Program Summary - Program.sas niaz final.sas

Execution Environment

Author:	sasdemo
File:	/folders/myfolders/Program.sas niaz final.sas
SAS Platform:	Linux LIN X64 2.6.32-504.12.2.el6.x86_64
SAS Host:	LOCALHOST
SAS Version:	9.04.01M2P07232014
SAS Locale:	en_US
Submission Time:	August 19, 2015 at 2:14:29 PM CDT
Browser Host:	50-83-3-143.CLIENT.MCHSI.COM
User Agent:	Mozilla/5.0 (Macintosh; Intel Mac OS X 10_10_3) AppleWebKit/600.5.17 (KHTML, like Gecko) Version/8.0.5 Safari/600.5.17
Application Server:	LOCALHOST

Code: Program.sas niaz final.sas

```
PROC SQL;
CREATE TABLE WORK.query AS
SELECT CASEID , Q1 , STATE , REGION , Q2C1 , Q2C1T1 , Q2C1T2 , Q2C2 , Q2C2T1 , Q2C2T2 , Q3A , Q3B , Q3C , Q3D , Q4 , Q5.
RUN;
QUIT;

PROC DATASETS NOLIST NODETAILS;
CONTENTS DATA=WORK.query OUT=WORK.details;
RUN;

PROC PRINT DATA=WORK.details;
RUN;
/*thesis */

libname sasintro "/folders/myfolders/";
proc print data =sasintro.dakota15;
run;

/*data cleaning proceess, delete missing variable*/

data sasintro.dakota15clean;
     set sasintro.dakota15;
     if Q19 = 9 then delete;
     if Q20 = 9 then delete;
     if Q21 = 9 then delete;
     if Q22 = 9 then delete;
     if Q22 = 5 then delete;
     if Q23 = 1 then Q23=12;
     if Q23 = 2 then Q23=12;
     if Q3a = . then delete;
     if Q3c=. then delete;
     if Q4=. then delete;
     if Q4=7 then delete;
run;
proc print data=sasintro.dakota15clean;run;


/*question 1*/

proc format;
value operation
      1='Have been a farm operator'
      2='less than 10 years as a farm operator'
      3='10 to 10 years as a farm operator'
      4='20 to 29 years as a farm operator'
      5='30 years or more as a farm operator'
      ;
run;

proc freq data=sasintro.dakota15;
label Q1 ='Years as a farm opertor';
tables Q1*State /norow nocol nocum;
format Q1 operation.;
run;
```

```
proc format;
value operation
      1='Have been a farm operator'
      2='less than 10 years as a farm operator'
      3='10 to 10 years as a farm operator'
      4='20 to 29 years as a farm operator'
      5='30 years or more as a farm operator'
      ;
run;

proc freq data=sasintro.dakota15;
label Q1 ='Years as a farm opertor';
tables Q1*Region /norow nocol nocum;
format Q1 operation.;
run;


/** Summary Statistics on 3a with Means**/

proc format;
value Farmland 10-259='1 to 259 acres'
               260-499='260 to 499 acres'
               500-999='500 to 999 acres'
               1000-1999='1000 to 1999 acres'
               2000-4999='2000 to 4999 acres'
               5000-high ='5000 acres and above';
run;

proc means data=sasintro.dakota15 n nmiss sum min max mean std maxdec=1;
class State;
var Q3a;
label CaseID='State'
      Q3a ='Total Farmland acres';
format CaseID State.;
run;


proc format;
value Farmland 10-259='1 to 259 acres'
               260-499='260 to 499 acres'
               500-999='500 to 999 acres'
               1000-1999='1000 to 1999 acres'
               2000-4999='2000 to 4999 acres'
               5000-high ='5000 acres and above';
run;

proc means data=sasintro.dakota15 n nmiss sum min max mean std maxdec=1;
class Region;
var Q3a;
label  Q3a ='Total Farmland acres';
run;

/** Summary Statistics on 3a, frequency with chisq**/

proc format;
value Farmland 10-259='1 to 259 acres'
               260-499='260 to 499 acres'
               500-999='500 to 999 acres'
               1000-1999='1000 to 1999 acres'
               2000-4999='2000 to 4999 acres'
               5000-high ='5000 acres and above';
run;

proc freq data=sasintro.dakota15;
tables Q3a*State /chisq;
format Q3a Farmland. ;
run;

proc format;
value Farmland 10-259='1 to 259 acres'
               260-499='260 to 499 acres'
               500-999='500 to 999 acres'
               1000-1999='1000 to 1999 acres'
               2000-4999='2000 to 4999 acres'
               5000-high ='5000 acres and above';
```

```
run;

proc freq data=sasintro.dakota15;
tables Q3a*Region /chisq;
format Q3a Farmland.;
run;


/** question 10 **/
proc format;
value Impact
      1='No Impact'
      2='Slight Impact'
      3='Some Impact'
      4='Quite a bit of Impact'
      5='Great Impact';
run;
proc freq data=sasintro.dakota15;
label CaseID='State'
      Q10a1='Changing crop prices'
      Q10a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)'
      Q10a3='Availability of crop and revenue insurance policies'
      Q10a4='Availability of drought-tolerant seed'
      Q10a5='Developments in pest management practices, including pest management seed traits'
      Q10a6='Improved crop yields (other than seed related traits)'
      Q10a7='Development of more efficient cropping equipment'
      Q10a8='Labor availability problems'
      Q10a9='Improving wildlife habitat'
      Q10a10='Changing weather /climate patterns';
tables(Q10A1 Q10A2 Q10a3 Q10A4 Q10A5 Q10A6 Q10A7 Q10A8 Q10A9 Q10A10)*CaseID/norow;
format CaseID State. Q10A1 Impact. Q10A2 Impact. Q10A3 Impact. Q10A4 Impact. Q10A5 Impact.
Q10A6 Impact. Q10A7 Impact. Q10A8 Impact. Q10A9 Impact. Q10A10 Impact.;
run;

*question 10b;

proc format;
value State
      1001-2182,9002='North Dakota'
      2183-4000,9001='South Dakota';
value gimpact
      01 = 'Changing crop prices'
      02 = 'Changing prices in input markets (seed, fertilizer, chemicals, etc.) '
      03 = 'Availability of crop and revenue insurance policies'
      04= 'Availability of drought-tolerant seed'
      05= 'Developments in pest management practices, including pest management seed traits'
      06= 'Improved crop yields (other than seed related traits) '
      07 = 'Development of more efficient cropping equipment'
      08 = 'Labor availability problems'
      09 = 'Improving wildlife habitat'
      10 = 'Changing weather /climate patterns';
proc tabulate data=sasintro.dakota15;
class CaseID Q10b;
label CaseID='State';
tables Q10b,CaseID;
format CaseID State. Q10b gimpact.;
run;

/*my data anyalysis start */

/* region and state based means analysis question 10a */

proc means data=sasintro.dakota15 n nmiss sum min max mean std maxdec=1;
class region;
var Q10A1 Q10A2 Q10a3 Q10A4 Q10A5 Q10A6 Q10A7 Q10A8 Q10A9 Q10A10;
label CaseID='State'
      Q10a1='Changing crop prices'
      Q10a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)'
      Q10a3='Availability of crop and revenue insurance policies'
      Q10a4='Availability of drought-tolerant seed'
      Q10a5='Developments in pest management practices, including pest management seed traits'
      Q10a6='Improved crop yields (other than seed related traits)'
      Q10a7='Development of more efficient cropping equipment'
      Q10a8='Labor availability problems'
      Q10a9='Improving wildlife habitat'
      Q10a10='Changing weather /climate patterns';
```

```
run;


proc means data=sasintro.dakota15 n nmiss sum min max mean std maxdec=1;
class state;
var Q10A1 Q10A2 Q10a3 Q10A4 Q10A5 Q10A6 Q10A7 Q10A8 Q10A9 Q10A10;
label CaseID='State'
      Q10a1='Changing crop prices'
      Q10a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)'
      Q10a3='Availability of crop and revenue insurance policies'
      Q10a4='Availability of drought-tolerant seed'
      Q10a5='Developments in pest management practices, including pest management seed traits'
      Q10a6='Improved crop yields (other than seed related traits)'
      Q10a7='Development of more efficient cropping equipment'
      Q10a8='Labor availability problems'
      Q10a9='Improving wildlife habitat'
      Q10a10='Changing weather /climate patterns';
run;


/*region and State based frequency analysis question 10a */


proc format;
value Impact
      1='No Impact'
      2='Slight Impact'
      3='Some Impact'
      4='Quite a bit of Impact'
      5='Great Impact';
run;
proc freq data=sasintro.dakota15;
tables (Q10A1 Q10A2 Q10a3 Q10A4 Q10A5 Q10A6 Q10A7 Q10A8 Q10A9 Q10A10)*Region / norow nocum;
format CaseID region. Q10A1 Impact. Q10A2 Impact. Q10A3 Impact. Q10A4 Impact. Q10A5 Impact.
Q10A6 Impact. Q10A7 Impact. Q10A8 Impact. Q10A9 Impact. Q10A10 Impact.;
run;


proc format;
value Impact
      1='No Impact'
      2='Slight Impact'
      3='Some Impact'
      4='Quite a bit of Impact'
      5='Great Impact';
run;
proc freq data=sasintro.dakota15;
tables (Q10A1 Q10A2 Q10a3 Q10A4 Q10A5 Q10A6 Q10A7 Q10A8 Q10A9 Q10A10)*State / norow nocum;
format CaseID State. Q10A1 Impact. Q10A2 Impact. Q10A3 Impact. Q10A4 Impact. Q10A5 Impact.
Q10A6 Impact. Q10A7 Impact. Q10A8 Impact. Q10A9 Impact. Q10A10 Impact.;
run;

/*region and State based frequency question 10a with chisq*/

proc format;
value Impact
      1='No Impact'
      2='Slight Impact'
      3='Some Impact'
      4='Quite a bit of Impact'
      5='Great Impact';
run;
proc freq data=sasintro.dakota15;
tables (Q10A1 Q10A2 Q10a3 Q10A4 Q10A5 Q10A6 Q10A7 Q10A8 Q10A9 Q10A10)*Region /chisq;
format CaseID region. Q10A1 Impact. Q10A2 Impact. Q10A3 Impact. Q10A4 Impact. Q10A5 Impact.
Q10A6 Impact. Q10A7 Impact. Q10A8 Impact. Q10A9 Impact. Q10A10 Impact.;
run;


proc format;
value Impact
      1='No Impact'
      2='Slight Impact'
      3='Some Impact'
      4='Quite a bit of Impact'
      5='Great Impact';
```

```
run;
proc freq data=sasintro.dakota15;
tables (Q10A1 Q10A2 Q10a3 Q10A4 Q10A5 Q10A6 Q10A7 Q10A8 Q10A9 Q10A10)*State / chisq;
format CaseID State. Q10A1 Impact. Q10A2 Impact. Q10A3 Impact. Q10A4 Impact. Q10A5 Impact.
Q10A6 Impact. Q10A7 Impact. Q10A8 Impact. Q10A9 Impact. Q10A10 Impact.;
run;


/* proc tabulute region and state based 10a*/

proc tabulate data=sasintro.dakota15 format=6.;
class Region;
var Q10A1 Q10A2 Q10a3 Q10A4 Q10A5 Q10A6 Q10A7 Q10A8 Q10A9 Q10A10;
label
      Q10a1='Changing crop prices'
      Q10a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)'
      Q10a3='Availability of crop and revenue insurance policies'
      Q10a4='Availability of drought-tolerant seed'
      Q10a5='Developments in pest management practices, including pest management seed traits'
      Q10a6='Improved crop yields (other than seed related traits)'
      Q10a7='Development of more efficient cropping equipment'
      Q10a8='Labor availability problems'
      Q10a9='Improving wildlife habitat'
      Q10a10='Changing weather /climate patterns';
table (Q10A1 Q10A2 Q10a3 Q10A4 Q10A5 Q10A6 Q10A7 Q10A8 Q10A9 Q10A10),Region;
run;


proc tabulate data=sasintro.dakota15 format=6.;
class State;
var Q10A1 Q10A2 Q10a3 Q10A4 Q10A5 Q10A6 Q10A7 Q10A8 Q10A9 Q10A10;
label
      Q10a1='Changing crop prices'
      Q10a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)'
      Q10a3='Availability of crop and revenue insurance policies'
      Q10a4='Availability of drought-tolerant seed'
      Q10a5='Developments in pest management practices, including pest management seed traits'
      Q10a6='Improved crop yields (other than seed related traits)'
      Q10a7='Development of more efficient cropping equipment'
      Q10a8='Labor availability problems'
      Q10a9='Improving wildlife habitat'
      Q10a10='Changing weather /climate patterns';
table (Q10A1 Q10A2 Q10a3 Q10A4 Q10A5 Q10A6 Q10A7 Q10A8 Q10A9 Q10A10),State;
run;


/* 10b tabulate analysis region and state based */

proc format;
value State
      1001-2182,9002='North Dakota'
      2183-4000,9001='South Dakota';
value gimpact
      01 = 'Changing crop prices'
      02 = 'Changing prices in input markets (seed, fertilizer, chemicals, etc.) '
      03 = 'Availability of crop and revenue insurance policies'
      04= 'Availability of drought-tolerant seed'
      05= 'Developments in pest management practices, including pest management seed traits'
      06= 'Improved crop yields (other than seed related traits) '
      07 = 'Development of more efficient cropping equipment'
      08 = 'Labor availability problems'
      09 = 'Improving wildlife habitat'
      10 = 'Changing weather /climate patterns';
proc tabulate data=sasintro.dakota15;
class CaseID Q10b;
label CaseID='State';
tables Q10b,CaseID;
format CaseID State. Q10b gimpact.;
run;

proc format;
value State
      1001-2182,9002='North Dakota'
      2183-4000,9001='South Dakota';
value gimpact
      01 = 'Changing crop prices'
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      02 = 'Changing prices in input markets (seed, fertilizer, chemicals, etc.) '
      03 = 'Availability of crop and revenue insurance policies'
      04= 'Availability of drought-tolerant seed'
      05= 'Developments in pest management practices, including pest management seed traits'
      06= 'Improved crop yields (other than seed related traits) '
      07 = 'Development of more efficient cropping equipment'
      08 = 'Labor availability problems'
      09 = 'Improving wildlife habitat'
      10 = 'Changing weather /climate patterns';
run;
proc tabulate data=sasintro.dakota15;
class region;
tables Q10B, Region;
format Q10B gimpact.;
run;


/* 10b means analysis region and state based */

proc format;
value State
      1001-2182,9002='North Dakota'
      2183-4000,9001='South Dakota';
value gimpact
      01 = 'Changing crop prices'
      02 = 'Changing prices in input markets (seed, fertilizer, chemicals, etc.) '
      03 = 'Availability of crop and revenue insurance policies'
      04= 'Availability of drought-tolerant seed'
      05= 'Developments in pest management practices, including pest management seed traits'
      06= 'Improved crop yields (other than seed related traits) '
      07 = 'Development of more efficient cropping equipment'
      08 = 'Labor availability problems'
      09 = 'Improving wildlife habitat'
      10 = 'Changing weather /climate patterns';
proc means data=sasintro.dakota15 n nmiss sum min max mean std maxdec=1;
class State;
var Q10B;
label CaseID='State';
format CaseID State. Q10b gimpact.;
run;



proc format;
value State
      1001-2182,9002='North Dakota'
      2183-4000,9001='South Dakota';
value gimpact
      01 = 'Changing crop prices'
      02 = 'Changing prices in input markets (seed, fertilizer, chemicals, etc.) '
      03 = 'Availability of crop and revenue insurance policies'
      04= 'Availability of drought-tolerant seed'
      05= 'Developments in pest management practices, including pest management seed traits'
      06= 'Improved crop yields (other than seed related traits) '
      07 = 'Development of more efficient cropping equipment'
      08 = 'Labor availability problems'
      09 = 'Improving wildlife habitat'
      10 = 'Changing weather /climate patterns';
proc means data=sasintro.dakota15 n nmiss sum min max mean std maxdec=1;
class Region;
var Q10B;
label CaseID='Region';
format CaseID Region. Q10b gimpact.;
run;

/* 10b frequency distribution analysis region and state based */

proc format;
value State
      1001-2182,9002='North Dakota'
      2183-4000,9001='South Dakota';
value gimpact
      01 = 'Changing crop prices'
      02 = 'Changing prices in input markets (seed, fertilizer, chemicals, etc.) '
      03 = 'Availability of crop and revenue insurance policies'
      04= 'Availability of drought-tolerant seed'
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```
      05= 'Developments in pest management practices, including pest management seed traits'
      06= 'Improved crop yields (other than seed related traits) '
      07 = 'Development of more efficient cropping equipment'
      08 = 'Labor availability problems'
      09 = 'Improving wildlife habitat'
      10 = 'Changing weather /climate patterns';
run;
proc  freq data=sasintro.dakota15;
label
       Q10B ='Greatest Impact on Changes in Land Use';
tables Q10B *Region / nocum;
format Q10B gimpact.;
run;


proc format;
value State
      1001-2182,9002='North Dakota'
      2183-4000,9001='South Dakota';
value gimpact
      01 = 'Changing crop prices'
      02 = 'Changing prices in input markets (seed, fertilizer, chemicals, etc.) '
      03 = 'Availability of crop and revenue insurance policies'
      04= 'Availability of drought-tolerant seed'
      05= 'Developments in pest management practices, including pest management seed traits'
      06= 'Improved crop yields (other than seed related traits) '
      07 = 'Development of more efficient cropping equipment'
      08 = 'Labor availability problems'
      09 = 'Improving wildlife habitat'
      10 = 'Changing weather /climate patterns';
proc  freq data=sasintro.dakota15;
label  CaseID='State'
       Q10B ='Greatest Impact on Changes in Land Use';
tables Q10B *CaseID / norow nocum;
format Q10B gimpact. CaseID State.;
run;

/* 10b frequency distribution analysis region and state based with chisq  */

proc format;
value State
      1001-2182,9002='North Dakota'
      2183-4000,9001='South Dakota';
value gimpact
      01 = 'Changing crop prices'
      02 = 'Changing prices in input markets (seed, fertilizer, chemicals, etc.) '
      03 = 'Availability of crop and revenue insurance policies'
      04= 'Availability of drought-tolerant seed'
      05= 'Developments in pest management practices, including pest management seed traits'
      06= 'Improved crop yields (other than seed related traits) '
      07 = 'Development of more efficient cropping equipment'
      08 = 'Labor availability problems'
      09 = 'Improving wildlife habitat'
      10 = 'Changing weather /climate patterns';
run;
proc  freq data=sasintro.dakota15;
label
       Q10B ='Greatest Impact on Changes in Land Use';
tables Q10B *Region / chisq;
format Q10B gimpact.;
run;


proc format;
value State
      1001-2182,9002='North Dakota'
      2183-4000,9001='South Dakota';
value gimpact
      01 = 'Changing crop prices'
      02 = 'Changing prices in input markets (seed, fertilizer, chemicals, etc.) '
      03 = 'Availability of crop and revenue insurance policies'
      04= 'Availability of drought-tolerant seed'
      05= 'Developments in pest management practices, including pest management seed traits'
      06= 'Improved crop yields (other than seed related traits) '
      07 = 'Development of more efficient cropping equipment'
      08 = 'Labor availability problems'
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      09 = 'Improving wildlife habitat'
      10 = 'Changing weather /climate patterns';
proc  freq data=sasintro.dakota15;
label  CaseID='State'
       Q10B ='Greatest Impact on Changes in Land Use';
tables Q10B *CaseID / chisq;
format Q10B gimpact. CaseID State.;
run;


/* Q10a and means by selected farm operator 19-23 plus 1, 3a and 4*/

proc format;
value Age
      1='19 to 34 years'
      2='35 to 49 years'
      3='50 to 59 years'
      4='60 to 69 years'
      5='70 years and over';

value Gender
      1='Male'
      2='Female';


value Education
      1='Less than high school'
      2='High school'
      3='Some college/technical school'
      4='4-year college degree'
      5='Advanced degree (Masters, etc.)';


value Occupation
      1='Farming or Ranching'
      2='Employment in off-farm job'
      3='Own/operate a non-farm business'
      4='Retired';

value Sales

      12='Less than $99,999'
      3='From $100,000 up to $249,999'
      4='From $250,000 up to $499,999'
      5='From $500,000 up to $999,999'
      6='$1 million or more';
run;


proc means data=sasintro.dakota15clean n nmiss sum min max mean std maxdec=1;
class Q19;
var Q10A1 Q10A2 Q10a3 Q10A4 Q10A5 Q10A6 Q10A7 Q10A8 Q10A9 Q10A10;
label Q19='Respondent Age'
      Q10a1='Changing crop prices'
      Q10a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)'
      Q10a3='Availability of crop and revenue insurance policies'
      Q10a4='Availability of drought-tolerant seed'
      Q10a5='Developments in pest management practices, including pest management seed traits'
      Q10a6='Improved crop yields (other than seed related traits)'
      Q10a7='Development of more efficient cropping equipment'
      Q10a8='Labor availability problems'
      Q10a9='Improving wildlife habitat'
      Q10a10='Changing weather /climate patterns';
format Q19 Age.;
run;


proc means data=sasintro.dakota15clean n nmiss sum min max mean std maxdec=1;
class Q20;
var Q10A1 Q10A2 Q10a3 Q10A4 Q10A5 Q10A6 Q10A7 Q10A8 Q10A9 Q10A10;
label Q20='Respondent Gender'
      Q10a1='Changing crop prices'
      Q10a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)'
      Q10a3='Availability of crop and revenue insurance policies'
      Q10a4='Availability of drought-tolerant seed'
      Q10a5='Developments in pest management practices, including pest management seed traits'
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      Q10a6='Improved crop yields (other than seed related traits)'
      Q10a7='Development of more efficient cropping equipment'
      Q10a8='Labor availability problems'
      Q10a9='Improving wildlife habitat'
      Q10a10='Changing weather /climate patterns';
format Q20 Gender.;
run;

proc means data=sasintro.dakota15clean n nmiss sum min max mean std maxdec=1;
class Q21;
var Q10A1 Q10A2 Q10a3 Q10A4 Q10A5 Q10A6 Q10A7 Q10A8 Q10A9 Q10A10;
label Q21='Respondent Level of Education'
      Q10a1='Changing crop prices'
      Q10a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)'
      Q10a3='Availability of crop and revenue insurance policies'
      Q10a4='Availability of drought-tolerant seed'
      Q10a5='Developments in pest management practices, including pest management seed traits'
      Q10a6='Improved crop yields (other than seed related traits)'
      Q10a7='Development of more efficient cropping equipment'
      Q10a8='Labor availability problems'
      Q10a9='Improving wildlife habitat'
      Q10a10='Changing weather /climate patterns';
format Q21 Education.;
run;

proc means data=sasintro.dakota15clean n nmiss sum min max mean std maxdec=1;
class Q22;
var Q10A1 Q10A2 Q10a3 Q10A4 Q10A5 Q10A6 Q10A7 Q10A8 Q10A9 Q10A10;
label Q22='Principal Occupation'
      Q10a1='Changing crop prices'
      Q10a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)'
      Q10a3='Availability of crop and revenue insurance policies'
      Q10a4='Availability of drought-tolerant seed'
      Q10a5='Developments in pest management practices, including pest management seed traits'
      Q10a6='Improved crop yields (other than seed related traits)'
      Q10a7='Development of more efficient cropping equipment'
      Q10a8='Labor availability problems'
      Q10a9='Improving wildlife habitat'
      Q10a10='Changing weather /climate patterns';
format Q22 Occupation.;
run;

proc means data=sasintro.dakota15clean n nmiss sum min max mean std maxdec=1;
class Q23;
var Q10A1 Q10A2 Q10a3 Q10A4 Q10A5 Q10A6 Q10A7 Q10A8 Q10A9 Q10A10;
label Q23='Gross farm/ranch sales'
      Q10a1='Changing crop prices'
      Q10a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)'
      Q10a3='Availability of crop and revenue insurance policies'
      Q10a4='Availability of drought-tolerant seed'
      Q10a5='Developments in pest management practices, including pest management seed traits'
      Q10a6='Improved crop yields (other than seed related traits)'
      Q10a7='Development of more efficient cropping equipment'
      Q10a8='Labor availability problems'
      Q10a9='Improving wildlife habitat'
      Q10a10='Changing weather /climate patterns';
format Q23 Sales.;
run;


proc format;
value operation
      1='Have been a farm operator'
      2='less than 10 years as a farm operator'
      3='10 to 10 years as a farm operator'
      4='20 to 29 years as a farm operator'
      5='30 years or more as a farm operator'
      ;
run;

proc means data=sasintro.dakota15clean n nmiss sum min max mean std maxdec=1;
class Q1;
var Q10A1 Q10A2 Q10a3 Q10A4 Q10A5 Q10A6 Q10A7 Q10A8 Q10A9 Q10A10;
label Q1 ='Years as a farm opertor'
      Q10a1='Changing crop prices'
      Q10a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)'
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      Q10a3='Availability of crop and revenue insurance policies'
      Q10a4='Availability of drought-tolerant seed'
      Q10a5='Developments in pest management practices, including pest management seed traits'
      Q10a6='Improved crop yields (other than seed related traits)'
      Q10a7='Development of more efficient cropping equipment'
      Q10a8='Labor availability problems'
      Q10a9='Improving wildlife habitat'
      Q10a10='Changing weather /climate patterns';
format Q1 operation.;
run;

proc format;
value Farmland 10-259='1 to 259 acres'
               260-499='260 to 499 acres'
               500-999='500 to 999 acres'
               1000-1999='1000 to 1999 acres'
               2000-4999='2000 to 4999 acres'
               5000-high ='5000 acres and above';
run;

proc means data=sasintro.dakota15clean n nmiss sum min max mean std maxdec=1;
class Q3a;
var Q10A1 Q10A2 Q10a3 Q10A4 Q10A5 Q10A6 Q10A7 Q10A8 Q10A9 Q10A10;
label Q3a ='Farmland acres operated in 2014'
      Q10a1='Changing crop prices'
      Q10a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)'
      Q10a3='Availability of crop and revenue insurance policies'
      Q10a4='Availability of drought-tolerant seed'
      Q10a5='Developments in pest management practices, including pest management seed traits'
      Q10a6='Improved crop yields (other than seed related traits)'
      Q10a7='Development of more efficient cropping equipment'
      Q10a8='Labor availability problems'
      Q10a9='Improving wildlife habitat'
      Q10a10='Changing weather /climate patterns';
format Q3a Farmland.;
run;

proc format;
value Ownership
      1='Own all acres farmed'
      2='Own most acres farmed, rented the remainder'
      3='Own and rent roughly equal number of farmland acres'
      4='Rented most of the acres farmed,owned the remainder'
      5='Rented all acres farmland'
      6='Professional farm manager';
run;

proc means data=sasintro.dakota15clean n nmiss sum min max mean std maxdec=1;
class Q4;
var Q10A1 Q10A2 Q10a3 Q10A4 Q10A5 Q10A6 Q10A7 Q10A8 Q10A9 Q10A10;
label Q4 ='Best Ownership Status in 2014'
      Q10a1='Changing crop prices'
      Q10a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)'
      Q10a3='Availability of crop and revenue insurance policies'
      Q10a4='Availability of drought-tolerant seed'
      Q10a5='Developments in pest management practices, including pest management seed traits'
      Q10a6='Improved crop yields (other than seed related traits)'
      Q10a7='Development of more efficient cropping equipment'
      Q10a8='Labor availability problems'
      Q10a9='Improving wildlife habitat'
      Q10a10='Changing weather /climate patterns';
format Q4 Ownership.;
run;


/* Q10a and frequency distribution by selected farm operator 19-23 plus 1, 3a and 4*/

proc format;
value Age
      1='19 to 34 years'
      2='35 to 49 years'
      3='50 to 59 years'
      4='60 to 69 years'
      5='70 years and over';

value Gender
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      1='Male'
      2='Female';

value Education
      1='Less than high school'
      2='High school'
      3='Some college/technical school'
      4='4-year college degree'
      5='Advanced degree (Masters, etc.)';

value Occupation
      1='Farming or Ranching'
      2='Employment in off-farm job'
      3='Own/operate a non-farm business'
      4='Retired';

value Sales

      12='Less than $99,999'
      3='From $100,000 up to $249,999'
      4='From $250,000 up to $499,999'
      5='From $500,000 up to $999,999'
      6='$1 million or more'

proc format;
value Impact
      1='No Impact'
      2='Slight Impact'
      3='Some Impact'
      4='Quite a bit of Impact'
      5='Great Impact';
run;


proc freq data=sasintro.dakota15clean;
label Q19='Respondent Age'
      Q10a1='Changing crop prices'
      Q10a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)'
      Q10a3='Availability of crop and revenue insurance policies'
      Q10a4='Availability of drought-tolerant seed'
      Q10a5='Developments in pest management practices, including pest management seed traits'
      Q10a6='Improved crop yields (other than seed related traits)'
      Q10a7='Development of more efficient cropping equipment'
      Q10a8='Labor availability problems'
      Q10a9='Improving wildlife habitat'
      Q10a10='Changing weather /climate patterns';
tables (Q10A1 Q10A2 Q10a3 Q10A4 Q10A5 Q10A6 Q10A7 Q10A8 Q10A9 Q10A10)*Q19/norow;
format Q19 Age. Q10A1 Impact. Q10A2 Impact. Q10A3 Impact. Q10A4 Impact. Q10A5 Impact.
Q10A6 Impact. Q10A7 Impact. Q10A8 Impact. Q10A9 Impact. Q10A10 Impact.;
run;

proc freq data=sasintro.dakota15clean;
label Q20='Respondent Gender'
      Q10a1='Changing crop prices'
      Q10a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)'
      Q10a3='Availability of crop and revenue insurance policies'
      Q10a4='Availability of drought-tolerant seed'
      Q10a5='Developments in pest management practices, including pest management seed traits'
      Q10a6='Improved crop yields (other than seed related traits)'
      Q10a7='Development of more efficient cropping equipment'
      Q10a8='Labor availability problems'
      Q10a9='Improving wildlife habitat'
      Q10a10='Changing weather /climate patterns';
tables (Q10A1 Q10A2 Q10a3 Q10A4 Q10A5 Q10A6 Q10A7 Q10A8 Q10A9 Q10A10)*Q20/norow;
format Q20 Gender. Q10A1 Impact. Q10A2 Impact. Q10A3 Impact. Q10A4 Impact. Q10A5 Impact.
Q10A6 Impact. Q10A7 Impact. Q10A8 Impact. Q10A9 Impact. Q10A10 Impact.;
run;

proc freq data=sasintro.dakota15clean;
label Q21='Respondent Level of Education'
      Q10a1='Changing crop prices'
      Q10a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)'
      Q10a3='Availability of crop and revenue insurance policies'
      Q10a4='Availability of drought-tolerant seed'
      Q10a5='Developments in pest management practices, including pest management seed traits'
      Q10a6='Improved crop yields (other than seed related traits)'
```

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      Q10a7='Development of more efficient cropping equipment'
      Q10a8='Labor availability problems'
      Q10a9='Improving wildlife habitat'
      Q10a10='Changing weather /climate patterns';
tables (Q10A1 Q10A2 Q10a3 Q10A4 Q10A5 Q10A6 Q10A7 Q10A8 Q10A9 Q10A10)*Q21/norow;
format Q21 Education. Q10A1 Impact. Q10A2 Impact. Q10A3 Impact. Q10A4 Impact. Q10A5 Impact.
Q10A6 Impact. Q10A7 Impact. Q10A8 Impact. Q10A9 Impact. Q10A10 Impact.;
run;

proc freq data=sasintro.dakota15clean;
label Q22='Principal Occupation'
      Q10a1='Changing crop prices'
      Q10a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)'
      Q10a3='Availability of crop and revenue insurance policies'
      Q10a4='Availability of drought-tolerant seed'
      Q10a5='Developments in pest management practices, including pest management seed traits'
      Q10a6='Improved crop yields (other than seed related traits)'
      Q10a7='Development of more efficient cropping equipment'
      Q10a8='Labor availability problems'
      Q10a9='Improving wildlife habitat'
      Q10a10='Changing weather /climate patterns';
tables (Q10A1 Q10A2 Q10a3 Q10A4 Q10A5 Q10A6 Q10A7 Q10A8 Q10A9 Q10A10)*Q22/norow;
format Q22 Occupation. Q10A1 Impact. Q10A2 Impact. Q10A3 Impact. Q10A4 Impact. Q10A5 Impact.
Q10A6 Impact. Q10A7 Impact. Q10A8 Impact. Q10A9 Impact. Q10A10 Impact.;
run;

proc freq data=sasintro.dakota15clean;
label Q23='Gross farm/ranch sales'
      Q10a1='Changing crop prices'
      Q10a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)'
      Q10a3='Availability of crop and revenue insurance policies'
      Q10a4='Availability of drought-tolerant seed'
      Q10a5='Developments in pest management practices, including pest management seed traits'
      Q10a6='Improved crop yields (other than seed related traits)'
      Q10a7='Development of more efficient cropping equipment'
      Q10a8='Labor availability problems'
      Q10a9='Improving wildlife habitat'
      Q10a10='Changing weather /climate patterns';
tables (Q10A1 Q10A2 Q10a3 Q10A4 Q10A5 Q10A6 Q10A7 Q10A8 Q10A9 Q10A10)*Q23/norow;
format Q23 Sales. Q10A1 Impact. Q10A2 Impact. Q10A3 Impact. Q10A4 Impact. Q10A5 Impact.
Q10A6 Impact. Q10A7 Impact. Q10A8 Impact. Q10A9 Impact. Q10A10 Impact.;
run;


proc format;
value operation
      1='Have been a farm operator'
      2='less than 10 years as a farm operator'
      3='10 to 10 years as a farm operator'
      4='20 to 29 years as a farm operator'
      5='30 years or more as a farm operator'
      ;
run;

proc freq data=sasintro.dakota15clean;
label Q1 ='Years as a farm opertor'
      Q10a1='Changing crop prices'
      Q10a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)'
      Q10a3='Availability of crop and revenue insurance policies'
      Q10a4='Availability of drought-tolerant seed'
      Q10a5='Developments in pest management practices, including pest management seed traits'
      Q10a6='Improved crop yields (other than seed related traits)'
      Q10a7='Development of more efficient cropping equipment'
      Q10a8='Labor availability problems'
      Q10a9='Improving wildlife habitat'
      Q10a10='Changing weather /climate patterns';
tables (Q10A1 Q10A2 Q10a3 Q10A4 Q10A5 Q10A6 Q10A7 Q10A8 Q10A9 Q10A10)*Q1/norow;
format Q1 Operation. Q10A1 Impact. Q10A2 Impact. Q10A3 Impact. Q10A4 Impact. Q10A5 Impact.
Q10A6 Impact. Q10A7 Impact. Q10A8 Impact. Q10A9 Impact. Q10A10 Impact.;
run;

proc format;
value Farmland 10-259='1 to 259 acres'
               260-499='260 to 499 acres'
               500-999='500 to 999 acres'
               1000-1999='1000 to 1999 acres'
```

```
              2000-4999='2000 to 4999 acres'
              5000-high ='5000 acres and above';
run;

proc freq data=sasintro.dakota15clean;
label Q3a ='Farmland Acres Operated in 2014'
      Q10a1='Changing crop prices'
      Q10a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)'
      Q10a3='Availability of crop and revenue insurance policies'
      Q10a4='Availability of drought-tolerant seed'
      Q10a5='Developments in pest management practices, including pest management seed traits'
      Q10a6='Improved crop yields (other than seed related traits)'
      Q10a7='Development of more efficient cropping equipment'
      Q10a8='Labor availability problems'
      Q10a9='Improving wildlife habitat'
      Q10a10='Changing weather /climate patterns';
tables (Q10A1 Q10A2 Q10a3 Q10A4 Q10A5 Q10A6 Q10A7 Q10A8 Q10A9 Q10A10)*Q3a/norow;
format Q3a Farmland. Q10A1 Impact. Q10A2 Impact. Q10A3 Impact. Q10A4 Impact. Q10A5 Impact.
Q10A6 Impact. Q10A7 Impact. Q10A8 Impact. Q10A9 Impact. Q10A10 Impact.;
run;


proc format;
value Ownership
      1='Own all acres farmed'
      2='Own most acres farmed, rented the remainder'
      3='Own and rent roughly equal number of farmland acres'
      4='Rented most of the acres farmed,owned the remainder'
      5='Rented all acres farmland'
      6='Professional farm manager';
run;

proc freq data=sasintro.dakota15clean;
label Q4 ='Best Ownersip Status in 2014'
      Q10a1='Changing crop prices'
      Q10a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)'
      Q10a3='Availability of crop and revenue insurance policies'
      Q10a4='Availability of drought-tolerant seed'
      Q10a5='Developments in pest management practices, including pest management seed traits'
      Q10a6='Improved crop yields (other than seed related traits)'
      Q10a7='Development of more efficient cropping equipment'
      Q10a8='Labor availability problems'
      Q10a9='Improving wildlife habitat'
      Q10a10='Changing weather /climate patterns';
tables(Q10A1 Q10A2 Q10a3 Q10A4 Q10A5 Q10A6 Q10A7 Q10A8 Q10A9 Q10A10)*Q4/norow;
format Q4 Ownership. Q10A1 Impact. Q10A2 Impact. Q10A3 Impact. Q10A4 Impact. Q10A5 Impact.
Q10A6 Impact. Q10A7 Impact. Q10A8 Impact. Q10A9 Impact. Q10A10 Impact.;
run;

/* 10a frequency distribution by Selected Farm operator(19-23, 1,3a and 4 with chisqu*/

proc format;
value Age
      1='19 to 34 years'
      2='35 to 49 years'
      3='50 to 59 years'
      4='60 to 69 years'
      5='70 years and over';

value Gender
      1='Male'
      2='Female';

value Education
      1='Less than high school'
      2='High school'
      3='Some college/technical school'
      4='4-year college degree'
      5='Advanced degree (Masters, etc.)';

value Occupation
      1='Farming or Ranching'
      2='Employment in off-farm job'
      3='Own/operate a non-farm business'
      4='Retired';
```

```
value Sales

      12='Less than $99,999'
      3='From $100,000 up to $249,999'
      4='From $250,000 up to $499,999'
      5='From $500,000 up to $999,999'
      6='$1 million or more';


proc format;
value Impact
      1='No Impact'
      2='Slight Impact'
      3='Some Impact'
      4='Quite a bit of Impact'
      5='Great Impact';
run;

proc freq data=sasintro.dakota15clean;
label Q19='Respondent Age'
      Q10a1='Changing crop prices'
      Q10a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)'
      Q10a3='Availability of crop and revenue insurance policies'
      Q10a4='Availability of drought-tolerant seed'
      Q10a5='Developments in pest management practices, including pest management seed traits'
      Q10a6='Improved crop yields (other than seed related traits)'
      Q10a7='Development of more efficient cropping equipment'
      Q10a8='Labor availability problems'
      Q10a9='Improving wildlife habitat'
      Q10a10='Changing weather /climate patterns';
tables (Q10A1 Q10A2 Q10a3 Q10A4 Q10A5 Q10A6 Q10A7 Q10A8 Q10A9 Q10A10)*Q19/chisq;
format Q19 Age. Q10A1 Impact. Q10A2 Impact. Q10A3 Impact. Q10A4 Impact. Q10A5 Impact.
Q10A6 Impact. Q10A7 Impact. Q10A8 Impact. Q10A9 Impact. Q10A10 Impact.;
run;

proc freq data=sasintro.dakota15clean;
label Q20='Respondent Gender'
      Q10a1='Changing crop prices'
      Q10a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)'
      Q10a3='Availability of crop and revenue insurance policies'
      Q10a4='Availability of drought-tolerant seed'
      Q10a5='Developments in pest management practices, including pest management seed traits'
      Q10a6='Improved crop yields (other than seed related traits)'
      Q10a7='Development of more efficient cropping equipment'
      Q10a8='Labor availability problems'
      Q10a9='Improving wildlife habitat'
      Q10a10='Changing weather /climate patterns';
tables (Q10A1 Q10A2 Q10a3 Q10A4 Q10A5 Q10A6 Q10A7 Q10A8 Q10A9 Q10A10)*Q20/chisq;
format Q20 Gender. Q10A1 Impact. Q10A2 Impact. Q10A3 Impact. Q10A4 Impact. Q10A5 Impact.
Q10A6 Impact. Q10A7 Impact. Q10A8 Impact. Q10A9 Impact. Q10A10 Impact.;
run;

proc freq data=sasintro.dakota15clean;
label Q21='Respondent Level of Education'
      Q10a1='Changing crop prices'
      Q10a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)'
      Q10a3='Availability of crop and revenue insurance policies'
      Q10a4='Availability of drought-tolerant seed'
      Q10a5='Developments in pest management practices, including pest management seed traits'
      Q10a6='Improved crop yields (other than seed related traits)'
      Q10a7='Development of more efficient cropping equipment'
      Q10a8='Labor availability problems'
      Q10a9='Improving wildlife habitat'
      Q10a10='Changing weather /climate patterns';
tables (Q10A1 Q10A2 Q10a3 Q10A4 Q10A5 Q10A6 Q10A7 Q10A8 Q10A9 Q10A10)*Q21/chisq;
format Q21 Education. Q10A1 Impact. Q10A2 Impact. Q10A3 Impact. Q10A4 Impact. Q10A5 Impact.
Q10A6 Impact. Q10A7 Impact. Q10A8 Impact. Q10A9 Impact. Q10A10 Impact.;
run;

proc freq data=sasintro.dakota15clean;
label Q22='Principal Occupation'
      Q10a1='Changing crop prices'
      Q10a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)'
      Q10a3='Availability of crop and revenue insurance policies'
      Q10a4='Availability of drought-tolerant seed'
      Q10a5='Developments in pest management practices, including pest management seed traits'
```

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      Q10a6='Improved crop yields (other than seed related traits)'
      Q10a7='Development of more efficient cropping equipment'
      Q10a8='Labor availability problems'
      Q10a9='Improving wildlife habitat'
      Q10a10='Changing weather /climate patterns';
tables (Q10A1 Q10A2 Q10a3 Q10A4 Q10A5 Q10A6 Q10A7 Q10A8 Q10A9 Q10A10)*Q22/chisq;
format Q22 Occupation. Q10A1 Impact. Q10A2 Impact. Q10A3 Impact. Q10A4 Impact. Q10A5 Impact.
Q10A6 Impact. Q10A7 Impact. Q10A8 Impact. Q10A9 Impact. Q10A10 Impact.;
run;

proc freq data=sasintro.dakota15clean;
label Q23='Gross farm/ranch sales'
      Q10a1='Changing crop prices'
      Q10a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)'
      Q10a3='Availability of crop and revenue insurance policies'
      Q10a4='Availability of drought-tolerant seed'
      Q10a5='Developments in pest management practices, including pest management seed traits'
      Q10a6='Improved crop yields (other than seed related traits)'
      Q10a7='Development of more efficient cropping equipment'
      Q10a8='Labor availability problems'
      Q10a9='Improving wildlife habitat'
      Q10a10='Changing weather /climate patterns';
tables (Q10A1 Q10A2 Q10a3 Q10A4 Q10A5 Q10A6 Q10A7 Q10A8 Q10A9 Q10A10)*Q23/chisq;
format Q23 Sales. Q10A1 Impact. Q10A2 Impact. Q10A3 Impact. Q10A4 Impact. Q10A5 Impact.
Q10A6 Impact. Q10A7 Impact. Q10A8 Impact. Q10A9 Impact. Q10A10 Impact.;
run;


proc format;
value operation
      1='Have been a farm operator'
      2='less than 10 years as a farm operator'
      3='10 to 10 years as a farm operator'
      4='20 to 29 years as a farm operator'
      5='30 years or more as a farm operator'
      ;
run;

proc freq data=sasintro.dakota15clean;
label Q1 ='Years as a farm opertor'
      Q10a1='Changing crop prices'
      Q10a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)'
      Q10a3='Availability of crop and revenue insurance policies'
      Q10a4='Availability of drought-tolerant seed'
      Q10a5='Developments in pest management practices, including pest management seed traits'
      Q10a6='Improved crop yields (other than seed related traits)'
      Q10a7='Development of more efficient cropping equipment'
      Q10a8='Labor availability problems'
      Q10a9='Improving wildlife habitat'
      Q10a10='Changing weather /climate patterns';
tables (Q10A1 Q10A2 Q10a3 Q10A4 Q10A5 Q10A6 Q10A7 Q10A8 Q10A9 Q10A10)*Q1/chisq;
format Q1 Operation. Q10A1 Impact. Q10A2 Impact. Q10A3 Impact. Q10A4 Impact. Q10A5 Impact.
Q10A6 Impact. Q10A7 Impact. Q10A8 Impact. Q10A9 Impact. Q10A10 Impact.;
run;

proc format;
value Farmland 10-259='1 to 259 acres'
               260-499='260 to 499 acres'
               500-999='500 to 999 acres'
               1000-1999='1000 to 1999 acres'
               2000-4999='2000 to 4999 acres'
               5000-high ='5000 acres and above';
run;

proc freq data=sasintro.dakota15clean;
label Q3a ='Farmland Acres Operated in 2014'
      Q10a1='Changing crop prices'
      Q10a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)'
      Q10a3='Availability of crop and revenue insurance policies'
      Q10a4='Availability of drought-tolerant seed'
      Q10a5='Developments in pest management practices, including pest management seed traits'
      Q10a6='Improved crop yields (other than seed related traits)'
      Q10a7='Development of more efficient cropping equipment'
      Q10a8='Labor availability problems'
      Q10a9='Improving wildlife habitat'
      Q10a10='Changing weather /climate patterns';
```

```
tables (Q10A1 Q10A2 Q10a3 Q10A4 Q10A5 Q10A6 Q10A7 Q10A8 Q10A9 Q10A10)*Q3a/chisq;
format Q3a Farmland. Q10A1 Impact. Q10A2 Impact. Q10A3 Impact. Q10A4 Impact. Q10A5 Impact.
Q10A6 Impact. Q10A7 Impact. Q10A8 Impact. Q10A9 Impact. Q10A10 Impact.;
run;


proc format;
value Ownership
      1='Own all acres farmed'
      2='Own most acres farmed, rented the remainder'
      3='Own and rent roughly equal number of farmland acres'
      4='Rented most of the acres farmed,owned the remainder'
      5='Rented all acres farmland'
      6='Professional farm manager';
run;

proc freq data=sasintro.dakota15clean;
label Q4 ='Best Ownersip Status in 2014'
      Q10a1='Changing crop prices'
      Q10a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)'
      Q10a3='Availability of crop and revenue insurance policies'
      Q10a4='Availability of drought-tolerant seed'
      Q10a5='Developments in pest management practices, including pest management seed traits'
      Q10a6='Improved crop yields (other than seed related traits)'
      Q10a7='Development of more efficient cropping equipment'
      Q10a8='Labor availability problems'
      Q10a9='Improving wildlife habitat'
      Q10a10='Changing weather /climate patterns';
tables(Q10A1 Q10A2 Q10a3 Q10A4 Q10A5 Q10A6 Q10A7 Q10A8 Q10A9 Q10A10)*Q4/chisq;
format Q4 Ownership. Q10A1 Impact. Q10A2 Impact. Q10A3 Impact. Q10A4 Impact. Q10A5 Impact.
Q10A6 Impact. Q10A7 Impact. Q10A8 Impact. Q10A9 Impact. Q10A10 Impact.;
run;


/*Qestion 3, More complete analysis of land use conversiob decisions (Q9 iteams)
 and land use conversion intentions (Q11 items) */

/*part one Q9 analysis with means*/


proc means data=sasintro.dakota15clean n nmiss sum min max mean std maxdec=1;
class CaseID State;
var Q9aYN Q9bYN Q9cYN Q9dYN Q9eYN Q9fYN ;
label CaseID='State'
      Q9aYN='Conversion of native grass to cropland'
      Q9bYN='Conversion of tamend grassland to cropland'
      Q9cYN='Conversion of CRP land to cropland'
      Q9dYN='Conversion of CRP land to pasture/hay'
      Q9eYN='Enrollment of farmland acres to CRP'
      Q9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program';
format CaseID State. Q9aYN Response. Q9bYN Response. Q9cYN Response. Q9dYN Response.
Q9eYN Response. Q9fYN Response.;
run;

proc means data=sasintro.dakota15clean n nmiss sum min max mean std maxdec=1;
class Region;
var Q9aYN Q9bYN Q9cYN Q9dYN Q9eYN Q9fYN ;
label
      Q9aYN='Conversion of native grass to cropland'
      Q9bYN='Conversion of tamend grassland to cropland'
      Q9cYN='Conversion of CRP land to cropland'
      Q9dYN='Conversion of CRP land to pasture/hay'
      Q9eYN='Enrollment of farmland acres to CRP'
      Q9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program';
format  Q9aYN Response. Q9bYN Response. Q9cYN Response. Q9dYN Response.
Q9eYN Response. Q9fYN Response.;
run;


/*part one Q9 analysis with frequency*/

proc format;
value Response
      1='Yes'
      2='No';
run;
```

```
proc freq data=sasintro.dakota15clean;
label CaseID='State'
      Q9aYN='Conversion of native grass to cropland'
      Q9bYN='Conversion of tamend grassland to cropland'
      Q9cYN='Conversion of CRP land to cropland'
      Q9dYN='Conversion of CRP land to pasture/hay'
      Q9eYN='Enrollment of farmland acres to CRP'
      Q9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program';
table (Q9aYN Q9bYN Q9cYN Q9dYN Q9eYN Q9fYN)*CaseID/norow;
format CaseID State. Q9aYN Response. Q9bYN Response. Q9cYN Response. Q9dYN Response.
Q9eYN Response. Q9fYN Response.;
run;


proc format;
value Response
      1='Yes'
      2='No';
run;
proc freq data=sasintro.dakota15clean;
label
      Q9aYN='Conversion of native grass to cropland'
      Q9bYN='Conversion of tamend grassland to cropland'
      Q9cYN='Conversion of CRP land to cropland'
      Q9dYN='Conversion of CRP land to pasture/hay'
      Q9eYN='Enrollment of farmland acres to CRP'
      Q9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program';
table (Q9aYN Q9bYN Q9cYN Q9dYN Q9eYN Q9fYN)* Region/norow;
format  Q9aYN Response. Q9bYN Response. Q9cYN Response. Q9dYN Response.
Q9eYN Response. Q9fYN Response.;
run;

/*part one Q9 analysis with frequency chisq */

proc format;
value Response
      1='Yes'
      2='No';
run;
proc freq data=sasintro.dakota15clean;
label CaseID='State'
      Q9aYN='Conversion of native grass to cropland'
      Q9bYN='Conversion of tamend grassland to cropland'
      Q9cYN='Conversion of CRP land to cropland'
      Q9dYN='Conversion of CRP land to pasture/hay'
      Q9eYN='Enrollment of farmland acres to CRP'
      Q9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program';
table (Q9aYN Q9bYN Q9cYN Q9dYN Q9eYN Q9fYN)*CaseID/chisq;
format CaseID State. Q9aYN Response. Q9bYN Response. Q9cYN Response. Q9dYN Response.
Q9eYN Response. Q9fYN Response.;
run;


proc format;
value Response
      1='Yes'
      2='No';
run;
proc freq data=sasintro.dakota15clean;
label
      Q9aYN='Conversion of native grass to cropland'
      Q9bYN='Conversion of tamend grassland to cropland'
      Q9cYN='Conversion of CRP land to cropland'
      Q9dYN='Conversion of CRP land to pasture/hay'
      Q9eYN='Enrollment of farmland acres to CRP'
      Q9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program';
table (Q9aYN Q9bYN Q9cYN Q9dYN Q9eYN Q9fYN)* Region/chisq;
format  Q9aYN Response. Q9bYN Response. Q9cYN Response. Q9dYN Response.
Q9eYN Response. Q9fYN Response.;
run;

/*part one Q9 analysis with tabulate*/

proc tabulate data=sasintro.dakota15clean format=6.;
class CaseID;
var Q9aYN Q9bYN Q9cYN Q9dYN Q9eYN Q9fYN;
```

```
label CaseID='State'
      Q9aYN='Conversion of native grass to cropland'
      Q9bYN='Conversion of tamend grassland to cropland'
      Q9cYN='Conversion of CRP land to cropland'
      Q9dYN='Conversion of CRP land to pasture/hay'
      Q9eYN='Enrollment of farmland acres to CRP'
      Q9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program';
table (Q9aYN Q9bYN Q9cYN Q9dYN Q9eYN Q9fYN), CaseID;
format CaseID State.;
run;


proc tabulate data=sasintro.dakota15clean format=6.;
class Region;
var Q9aYN Q9bYN Q9cYN Q9dYN Q9eYN Q9fYN;
label
      Q9aYN='Conversion of native grass to cropland'
      Q9bYN='Conversion of tamend grassland to cropland'
      Q9cYN='Conversion of CRP land to cropland'
      Q9dYN='Conversion of CRP land to pasture/hay'
      Q9eYN='Enrollment of farmland acres to CRP'
      Q9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program';
table (Q9aYN Q9bYN Q9cYN Q9dYN Q9eYN Q9fYN), Region;
run;


/*part two Q9 state and region based analysis with means*/

proc format;
value Farmacres  0 ='0 acres'
                1-99 = '1 to 99 acres'
               100-179 ='100 to 179 acres'
               180-259 ='180 to 259 acres'
               260-499 ='260 to 499 acres'
               500-high ='500 acrsa and above';
run;
proc means data=sasintro.dakota15 n nmiss sum min max mean std maxdec=1;
class CaseID;
var Q9aAC Q9bAC Q9cAC Q9dAC Q9eAC Q9fAC ;
label CaseID='State'
      Q9aAC='Conversion of native grass to cropland'
      Q9bAC='Conversion of tamend grassland to cropland'
      Q9cAC='Conversion of CRP land to cropland'
      Q9dAC='Conversion of CRP land to pasture/hay'
      Q9eAC='Enrollment of farmland acres to CRP'
      Q9fAC='Enrollment of land into WRP (wetland reserve) or grass easement program';
format CaseID State.;
run;

proc means data=sasintro.dakota15 n nmiss sum min max mean std maxdec=1;
class Region;
var Q9aAC Q9bAC Q9cAC Q9dAC Q9eAC Q9fAC ;
label
      Q9aAC='Conversion of native grass to cropland'
      Q9bAC='Conversion of tamend grassland to cropland'
      Q9cAC='Conversion of CRP land to cropland'
      Q9dAC='Conversion of CRP land to pasture/hay'
      Q9eAC='Enrollment of farmland acres to CRP'
      Q9fAC='Enrollment of land into WRP (wetland reserve) or grass easement program';
run;

/*part two, Q9 state and region based analysis with frequency*/

proc format;
value Farmacres  0 ='0 acres'
                1-99 = '1 to 99 acres'
               100-179 ='100 to 179 acres'
               180-259 ='180 to 259 acres'
               260-499 ='260 to 499 acres'
               500-high ='500 acres and above';
run;
proc freq data=sasintro.dakota15;
label CaseID='State'
      Q9aAC='Conversion of native grass to cropland'
      Q9bAC='Conversion of tamend grassland to cropland'
      Q9cAC='Conversion of CRP land to cropland'
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```
      Q9dAC='Conversion of CRP land to pasture/hay'
      Q9eAC='Enrollment of farmland acres to CRP'
      Q9fAC='Enrollment of land into WRP (wetland reserve) or grass easement program';
table (Q9aAC Q9bAC Q9cAC Q9dAC Q9eAC Q9fAC)*CaseID/norow;
format CaseID State. Q9aAC Farmacres. Q9bAC Farmacres. Q9cAC Farmacres. Q9dAC Farmacres.
Q9eAC Farmacres. Q9fAC Farmacres.;
run;


proc freq data=sasintro.dakota15;
label
      Q9aAC='Conversion of native grass to cropland'
      Q9bAC='Conversion of tamend grassland to cropland'
      Q9cAC='Conversion of CRP land to cropland'
      Q9dAC='Conversion of CRP land to pasture/hay'
      Q9eAC='Enrollment of farmland acres to CRP'
      Q9fAC='Enrollment of land into WRP (wetland reserve) or grass easement program';
table (Q9aAC Q9bAC Q9cAC Q9dAC Q9eAC Q9fAC)*Region/norow;
format Q9aAC Farmacres. Q9bAC Farmacres. Q9cAC Farmacres. Q9dAC Farmacres.
Q9eAC Farmacres. Q9fAC Farmacres.;
run;

/*part two, Q9 state and region based analysis with frequency with chisq*/

proc format;
value Farmacres  0 ='0 acres'
                1-99 = '1 to 99 acres'
               100-179 ='100 to 179 acres'
               180-259 ='180 to 259 acres'
               260-499 ='260 to 499 acres'
               500-high ='500 acrsa and above';
run;
proc freq data=sasintro.dakota15;
label CaseID='State'
      Q9aAC='Conversion of native grass to cropland'
      Q9bAC='Conversion of tamend grassland to cropland'
      Q9cAC='Conversion of CRP land to cropland'
      Q9dAC='Conversion of CRP land to pasture/hay'
      Q9eAC='Enrollment of farmland acres to CRP'
      Q9fAC='Enrollment of land into WRP (wetland reserve) or grass easement program';
table (Q9aAC Q9bAC Q9cAC Q9dAC Q9eAC Q9fAC)*CaseID/chisq;
format CaseID State. Q9aAC Farmacres. Q9bAC Farmacres. Q9cAC Farmacres. Q9dAC Farmacres.
Q9eAC Farmacres. Q9fAC Farmacres.;
run;


proc freq data=sasintro.dakota15;
label
      Q9aAC='Conversion of native grass to cropland'
      Q9bAC='Conversion of tamend grassland to cropland'
      Q9cAC='Conversion of CRP land to cropland'
      Q9dAC='Conversion of CRP land to pasture/hay'
      Q9eAC='Enrollment of farmland acres to CRP'
      Q9fAC='Enrollment of land into WRP (wetland reserve) or grass easement program';
table (Q9aAC Q9bAC Q9cAC Q9dAC Q9eAC Q9fAC)*Region/chisq;
format Q9aAC Farmacres. Q9bAC Farmacres. Q9cAC Farmacres. Q9dAC Farmacres.
Q9eAC Farmacres. Q9fAC Farmacres.;
run;


/*part two, state and region Q9 analysis with tabulate*/

proc tabulate data=sasintro.dakota15 format=6.;
class CaseID;
var Q9aAC Q9bAC Q9cAC Q9dAC Q9eAC Q9fAC;
label CaseID='State'
      Q9aAC='Conversion of native grass to cropland'
      Q9bAC='Conversion of tamend grassland to cropland'
      Q9cAC='Conversion of CRP land to cropland'
      Q9dAC='Conversion of CRP land to pasture/hay'
      Q9eAC='Enrollment of farmland acres to CRP'
      Q9fAC='Enrollment of land into WRP (wetland reserve) or grass easement program';
table (Q9aAC Q9bAC Q9cAC Q9dAC Q9eAC Q9fAC),CaseID;
format CaseID State.;
run;
```

```
proc tabulate data=sasintro.dakota15 format=6.;
class Region;
var Q9aAC Q9bAC Q9cAC Q9dAC Q9eAC Q9fAC;
label
      Q9aAC='Conversion of native grass to cropland'
      Q9bAC='Conversion of tamend grassland to cropland'
      Q9cAC='Conversion of CRP land to cropland'
      Q9dAC='Conversion of CRP land to pasture/hay'
      Q9eAC='Enrollment of farmland acres to CRP'
      Q9fAC='Enrollment of land into WRP (wetland reserve) or grass easement program';
table (Q9aAC Q9bAC Q9cAC Q9dAC Q9eAC Q9fAC), Region;
run;


/* Q9 part three state and region based analysis tabulate*/

proc format;
value response
      0='No'
      1='Yes';
proc tabulate data=sasintro.dakota15;
class CaseID Q9aCorn Q9aSoy Q9aWht Q9aOth Q9bCorn Q9bSoy Q9bWht Q9bOth Q9cCorn Q9cSoy Q9cWht Q9cOth;
label CaseID='State'
      Q9aCorn='Conversion of native grass to Corn land'
      Q9aSoy='Conversion of native grass to Soybean land'
      Q9aWht='Conversion of native grass to Wheat land'
      Q9aOth='Conversion of native grass to Other use'
      Q9bCorn='Conversion of tamend grassland to Corn land'
      Q9bSoy='Conversion of tamend grassland to Soy land'
      Q9bWht='Conversion of tamend grassland to Wheat land'
      Q9bOth='Conversion of tamend grassland to Other use'
      Q9cCorn='Conversion of CRP land to Corn land'
      Q9cSoy='Conversion of CRP land to Soy land'
      Q9cWht='Conversion of CRP land to Wheat land'
      Q9cOth='Conversion of CRP land to Other use' ;
table (Q9aCorn Q9aSoy Q9aWht Q9aOth Q9bCorn Q9bSoy Q9bWht Q9bOth Q9cCorn Q9cSoy Q9cWht Q9cOth),CaseID;
format CaseID State. Q9aCorn response. Q9aSoy response. Q9aWht response. Q9aOth response.
       Q9bCorn response. Q9bSoy response. Q9bWht response. Q9bOth response.
       Q9cCorn response. Q9cSoy response. Q9cWht response. Q9cOth response.;
run;

proc format;
value response
      0='No'
      1='Yes';
proc tabulate data=sasintro.dakota15;
class Region Q9aCorn Q9aSoy Q9aWht Q9aOth Q9bCorn Q9bSoy Q9bWht Q9bOth Q9cCorn Q9cSoy Q9cWht Q9cOth;
label
      Q9aCorn='Conversion of native grass to Corn land'
      Q9aSoy='Conversion of native grass to Soybean land'
      Q9aWht='Conversion of native grass to Wheat land'
      Q9aOth='Conversion of native grass to Other use'
      Q9bCorn='Conversion of tamend grassland to Corn land'
      Q9bSoy='Conversion of tamend grassland to Soy land'
      Q9bWht='Conversion of tamend grassland to Wheat land'
      Q9bOth='Conversion of tamend grassland to Other use'
      Q9cCorn='Conversion of CRP land to Corn land'
      Q9cSoy='Conversion of CRP land to Soy land'
      Q9cWht='Conversion of CRP land to Wheat land'
      Q9cOth='Conversion of CRP land to Other use' ;
table (Q9aCorn Q9aSoy Q9aWht Q9aOth Q9bCorn Q9bSoy Q9bWht Q9bOth Q9cCorn Q9cSoy Q9cWht Q9cOth),Region;
format Q9aCorn response. Q9aSoy response. Q9aWht response. Q9aOth response.
       Q9bCorn response. Q9bSoy response. Q9bWht response. Q9bOth response.
       Q9cCorn response. Q9cSoy response. Q9cWht response. Q9cOth response.;
run;

/* Q9 part three state and region based analysis frequency*/

proc format;
value Response
      1='Yes'
      0 ='No';
run;
proc freq data=sasintro.dakota15;
label CaseID='State'
```

```
      Q9aCorn='Conversion of native grass to Corn land'
      Q9aSoy='Conversion of native grass to Soybean land'
      Q9aWht='Conversion of native grass to Wheat land'
      Q9aOth='Conversion of native grass to Other use'
      Q9bCorn='Conversion of tamend grassland to Corn land'
      Q9bSoy='Conversion of tamend grassland to Soy land'
      Q9bWht='Conversion of tamend grassland to Wheat land'
      Q9bOth='Conversion of tamend grassland to Other use'
      Q9cCorn='Conversion of CRP land to Corn land'
      Q9cSoy='Conversion of CRP land to Soy land'
      Q9cWht='Conversion of CRP land to Wheat land'
      Q9cOth='Conversion of CRP land to Other use' ;
table (Q9aCorn Q9aSoy Q9aWht Q9aOth Q9bCorn Q9bSoy Q9bWht Q9bOth Q9cCorn Q9cSoy Q9cWht Q9cOth)*CaseID/norow;
format CaseID State. Q9aCorn response. Q9aSoy response. Q9aWht response. Q9aOth response.
       Q9bCorn response. Q9bSoy response. Q9bWht response. Q9bOth response.
       Q9cCorn response. Q9cSoy response. Q9cWht response. Q9cOth response.;
run;

proc format;
value Response
      1='Yes'
      0 ='No';
run;
proc freq data=sasintro.dakota15;
label
      Q9aCorn='Conversion of native grass to Corn land'
      Q9aSoy='Conversion of native grass to Soybean land'
      Q9aWht='Conversion of native grass to Wheat land'
      Q9aOth='Conversion of native grass to Other use'
      Q9bCorn='Conversion of tamend grassland to Corn land'
      Q9bSoy='Conversion of tamend grassland to Soy land'
      Q9bWht='Conversion of tamend grassland to Wheat land'
      Q9bOth='Conversion of tamend grassland to Other use'
      Q9cCorn='Conversion of CRP land to Corn land'
      Q9cSoy='Conversion of CRP land to Soy land'
      Q9cWht='Conversion of CRP land to Wheat land'
      Q9cOth='Conversion of CRP land to Other use' ;
table (Q9aCorn Q9aSoy Q9aWht Q9aOth Q9bCorn Q9bSoy Q9bWht Q9bOth Q9cCorn Q9cSoy Q9cWht Q9cOth)*Region/norow;
format  Q9aCorn response. Q9aSoy response. Q9aWht response. Q9aOth response.
       Q9bCorn response. Q9bSoy response. Q9bWht response. Q9bOth response.
       Q9cCorn response. Q9cSoy response. Q9cWht response. Q9cOth response.;
run;


/* Q9 part three state and region based analysis frequency with chisq*/

proc format;
value Response
      1='Yes'
      0 ='No';
run;
proc freq data=sasintro.dakota15;
label CaseID='State'
      Q9aCorn='Conversion of native grass to Corn land'
      Q9aSoy='Conversion of native grass to Soybean land'
      Q9aWht='Conversion of native grass to Wheat land'
      Q9aOth='Conversion of native grass to Other use'
      Q9bCorn='Conversion of tamend grassland to Corn land'
      Q9bSoy='Conversion of tamend grassland to Soy land'
      Q9bWht='Conversion of tamend grassland to Wheat land'
      Q9bOth='Conversion of tamend grassland to Other use'
      Q9cCorn='Conversion of CRP land to Corn land'
      Q9cSoy='Conversion of CRP land to Soy land'
      Q9cWht='Conversion of CRP land to Wheat land'
      Q9cOth='Conversion of CRP land to Other use' ;
table (Q9aCorn Q9aSoy Q9aWht Q9aOth Q9bCorn Q9bSoy Q9bWht Q9bOth Q9cCorn Q9cSoy Q9cWht Q9cOth)*CaseID/chisq;
format CaseID State. Q9aCorn response. Q9aSoy response. Q9aWht response. Q9aOth response.
       Q9bCorn response. Q9bSoy response. Q9bWht response. Q9bOth response.
       Q9cCorn response. Q9cSoy response. Q9cWht response. Q9cOth response.;
run;

proc format;
value Response
      1='Yes'
      0 ='No';
run;
```

```
proc freq data=sasintro.dakota15;
label
      Q9aCorn='Conversion of native grass to Corn land'
      Q9aSoy='Conversion of native grass to Soybean land'
      Q9aWht='Conversion of native grass to Wheat land'
      Q9aOth='Conversion of native grass to Other use'
      Q9bCorn='Conversion of tamend grassland to Corn land'
      Q9bSoy='Conversion of tamend grassland to Soy land'
      Q9bWht='Conversion of tamend grassland to Wheat land'
      Q9bOth='Conversion of tamend grassland to Other use'
      Q9cCorn='Conversion of CRP land to Corn land'
      Q9cSoy='Conversion of CRP land to Soy land'
      Q9cWht='Conversion of CRP land to Wheat land'
      Q9cOth='Conversion of CRP land to Other use' ;
table (Q9aCorn Q9aSoy Q9aWht Q9aOth Q9bCorn Q9bSoy Q9bWht Q9bOth Q9cCorn Q9cSoy Q9cWht Q9cOth)*Region/chisq;
format  Q9aCorn response. Q9aSoy response. Q9aWht response. Q9aOth response.
       Q9bCorn response. Q9bSoy response. Q9bWht response. Q9bOth response.
       Q9cCorn response. Q9cSoy response. Q9cWht response. Q9cOth response.;
run;


/* Q9 part three state and region based analysis with means*/

proc means data=sasintro.dakota15 n nmiss sum min max mean std maxdec=1;
class CaseID State;
var Q9aCorn Q9aSoy Q9aWht Q9aOth Q9bCorn Q9bSoy Q9bWht Q9bOth Q9cCorn Q9cSoy Q9cWht Q9cOth ;
label CaseID='State'
      Q9aCorn='Conversion of native grass to Corn land'
      Q9aSoy='Conversion of native grass to Soybean land'
      Q9aWht='Conversion of native grass to Wheat land'
      Q9aOth='Conversion of native grass to Other use'
      Q9bCorn='Conversion of tamend grassland to Corn land'
      Q9bSoy='Conversion of tamend grassland to Soy land'
      Q9bWht='Conversion of tamend grassland to Wheat land'
      Q9bOth='Conversion of tamend grassland to Other use'
      Q9cCorn='Conversion of CRP land to Corn land'
      Q9cSoy='Conversion of CRP land to Soy land'
      Q9cWht='Conversion of CRP land to Wheat land'
      Q9cOth='Conversion of CRP land to Other use' ;
format CaseID State. ;
run;

proc means data=sasintro.dakota15 n nmiss sum min max mean std maxdec=1;
class Region;
var Q9aCorn Q9aSoy Q9aWht Q9aOth Q9bCorn Q9bSoy Q9bWht Q9bOth Q9cCorn Q9cSoy Q9cWht Q9cOth ;
label
      Q9aCorn='Conversion of native grass to Corn land'
      Q9aSoy='Conversion of native grass to Soybean land'
      Q9aWht='Conversion of native grass to Wheat land'
      Q9aOth='Conversion of native grass to Other use'
      Q9bCorn='Conversion of tamend grassland to Corn land'
      Q9bSoy='Conversion of tamend grassland to Soy land'
      Q9bWht='Conversion of tamend grassland to Wheat land'
      Q9bOth='Conversion of tamend grassland to Other use'
      Q9cCorn='Conversion of CRP land to Corn land'
      Q9cSoy='Conversion of CRP land to Soy land'
      Q9cWht='Conversion of CRP land to Wheat land'
      Q9cOth='Conversion of CRP land to Other use' ;
run;


/* means by selected farm operator Q9 part one *19, 20,21, 22, 23 plus 1, 3a and 4  */

proc format;
value Age
      1='19 to 34 years'
      2='35 to 49 years'
      3='50 to 59 years'
      4='60 to 69 years'
      5='70 years and over';

value Gender
      1='Male'
      2='Female';

value Education
```

```
      1='Less than high school'
      2='High school'
      3='Some college/technical school'
      4='4-year college degree'
      5='Advanced degree (Masters, etc.)';

value Occupation
      1='Farming or Ranching'
      2='Employment in off-farm job'
      3='Own/operate a non-farm business'
      4='Retired';

value Sales

      12='Less than $99,999'
      3='From $100,000 up to $249,999'
      4='From $250,000 up to $499,999'
      5='From $500,000 up to $999,999'
      6='$1 million or more';
run;


proc means data=sasintro.dakota15clean n nmiss sum min max mean std maxdec=1;
class Q19;
var Q9aYN Q9bYN Q9cYN Q9dYN Q9eYN Q9fYN;
label Q19='Respondent Age'
      Q9aYN='Conversion of native grass to cropland'
      Q9bYN='Conversion of tamend grassland to cropland'
      Q9cYN='Conversion of CRP land to cropland'
      Q9dYN='Conversion of CRP land to pasture/hay'
      Q9eYN='Enrollment of farmland acres to CRP'
      Q9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program';
format Q19 Age.;
run;

proc means data=sasintro.dakota15clean n nmiss sum min max mean std maxdec=1;
class Q20;
var Q9aYN Q9bYN Q9cYN Q9dYN Q9eYN Q9fYN;
label Q20='Respondent Gender'
      Q9aYN='Conversion of native grass to cropland'
      Q9bYN='Conversion of tamend grassland to cropland'
      Q9cYN='Conversion of CRP land to cropland'
      Q9dYN='Conversion of CRP land to pasture/hay'
      Q9eYN='Enrollment of farmland acres to CRP'
      Q9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program';
format Q20 Gender.;
run;

proc means data=sasintro.dakota15clean n nmiss sum min max mean std maxdec=1;
class Q21;
var Q9aYN Q9bYN Q9cYN Q9dYN Q9eYN Q9fYN;
label Q21='Respondent Level of Education'
      Q9aYN='Conversion of native grass to cropland'
      Q9bYN='Conversion of tamend grassland to cropland'
      Q9cYN='Conversion of CRP land to cropland'
      Q9dYN='Conversion of CRP land to pasture/hay'
      Q9eYN='Enrollment of farmland acres to CRP'
      Q9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program';
format Q21 Education.;
run;

proc means data=sasintro.dakota15clean n nmiss sum min max mean std maxdec=1;
class Q22;
var Q9aYN Q9bYN Q9cYN Q9dYN Q9eYN Q9fYN;
label Q22='Principal Occupation'
      Q9aYN='Conversion of native grass to cropland'
      Q9bYN='Conversion of tamend grassland to cropland'
      Q9cYN='Conversion of CRP land to cropland'
      Q9dYN='Conversion of CRP land to pasture/hay'
      Q9eYN='Enrollment of farmland acres to CRP'
      Q9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program';
format Q22 Occupation.;
run;


proc means data=sasintro.dakota15clean n nmiss sum min max mean std maxdec=1;
```

```
class Q23;
var Q9aYN Q9bYN Q9cYN Q9dYN Q9eYN Q9fYN;
label Q23='Gross farm/ranch sales'
      Q9aYN='Conversion of native grass to cropland'
      Q9bYN='Conversion of tamend grassland to cropland'
      Q9cYN='Conversion of CRP land to cropland'
      Q9dYN='Conversion of CRP land to pasture/hay'
      Q9eYN='Enrollment of farmland acres to CRP'
      Q9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program';
format Q23 Sales.;
run;

proc format;
value operation
      1='Have been a farm operator'
      2='less than 10 years as a farm operator'
      3='10 to 10 years as a farm operator'
      4='20 to 29 years as a farm operator'
      5='30 years or more as a farm operator'
      ;
run;

proc means data=sasintro.dakota15clean n nmiss sum min max mean std maxdec=1;
class Q1;
var Q9aYN Q9bYN Q9cYN Q9dYN Q9eYN Q9fYN;
label Q1 ='Years as a farm opertor'
      Q23='Gross farm/ranch sales'
      Q9aYN='Conversion of native grass to cropland'
      Q9bYN='Conversion of tamend grassland to cropland'
      Q9cYN='Conversion of CRP land to cropland'
      Q9dYN='Conversion of CRP land to pasture/hay'
      Q9eYN='Enrollment of farmland acres to CRP'
      Q9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program';
format Q1 operation.;
run;

proc format;
value Farmland 10-259='1 to 259 acres'
               260-499='260 to 499 acres'
               500-999='500 to 999 acres'
               1000-1999='1000 to 1999 acres'
               2000-4999='2000 to 4999 acres'
               5000-high ='5000 acres and above';
run;

proc means data=sasintro.dakota15clean n nmiss sum min max mean std maxdec=1;
class Q3A;
var Q9aYN Q9bYN Q9cYN Q9dYN Q9eYN Q9fYN;
label Q3A ='Farmland Acres Operated in 2014'
      Q9aYN='Conversion of native grass to cropland'
      Q9bYN='Conversion of tamend grassland to cropland'
      Q9cYN='Conversion of CRP land to cropland'
      Q9dYN='Conversion of CRP land to pasture/hay'
      Q9eYN='Enrollment of farmland acres to CRP'
      Q9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program';
format Q3A Farmland.;
run;

proc format;
value Ownership
      1='Own all acres farmed'
      2='Own most acres farmed, rented the remainder'
      3='Own and rent roughly equal number of farmland acres'
      4='Rented most of the acres farmed,owned the remainder'
      5='Rented all acres farmland'
      6='Professional farm manager';
run;

proc means data=sasintro.dakota15clean n nmiss sum min max mean std maxdec=1;
class Q4;
var Q9aYN Q9bYN Q9cYN Q9dYN Q9eYN Q9fYN;
label Q4 ='Best Ownership Status in 2014'
      Q9aYN='Conversion of native grass to cropland'
      Q9bYN='Conversion of tamend grassland to cropland'
      Q9cYN='Conversion of CRP land to cropland'
      Q9dYN='Conversion of CRP land to pasture/hay'
```

```
      Q9eYN='Enrollment of farmland acres to CRP'
      Q9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program';
format Q4 Ownership.;
run;


/* cross tab chi square test, Q9 part one region and state based, 19, 20, 21, 22, 23, */
proc format;
value Age
      1='19 to 34 years'
      2='35 to 49 years'
      3='50 to 59 years'
      4='60 to 69 years'
      5='70 years and over';

value Gender
      1='Male'
      2='Female';

value Education
      1='Less than high school'
      2='High school'
      3='Some college/technical school'
      4='4-year college degree'
      5='Advanced degree (Masters, etc.)';

value Occupation
      1='Farming or Ranching'
      2='Employment in off-farm job'
      3='Own/operate a non-farm business'
      4='Retired';

value Sales

      12='Less than $99,999'
      3='From $100,000 up to $249,999'
      4='From $250,000 up to $499,999'
      5='From $500,000 up to $999,999'
      6='$1 million or more';
run;

proc format;
value Response
      1='Yes'
      2='No';
run;
proc freq data=sasintro.dakota15clean;
label Q19='Respondent Age'
      Q9aYN='Conversion of native grass to cropland'
      Q9bYN='Conversion of tamend grassland to cropland'
      Q9cYN='Conversion of CRP land to cropland'
      Q9dYN='Conversion of CRP land to pasture/hay'
      Q9eYN='Enrollment of farmland acres to CRP'
      Q9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program';
tables (Q9aYN Q9bYN Q9cYN Q9dYN Q9eYN Q9fYN)*Q19/chisq;
format Q19 Age. Q9aYN Response. Q9bYN Response. Q9cYN Response. Q9dYN Response.
Q9eYN Response. Q9fYN Response. ;
run;

proc format;
value Response
      1='Yes'
      2='No';
run;
proc freq data=sasintro.dakota15clean;
label Q20='Respondent Gender'
      Q9aYN='Conversion of native grass to cropland'
      Q9bYN='Conversion of tamend grassland to cropland'
      Q9cYN='Conversion of CRP land to cropland'
      Q9dYN='Conversion of CRP land to pasture/hay'
      Q9eYN='Enrollment of farmland acres to CRP'
      Q9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program';
tables (Q9aYN Q9bYN Q9cYN Q9dYN Q9eYN Q9fYN)*Q20/chisq;
format Q20 Gender. Q9aYN Response. Q9bYN Response. Q9cYN Response. Q9dYN Response.
Q9eYN Response. Q9fYN Response. ;
run;
```

```
proc format;
value Response
      1='Yes'
      2='No';
run;
proc freq data=sasintro.dakota15clean;
label Q21='Respondent Level of Education'
      Q9aYN='Conversion of native grass to cropland'
      Q9bYN='Conversion of tamend grassland to cropland'
      Q9cYN='Conversion of CRP land to cropland'
      Q9dYN='Conversion of CRP land to pasture/hay'
      Q9eYN='Enrollment of farmland acres to CRP'
      Q9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program';
tables (Q9aYN Q9bYN Q9cYN Q9dYN Q9eYN Q9fYN)*Q21/chisq;
format Q21 Education. Q9aYN Response. Q9bYN Response. Q9cYN Response. Q9dYN Response.
Q9eYN Response. Q9fYN Response. ;
run;

proc format;
value Response
      1='Yes'
      2='No';
run;
proc freq data=sasintro.dakota15clean;
label Q22='Principal Occupation'
      Q9aYN='Conversion of native grass to cropland'
      Q9bYN='Conversion of tamend grassland to cropland'
      Q9cYN='Conversion of CRP land to cropland'
      Q9dYN='Conversion of CRP land to pasture/hay'
      Q9eYN='Enrollment of farmland acres to CRP'
      Q9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program';
tables (Q9aYN Q9bYN Q9cYN Q9dYN Q9eYN Q9fYN)*Q22/chisq;
format Q22 Occupation. Q9aYN Response. Q9bYN Response. Q9cYN Response. Q9dYN Response.
Q9eYN Response. Q9fYN Response. ;
run;

proc format;
value Response
      1='Yes'
      2='No';
run;
proc freq data=sasintro.dakota15clean;
label Q23= 'Gross farm/ranch sales'
      Q9aYN='Conversion of native grass to cropland'
      Q9bYN='Conversion of tamend grassland to cropland'
      Q9cYN='Conversion of CRP land to cropland'
      Q9dYN='Conversion of CRP land to pasture/hay'
      Q9eYN='Enrollment of farmland acres to CRP'
      Q9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program';
tables (Q9aYN Q9bYN Q9cYN Q9dYN Q9eYN Q9fYN)*Q23/chisq;
format Q23 Sales. Q9aYN Response. Q9bYN Response. Q9cYN Response. Q9dYN Response.
Q9eYN Response. Q9fYN Response. ;
run;


proc format;
value Response
      1='Yes'
      2='No';
run;
proc format;
value operation
      1='Have been a farm operator'
      2='less than 10 years as a farm operator'
      3='10 to 10 years as a farm operator'
      4='20 to 29 years as a farm operator'
      5='30 years or more as a farm operator'
      ;
run;

proc freq data=sasintro.dakota15clean;
label Q1= 'Year As a Farm Operator'
      Q9aYN='Conversion of native grass to cropland'
      Q9bYN='Conversion of tamend grassland to cropland'
      Q9cYN='Conversion of CRP land to cropland'
```

```
      Q9dYN='Conversion of CRP land to pasture/hay'
      Q9eYN='Enrollment of farmland acres to CRP'
      Q9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program';
tables (Q9aYN Q9bYN Q9cYN Q9dYN Q9eYN Q9fYN)*Q1/chisq;
format Q1 Operation. Q9aYN Response. Q9bYN Response. Q9cYN Response. Q9dYN Response.
Q9eYN Response. Q9fYN Response. ;
run;

proc format;
value Response
      1='Yes'
      2='No';
run;
proc format;
value Farmland 10-259='1 to 259 acres'
               260-499='260 to 499 acres'
               500-999='500 to 999 acres'
               1000-1999='1000 to 1999 acres'
               2000-4999='2000 to 4999 acres'
               5000-high ='5000 acres and above';
run;

proc freq data=sasintro.dakota15clean;
label Q3A= 'Farmland Acres Operated in 2014'
      Q9aYN='Conversion of native grass to cropland'
      Q9bYN='Conversion of tamend grassland to cropland'
      Q9cYN='Conversion of CRP land to cropland'
      Q9dYN='Conversion of CRP land to pasture/hay'
      Q9eYN='Enrollment of farmland acres to CRP'
      Q9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program';
tables (Q9aYN Q9bYN Q9cYN Q9dYN Q9eYN Q9fYN)*Q3A/chisq;
format Q3A Farmland. Q9aYN Response. Q9bYN Response. Q9cYN Response. Q9dYN Response.
Q9eYN Response. Q9fYN Response. ;
run;

proc format;
value Ownership
      1='Own all acres farmed'
      2='Own most acres farmed, rented the remainder'
      3='Own and rent roughly equal number of farmland acres'
      4='Rented most of the acres farmed,owned the remainder'
      5='Rented all acres farmland'
      6='Professional farm manager';

run;

proc freq data=sasintro.dakota15clean;
label Q4= 'Best Ownership Status in 2014'
      Q9aYN='Conversion of native grass to cropland'
      Q9bYN='Conversion of tamend grassland to cropland'
      Q9cYN='Conversion of CRP land to cropland'
      Q9dYN='Conversion of CRP land to pasture/hay'
      Q9eYN='Enrollment of farmland acres to CRP'
      Q9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program';
tables (Q9aYN Q9bYN Q9cYN Q9dYN Q9eYN Q9fYN)*Q4/chisq;
format Q4 Ownership. Q9aYN Response. Q9bYN Response. Q9cYN Response. Q9dYN Response.
Q9eYN Response. Q9fYN Response. ;
run;


/** question 11 frequency analysis State and Region Based**/

proc format;
value Future
      1='Yes'
      2='No'
      3='Dont Know';
run;
proc freq data=sasintro.dakota15;
label CaseID='State'
      Q11a='Plan to convert native grassland to cropland in next 10 years'
      Q11b='Plan to convert tame grassland to cropland in next 10 years'
      Q11c='Plan to convert cropland to grassland in next 10 years';
tables (Q11a Q11b Q11c)*CaseID/norow;
format CaseID State. Q11a Future. Q11b Future. Q11c Future.;
run;
```

```
proc format;
value Future
      1='Yes'
      2='No'
      3='Dont Know';
run;
proc freq data=sasintro.dakota15;
label
      Q11a='Plan to convert native grassland to cropland in next 10 years'
      Q11b='Plan to convert tame grassland to cropland in next 10 years'
      Q11c='Plan to convert cropland to grassland in next 10 years';
tables (Q11a Q11b Q11c)* Region/norow;
format  Q11a Future. Q11b Future. Q11c Future.;
run;

/** question 11 frequency analysis State and Region Based with chisq **/

proc format;
value Future
      1='Yes'
      2='No'
      3='Dont Know';
run;
proc freq data=sasintro.dakota15;
label CaseID='State'
      Q11a='Plan to convert native grassland to cropland in next 10 years'
      Q11b='Plan to convert tame grassland to cropland in next 10 years'
      Q11c='Plan to convert cropland to grassland in next 10 years';
tables (Q11a Q11b Q11c)*CaseID/chisq;
format CaseID State. Q11a Future. Q11b Future. Q11c Future.;
run;

proc format;
value Future
      1='Yes'
      2='No'
      3='Dont Know';
run;
proc freq data=sasintro.dakota15;
label
      Q11a='Plan to convert native grassland to cropland in next 10 years'
      Q11b='Plan to convert tame grassland to cropland in next 10 years'
      Q11c='Plan to convert cropland to grassland in next 10 years';
tables (Q11a Q11b Q11c)* Region/chisq;
format  Q11a Future. Q11b Future. Q11c Future.;
run;

/** question 11 Tabulate  analysis State and Region Based**/


proc tabulate data=sasintro.dakota15 format=10.;
class CaseID State;
var Q11a Q11b Q11c;
label CaseID='State'
      Q11a='Plan to convert native grassland to cropland in next 10 years'
      Q11b='Plan to convert tame grassland to cropland in next 10 years'
      Q11c='Plan to convert cropland to grassland in next 10 years';
table  (CaseID),(Q11a Q11b Q11c);
format CaseID State. Q11a Future. Q11b Future. Q11c Future.;
run;


proc tabulate data=sasintro.dakota15 format=10.;
class Region;
var Q11a Q11b Q11c;
label
      Q11a='Plan to convert native grassland to cropland in next 10 years'
      Q11b='Plan to convert tame grassland to cropland in next 10 years'
      Q11c='Plan to convert cropland to grassland in next 10 years';
table  (Region),(Q11a Q11b Q11c);
format  Q11a Future. Q11b Future. Q11c Future.;
run;

/** question 11 means  analysis State and Region Based**/
```

```
proc means data=sasintro.dakota15 n nmiss sum min max mean std maxdec=0;
class CaseID State;
var Q11a Q11b Q11c;
label CaseID='State'
      Q11a='Plan to convert native grassland to cropland in next 10 years'
      Q11b='Plan to convert tame grassland to cropland in next 10 years'
      Q11c='Plan to convert cropland to grassland in next 10 years';
format CaseID State. Q11a Future. Q11b Future. Q11c Future.;
run;


proc means data=sasintro.dakota15 n nmiss sum min max mean std maxdec=0;
class Region;
var Q11a Q11b Q11c;
label
      Q11a='Plan to convert native grassland to cropland in next 10 years'
      Q11b='Plan to convert tame grassland to cropland in next 10 years'
      Q11c='Plan to convert cropland to grassland in next 10 years';
format Q11a Future. Q11b Future. Q11c Future.;
run;

/* Q11 selected farm operator/business characteristics of responses plus 1, 3a and 4*/

proc format;
value Age
      1='19 to 34 years'
      2='35 to 49 years'
      3='50 to 59 years'
      4='60 to 69 years'
      5='70 years and over'

value Gender
      1='Male'
      2='Female'

value Education
      1='Less than high school'
      2='High school'
      3='Some college/technical school'
      4='4-year college degree'
      5='Advanced degree (Masters, etc.)'

value Occupation
      1='Farming or Ranching'
      2='Employment in off-farm job'
      3='Own/operate a non-farm business'
      4='Retired'

value Sales

      12='Less than $99,999'
      3='From $100,000 up to $249,999'
      4='From $250,000 up to $499,999'
      5='From $500,000 up to $999,999'
      6='$1 million or more';

run;

proc format;
value Future
      1='Yes'
      2='No'
      3='Dont Know';
run;

proc freq data=sasintro.dakota15clean;
label Q19='Respondent Age'
      Q11a='Plan to convert native grassland to cropland in next 10 years'
      Q11b='Plan to convert tame grassland to cropland in next 10 years'
      Q11c='Plan to convert cropland to grassland in next 10 years';
tables (Q11a Q11b Q11c)*Q19/chisq;
format Q19 Age. Q11a Future. Q11b Future. Q11c Future.;
run;

proc freq data=sasintro.dakota15clean;
```

```
label Q20='Respondent Gender'
      Q11a='Plan to convert native grassland to cropland in next 10 years'
      Q11b='Plan to convert tame grassland to cropland in next 10 years'
      Q11c='Plan to convert cropland to grassland in next 10 years';
tables (Q11a Q11b Q11c)*Q20/chisq;
format Q20 Gender. Q11a Future. Q11b Future. Q11c Future.;
run;

proc freq data=sasintro.dakota15clean;
label Q21='Respondent Level of Education'
      Q11a='Plan to convert native grassland to cropland in next 10 years'
      Q11b='Plan to convert tame grassland to cropland in next 10 years'
      Q11c='Plan to convert cropland to grassland in next 10 years';
tables (Q11a Q11b Q11c)*Q21/chisq;
format Q21 Education. Q11a Future. Q11b Future. Q11c Future.;
run;

proc freq data=sasintro.dakota15clean;
label Q22='Principal Occupation'
      Q11a='Plan to convert native grassland to cropland in next 10 years'
      Q11b='Plan to convert tame grassland to cropland in next 10 years'
      Q11c='Plan to convert cropland to grassland in next 10 years';
tables (Q11a Q11b Q11c)*Q22/chisq;
format Q22 Occupation. Q11a Future. Q11b Future. Q11c Future.;
run;

proc freq data=sasintro.dakota15clean;
label Q23='Gross farm/ranch sales'
      Q11a='Plan to convert native grassland to cropland in next 10 years'
      Q11b='Plan to convert tame grassland to cropland in next 10 years'
      Q11c='Plan to convert cropland to grassland in next 10 years';
tables (Q11a Q11b Q11c)*Q23/chisq;
format Q23 Sales. Q11a Future. Q11b Future. Q11c Future.;
run;

proc format;
value operation
      1='Have been a farm operator'
      2='less than 10 years as a farm operator'
      3='10 to 10 years as a farm operator'
      4='20 to 29 years as a farm operator'
      5='30 years or more as a farm operator'
      ;
run;

proc freq data=sasintro.dakota15clean;
label Q1='Years as a farm opertor'
      Q11a='Plan to convert native grassland to cropland in next 10 years'
      Q11b='Plan to convert tame grassland to cropland in next 10 years'
      Q11c='Plan to convert cropland to grassland in next 10 years';
tables (Q11a Q11b Q11c)*Q1/chisq;
format Q1 Operation. Q11a Future. Q11b Future. Q11c Future.;
run;


proc format;
value Farmland 10-259='1 to 259 acres'
               260-499='260 to 499 acres'
               500-999='500 to 999 acres'
               1000-1999='1000 to 1999 acres'
               2000-4999='2000 to 4999 acres'
               5000-high ='5000 acres and above';
run;

proc freq data=sasintro.dakota15clean;
label Q3A='Farmland Acres Operated in 2014'
      Q11a='Plan to convert native grassland to cropland in next 10 years'
      Q11b='Plan to convert tame grassland to cropland in next 10 years'
      Q11c='Plan to convert cropland to grassland in next 10 years';
tables (Q11a Q11b Q11c)*Q3A/chisq;
format Q3A Farmland. Q11a Future. Q11b Future. Q11c Future.;
run;


proc format;
value Ownership
```

```
      1='Own all acres farmed'
      2='Own most acres farmed, rented the remainder'
      3='Own and rent roughly equal number of farmland acres'
      4='Rented most of the acres farmed,owned the remainder'
      5='Rented all acres farmland'
      6='Professional farm manager';
run;

proc freq data=sasintro.dakota15clean;
label Q4='Ownership Status in 2014'
      Q11a='Plan to convert native grassland to cropland in next 10 years'
      Q11b='Plan to convert tame grassland to cropland in next 10 years'
      Q11c='Plan to convert cropland to grassland in next 10 years';
tables (Q11a Q11b Q11c)*Q4/chisq;
format Q4 Ownership. Q11a Future. Q11b Future. Q11c Future.;
run;



/*** Chi square analysis Q10a vs Q9 **/
/** 9dYN,9eYN,9fYN versus 10a1**/
proc format;
value Response
      1='Yes'
      2='No';
run;

proc freq data=sasintro.dakota15;
label
      Q9dYN='Conversion of CRP land to pasture/hay'
      Q10a1='Changing of crop prices';
tables Q10a1* Q9dYN / chisq;
format Q10a1 Impact. Q9dYN Response.;
run;

proc freq data=sasintro.dakota15;
label
      Q9eYN='Enrollment of farmland acres to CRP'
      Q10a1='Changing of crop prices';
tables Q10a1*Q9eYN / chisq;
format Q10a1 Impact. Q9eYN Response.;
run;

proc freq data=sasintro.dakota15;
label
      Q9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program'
      Q10a1='Changing of crop prices';
tables Q10a1*Q9fYN / chisq;
format Q10a1 Impact. Q9fYN Response.;
run;

/** 9dYN,9eYN,9fYN versus 10a2**/
proc format;
value Response
      1='Yes'
      2='No';
run;

proc freq data=sasintro.dakota15;
label
      Q9dYN='Conversion of CRP land to pasture/hay'
      Q10a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)';
tables Q10a2* Q9dYN / chisq;
format Q10a2 Impact. Q9dYN Response.;
run;

proc freq data=sasintro.dakota15;
label
      Q9eYN='Enrollment of farmland acres to CRP'
      Q10a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)';
tables Q10a2*Q9eYN / chisq;
format Q10a2 Impact. Q9eYN Response.;
run;

proc freq data=sasintro.dakota15;
label
```

```
      Q9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program'
      Q10a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)';
tables Q10a2*Q9fYN / chisq;
format Q10a2 Impact. Q9fYN Response.;
run;

/** 9dYN,9eYN,9fYN versus 10a3**/
proc format;
value Response
      1='Yes'
      2='No';
run;

proc freq data=sasintro.dakota15;
label
      Q9dYN='Conversion of CRP land to pasture/hay'
      Q10a3='Availability of crop and revenue insurance policies';
tables Q10a3* Q9dYN / chisq;
format Q10a3 Impact. Q9dYN Response.;
run;

proc freq data=sasintro.dakota15;
label
      Q9eYN='Enrollment of farmland acres to CRP'
      Q10a3='Availability of crop and revenue insurance policies';
tables Q10a3*Q9eYN / chisq;
format Q10a3 Impact. Q9eYN Response.;
run;

proc freq data=sasintro.dakota15;
label
      Q9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program'
      Q10a3='Availability of crop and revenue insurance policies';
tables Q10a3*Q9fYN / chisq;
format Q10a3 Impact. Q9fYN Response.;
run;


/** 9dYN,9eYN,9fYN versus 10a4**/
proc format;
value Response
      1='Yes'
      2='No';
run;

proc freq data=sasintro.dakota15;
label
      Q9dYN='Conversion of CRP land to pasture/hay'
      Q10a4='Availability of drought-tolerant seed';
tables Q10a4* Q9dYN / chisq;
format Q10a4 Impact. Q9dYN Response.;
run;

proc freq data=sasintro.dakota15;
label
      Q9eYN='Enrollment of farmland acres to CRP'
      Q10a4='Availability of drought-tolerant seed';
tables Q10a4*Q9eYN / chisq;
format Q10a4 Impact. Q9eYN Response.;
run;


proc freq data=sasintro.dakota15;
label
      Q9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program'
      Q10a4='Availability of drought-tolerant seed';
tables Q10a4*Q9fYN / chisq;
format Q10a4 Impact. Q9fYN Response.;
run;

/** 9dYN,9eYN,9fYN versus 10a5**/
proc format;
value Response
      1='Yes'
      2='No';
run;
```

```
proc freq data=sasintro.dakota15;
label
      Q9dYN='Conversion of CRP land to pasture/hay'
      Q10a5='Developments in pest management practices, including pest management seed traits';
tables Q10a5* Q9dYN / chisq;
format Q10a5 Impact. Q9dYN Response.;
run;

proc freq data=sasintro.dakota15;
label
      Q9eYN='Enrollment of farmland acres to CRP'
      Q10a5='Developments in pest management practices, including pest management seed traits';
tables Q10a5*Q9eYN / chisq;
format Q10a5 Impact. Q9eYN Response.;
run;
proc freq data=sasintro.dakota15;
label
      Q9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program'
      Q10a5='Developments in pest management practices, including pest management seed traits';
tables Q10a5*Q9fYN / chisq;
format Q10a5 Impact. Q9fYN Response.;
run;

/** 9dYN,9eYN,9fYN versus 10a6**/
proc format;
value Response
      1='Yes'
      2='No';
run;

proc freq data=sasintro.dakota15;
label
      Q9dYN='Conversion of CRP land to pasture/hay'
      Q10a6='Improved crop yields (other than seed related traits)';
tables Q10a6* Q9dYN / chisq;
format Q10a6 Impact. Q9dYN Response.;
run;

proc freq data=sasintro.dakota15;
label
      Q9eYN='Enrollment of farmland acres to CRP'
      Q10a6='Improved crop yields (other than seed related traits)';
tables Q10a6*Q9eYN / chisq;
format Q10a6 Impact. Q9eYN Response.;
run;


proc freq data=sasintro.dakota15;
label
      Q9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program'
      Q10a6='Improved crop yields (other than seed related traits';
tables Q10a6*Q9fYN / chisq;
format Q10a6 Impact. Q9fYN Response.;
run;

/** 9dYN,9eYN,9fYN versus 10a7**/
proc format;
value Response
      1='Yes'
      2='No';
run;

proc freq data=sasintro.dakota15;
label
      Q9dYN='Conversion of CRP land to pasture/hay'
      Q10a7='Development of more efficient cropping equipment';
tables Q10a7* Q9dYN / chisq;
format Q10a7 Impact. Q9dYN Response.;
run;

proc freq data=sasintro.dakota15;
label
      Q9eYN='Enrollment of farmland acres to CRP'
      Q10a7='Development of more efficient cropping equipment';
tables Q10a7*Q9eYN / chisq;
```

```
format Q10a7 Impact. Q9eYN Response.;
run;


proc freq data=sasintro.dakota15;
label
      Q9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program'
      Q10a7='Development of more efficient cropping equipment';
tables Q10a7*Q9fYN / chisq;
format Q10a7 Impact. Q9fYN Response.;
run;



/** 9dYN,9eYN,9fYN versus 10a8**/
proc format;
value Response
      1='Yes'
      2='No';
run;

proc freq data=sasintro.dakota15;
label
      Q9dYN='Conversion of CRP land to pasture/hay'
      Q10a8='Labor availability problems';
tables Q10a8* Q9dYN / chisq;
format Q10a8 Impact. Q9dYN Response.;
run;

proc freq data=sasintro.dakota15;
label
      Q9eYN='Enrollment of farmland acres to CRP'
      Q10a8='Labor availability problems';
tables Q10a8*Q9eYN / chisq;
format Q10a8 Impact. Q9eYN Response.;
run;

proc freq data=sasintro.dakota15;
label
      Q9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program'
      Q10a8='Labor availability problems';
tables Q10a8*Q9fYN / chisq;
format Q10a8 Impact. Q9fYN Response.;
run;


/** 9aYN,9bYN,9cYN versus 10a9**/
proc format;
value Response
      1='Yes'
      2='No';
run;

proc freq data=sasintro.dakota15;
label
      Q9dYN='Conversion of CRP land to pasture/hay'
      Q10a9='Improving wildlife habitat';
tables Q10a9* Q9dYN / chisq;
format Q10a9 Impact. Q9dYN Response.;
run;

proc freq data=sasintro.dakota15;
label
      Q9eYN='Enrollment of farmland acres to CRP'
      Q10a9='Improving wildlife habitat';
tables Q10a9*Q9eYN / chisq;
format Q10a9 Impact. Q9eYN Response.;
run;

proc freq data=sasintro.dakota15;
label
      Q9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program'
      Q10a9='Improving wildlife habitat';
tables Q10a9*Q9fYN / chisq;
format Q10a9 Impact. Q9fYN Response.;
run;
```

```
/** 9aYN,9bYN,9cYN versus 10a10**/
proc format;
value Response
      1='Yes'
      2='No';
run;

proc freq data=sasintro.dakota15;
label
      Q9dYN='Conversion of CRP land to pasture/hay'
      Q10a10='Changing weather /climate patterns';
tables Q10a10* Q9dYN / chisq;
format Q10a10 Impact. Q9dYN Response.;
run;

proc freq data=sasintro.dakota15;
label
      Q9eYN='Enrollment of farmland acres into CRP'
      Q10a10='Changing weather /climate patterns';
tables Q10a10*Q9eYN / chisq;
format Q10a10 Impact. Q9eYN Response.;
run;

proc freq data=sasintro.dakota15;
label
      Q9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program'
      Q10a10='Changing weather /climate patterns';
tables Q10a10*Q9fYN / chisq;
format Q10a10 Impact. Q9fYN Response.;
run;

/**logistic regression**/
data sasintro.dakota15reg;
     set sasintro.dakota15clean;
 if  (Q9aYN=1) then NQ9aYN=0;
 if  (Q9aYN=2)  then NQ9aYN=1;

 if  (Q9bYN=1) then NQ9bYN=0;
 if  (Q9bYN=2)  then NQ9bYN=1;

 if  (Q9cYN=1) then NQ9cYN=0;
 if  (Q9cYN=2)  then NQ9cYN=1;

 if  (Q9dYN=1) then NQ9dYN=0;
 if  (Q9dYN=2)  then NQ9dYN=1;

 if  (Q9eYN=1) then NQ9eYN=0;
 if  (Q9eYN=2)  then NQ9eYN=1;

 if  (Q9fYN=1) then NQ9fYN=0;
 if  (Q9fYN=2)  then NQ9fYN=1;
 run;
proc print data=sasintro.dakota15reg;
run;


proc format;
value Age
      1='19 to 34 years'
      2='35 to 49 years'
      3='50 to 59 years'
      4='60 to 69 years'
      5='70 years and over';

value Gender
      1='Male'
      2='Female';

value Education
      1='Less than high school'
      2='High school'
      3='Some college/technical school'
      4='4-year college degree'
      5='Advanced degree (Masters, etc.)';
```

```
value Occupation
      1='Farming or Ranching'
      2='Employment in off-farm job'
      3='Own/operate a non-farm business'
      4='Retired';

value Sales

      12='Less than $99,999'
      3='From $100,000 up to $249,999'
      4='From $250,000 up to $499,999'
      5='From $500,000 up to $999,999'
      6='$1 million or more';
run;

proc format;
value operation
      1='Have been a farm operator'
      2='less than 10 years as a farm operator'
      3='10 to 10 years as a farm operator'
      4='20 to 29 years as a farm operator'
      5='30 years or more as a farm operator'
      ;
run;


proc format;
value Farmland 10-259='1 to 259 acres'
               260-499='260 to 499 acres'
               500-999='500 to 999 acres'
               1000-1999='1000 to 1999 acres'
               2000-4999='2000 to 4999 acres'
               5000-high ='5000 acres and above';
run;

proc format;
value Ownership
      1='Own all acres farmed'
      2='Own most acres farmed, rented the remainder'
      3='Own and rent roughly equal number of farmland acres'
      4='Rented most of the acres farmed,owned the remainder'
      5='Rented all acres farmland'
      6='Professional farm manager';
run;


proc format;
value Regroup
      0='Yes'
      1='No';
run;
proc logistic data=sasintro.dakota15reg;
label CaseID='State'
      Q19='Respondent Age'
      Q20='Respondent Gender'
      Q21='Respondent Level of Education'
      Q22='Principal Ocupation'
      Q23='Gross farm/ranch sales'
      Q1=' Years as a farm operator'
      Q3A='Farmland acres operated in 2014'
      Q4='Ownership Status in 2014'
      NQ9aYN='Conversion of native grass to cropland';
class NQ9aYN  CaseID / param=ref;
model NQ9aYN = Q19 Q20 Q21 Q22 Q23 Q1 Q3A Q4 CaseID /rsquare;
format Q19 Age. Q20 Gender. Q21 Education. Q22 Occupation. Q23 Sales. Q1 Operation.
       Q3A Farmland. Q4 Ownership. NQ9aYN Regroup. CaseID State.;
run;


proc format;
value Regroup
      0='Yes'
      1='No';
run;
proc logistic data=sasintro.dakota15reg;
label CaseID='State'
```

```
      Q19='Respondent Age'
      Q20='Respondent Gender'
      Q21='Respondent Level of Education'
      Q22='Principal Ocupation'
      Q23='Gross farm/ranch sales'
      Q1=' Years as a farm operator'
      Q3A='Farmland acres operated in 2014'
      Q4='Ownership Status in 2014'
      NQ9bYN='Conversion of tame grassland to cropland';
class NQ9bYN  CaseID / param=ref;
model NQ9bYN = Q19 Q20 Q21 Q22 Q23 Q1 Q3A Q4 CaseID /rsquare;
format Q19 Age. Q20 Gender. Q21 Education. Q22 Occupation. Q23 Sales. Q1 Operation.
       Q3A Farmland. Q4 Ownership. NQ9bYN Regroup. CaseID State.;
run;

proc format;
value Regroup
      0='Yes'
      1='No';
run;
proc logistic data=sasintro.dakota15reg;
label CaseID='State'
      Q19='Respondent Age'
      Q20='Respondent Gender'
      Q21='Respondent Level of Education'
      Q22='Principal Ocupation'
      Q23='Gross farm/ranch sales'
      Q1=' Years as a farm operator'
      Q3A='Farmland acres operated in 2014'
      Q4='Ownership Status in 2014'
      NQ9cYN='Conversion of CRP land to cropland';
class NQ9cYN  CaseID / param=ref;
model NQ9cYN = Q19 Q20 Q21 Q22 Q23 Q1 Q3A Q4 CaseID /rsquare;
format Q19 Age. Q20 Gender. Q21 Education. Q22 Occupation. Q23 Sales. Q1 Operation.
       Q3A Farmland. Q4 Ownership. NQ9cYN Regroup. CaseID State.;
run;

proc format;
value Regroup
      0='Yes'
      1='No';
run;
proc logistic data=sasintro.dakota15reg;
label CaseID='State'
      Q19='Respondent Age'
      Q20='Respondent Gender'
      Q21='Respondent Level of Education'
      Q22='Principal Ocupation'
      Q23='Gross farm/ranch sales'
      Q1=' Years as a farm operator'
      Q3A='Farmland acres operated in 2014'
      Q4='Ownership Status in 2014'
      NQ9dYN='Conversion of CRP land to pasture/hay';
class NQ9dYN  CaseID / param=ref;
model NQ9dYN = Q19 Q20 Q21 Q22 Q23 Q1 Q3A Q4 CaseID /rsquare;
format Q19 Age. Q20 Gender. Q21 Education. Q22 Occupation. Q23 Sales. Q1 Operation.
       Q3A Farmland. Q4 Ownership. NQ9dYN Regroup. CaseID State.;
run;

proc format;
value Regroup
      0='Yes'
      1='No';
run;
proc logistic data=sasintro.dakota15reg;
label CaseID='State'
      Q19='Respondent Age'
      Q20='Respondent Gender'
      Q21='Respondent Level of Education'
      Q22='Principal Ocupation'
      Q23='Gross farm/ranch sales'
      Q1=' Years as a farm operator'
      Q3A='Farmland acres operated in 2014'
      Q4='Ownership Status in 2014'
      NQ9eYN='Enrollment of farmland acres into CRP';
class NQ9eYN  CaseID / param=ref;
```

```
model NQ9eYN = Q19 Q20 Q21 Q22 Q23 Q1 Q3A Q4 CaseID /rsquare;
format Q19 Age. Q20 Gender. Q21 Education. Q22 Occupation. Q23 Sales. Q1 Operation.
       Q3A Farmland. Q4 Ownership. NQ9eYN Regroup. CaseID State.;
run;

proc format;
value Regroup
      0='Yes'
      1='No';
run;
proc logistic data=sasintro.dakota15reg;
label CaseID='State'
      Q19='Respondent Age'
      Q20='Respondent Gender'
      Q21='Respondent Level of Education'
      Q22='Principal Ocupation'
      Q23='Gross farm/ranch sales'
      Q1=' Years as a farm operator'
      Q3A='Farmland acres operated in 2014'
      Q4='Ownership Status in 2014'
      NQ9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program';
class NQ9fYN  CaseID / param=ref;
model NQ9fYN = Q19 Q20 Q21 Q22 Q23 Q1 Q3A Q4 CaseID /rsquare;
format Q19 Age. Q20 Gender. Q21 Education. Q22 Occupation. Q23 Sales. Q1 Operation.
       Q3A Farmland. Q4 Ownership. NQ9fYN Regroup. CaseID State.;
run;


/*Region based Regression*/

proc format;
value Age
      1='19 to 34 years'
      2='35 to 49 years'
      3='50 to 59 years'
      4='60 to 69 years'
      5='70 years and over';

value Gender
      1='Male'
      2='Female';

value Education
      1='Less than high school'
      2='High school'
      3='Some college/technical school'
      4='4-year college degree'
      5='Advanced degree (Masters, etc.)';

value Occupation
      1='Farming or Ranching'
      2='Employment in off-farm job'
      3='Own/operate a non-farm business'
      4='Retired';

value Sales

      12='Less than $99,999'
      3='From $100,000 up to $249,999'
      4='From $250,000 up to $499,999'
      5='From $500,000 up to $999,999'
      6='$1 million or more';
run;

proc format;
value operation
      1='Have been a farm operator'
      2='less than 10 years as a farm operator'
      3='10 to 10 years as a farm operator'
      4='20 to 29 years as a farm operator'
      5='30 years or more as a farm operator'
      ;
run;


proc format;
```

```
value Farmland 10-259='1 to 259 acres'
               260-499='260 to 499 acres'
               500-999='500 to 999 acres'
               1000-1999='1000 to 1999 acres'
               2000-4999='2000 to 4999 acres'
               5000-high ='5000 acres and above';
run;

proc format;
value Ownership
      1='Own all acres farmed'
      2='Own most acres farmed, rented the remainder'
      3='Own and rent roughly equal number of farmland acres'
      4='Rented most of the acres farmed,owned the remainder'
      5='Rented all acres farmland'
      6='Professional farm manager';
run;


proc format;
value Regroup
      0='Yes'
      1='No';
run;
proc logistic data=sasintro.dakota15reg;
label
      Q19='Respondent Age'
      Q20='Respondent Gender'
      Q21='Respondent Level of Education'
      Q22='Principal Ocupation'
      Q23='Gross farm/ranch sales'
      Q1=' Years as a farm operator'
      Q3A='Farmland acres operated in 2014'
      Q4='Ownership Status in 2014'
      NQ9aYN='Conversion of native grass to cropland';
class NQ9aYN Region / param=ref;
model NQ9aYN = Q19 Q20 Q21 Q22 Q23 Q1 Q3A Q4 Region /rsquare;
format Q19 Age. Q20 Gender. Q21 Education. Q22 Occupation. Q23 Sales. Q1 Operation.
       Q3A Farmland. Q4 Ownership. NQ9aYN Regroup.;
run;


proc format;
value Regroup
      0='Yes'
      1='No';
run;
proc logistic data=sasintro.dakota15reg;
label
      Q19='Respondent Age'
      Q20='Respondent Gender'
      Q21='Respondent Level of Education'
      Q22='Principal Ocupation'
      Q23='Gross farm/ranch sales'
      Q1=' Years as a farm operator'
      Q3A='Farmland acres operated in 2014'
      Q4='Ownership Status in 2014'
      NQ9bYN='Conversion of tame grassland to cropland';
class NQ9bYN Region/ param=ref;
model NQ9bYN = Q19 Q20 Q21 Q22 Q23 Q1 Q3A Q4 Region /rsquare;
format Q19 Age. Q20 Gender. Q21 Education. Q22 Occupation. Q23 Sales. Q1 Operation.
       Q3A Farmland. Q4 Ownership. NQ9bYN Regroup.;
run;

proc format;
value Regroup
      0='Yes'
      1='No';
run;
proc logistic data=sasintro.dakota15reg;
label
      Q19='Respondent Age'
      Q20='Respondent Gender'
      Q21='Respondent Level of Education'
      Q22='Principal Ocupation'
      Q23='Gross farm/ranch sales'
```

```
      Q1=' Years as a farm operator'
      Q3A='Farmland acres operated in 2014'
      Q4='Ownership Status in 2014'
      NQ9cYN='Conversion of CRP land to cropland';
class NQ9cYN Region/ param=ref;
model NQ9cYN = Q19 Q20 Q21 Q22 Q23 Q1 Q3A Q4 Region /rsquare;
format Q19 Age. Q20 Gender. Q21 Education. Q22 Occupation. Q23 Sales. Q1 Operation.
       Q3A Farmland. Q4 Ownership. NQ9cYN Regroup.;
run;

proc format;
value Regroup
      0='Yes'
      1='No';
run;
proc logistic data=sasintro.dakota15reg;
label
      Q19='Respondent Age'
      Q20='Respondent Gender'
      Q21='Respondent Level of Education'
      Q22='Principal Ocupation'
      Q23='Gross farm/ranch sales'
      Q1='Years as a farm operator'
      Q3A='Farmland acres operated in 2014'
      Q4='Ownership Status in 2014'
      NQ9dYN='Conversion of CRP land to pasture/hay';
class NQ9dYN Region / param=ref;
model NQ9dYN = Q19 Q20 Q21 Q22 Q23 Q1 Q3A Q4 Region /rsquare;
format Q19 Age. Q20 Gender. Q21 Education. Q22 Occupation. Q23 Sales. Q1 Operation.
       Q3A Farmland. Q4 Ownership. NQ9dYN Regroup.;
run;

proc format;
value Regroup
      0='Yes'
      1='No';
run;
proc logistic data=sasintro.dakota15reg;
label
      Q19='Respondent Age'
      Q20='Respondent Gender'
      Q21='Respondent Level of Education'
      Q22='Principal Ocupation'
      Q23='Gross farm/ranch sales'
      Q1=' Years as a farm operator'
      Q3A='Farmland acres operated in 2014'
      Q4='Ownership Status in 2014'
      NQ9eYN='Enrollment of farmland acres into CRP';
class NQ9eYN Region / param=ref;
model NQ9eYN = Q19 Q20 Q21 Q22 Q23 Q1 Q3A Q4 Region /rsquare;
format Q19 Age. Q20 Gender. Q21 Education. Q22 Occupation. Q23 Sales. Q1 Operation.
       Q3A Farmland. Q4 Ownership. NQ9eYN Regroup.;
run;

proc format;
value Regroup
      0='Yes'
      1='No';
run;
proc logistic data=sasintro.dakota15reg;
label
      Q19='Respondent Age'
      Q20='Respondent Gender'
      Q21='Respondent Level of Education'
      Q22='Principal Ocupation'
      Q23='Gross farm/ranch sales'
      Q1=' Years as a farm operator'
      Q3A='Farmland acres operated in 2014'
      Q4='Ownership Status in 2014'
      NQ9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program';
class NQ9fYN  Region / param=ref;
model NQ9fYN = Q19 Q20 Q21 Q22 Q23 Q1 Q3A Q4 Region /rsquare;
format Q19 Age. Q20 Gender. Q21 Education. Q22 Occupation. Q23 Sales. Q1 Operation.
       Q3A Farmland. Q4 Ownership. NQ9fYN Regroup.;
run;
```

```
/*extra analysis start*/

proc format;
value Regroup
      0='Yes'
      1='No';
run;
proc logistic data=sasintro.dakota15reg;
label CaseID='State'
      Q19='Respondent Age'
      NQ9aYN='Conversion of native grass to cropland'
      NQ9bYN='Conversion of tamend grassland to cropland'
      NQ9cYN='Conversion of CRP land to cropland'
      NQ9dYN='Conversion of CRP land to pasture/hay'
      NQ9eYN='Enrollment of farmland acres to CRP'
      NQ9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program';
class NQ9aYN NQ9bYN NQ9cYN NQ9dYN NQ9eYN NQ9fYN CaseID / param=ref;
model Q19 = NQ9aYN NQ9bYN NQ9cYN NQ9dYN NQ9eYN NQ9fYN CaseID /rsquare;
format Q19 Age. NQ9aYN regroup. NQ9bYN regroup. NQ9cYN regroup. NQ9dYN regroup. NQ9eYN regroup. NQ9fYN regroup. CaseID
run;


proc logistic data=sasintro.dakota15reg;
label
      Q19='Respondent Age'
      NQ9aYN='Conversion of native grass to cropland'
      NQ9bYN='Conversion of tamend grassland to cropland'
      NQ9cYN='Conversion of CRP land to cropland'
      NQ9dYN='Conversion of CRP land to pasture/hay'
      NQ9eYN='Enrollment of farmland acres to CRP'
      NQ9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program';
class NQ9aYN NQ9bYN NQ9cYN NQ9dYN NQ9eYN NQ9fYN Region / param=ref;
model Q19 = NQ9aYN NQ9bYN NQ9cYN NQ9dYN NQ9eYN NQ9fYN Region /rsquare;
format Q19 Age. NQ9aYN regroup. NQ9bYN regroup. NQ9cYN regroup. NQ9dYN regroup. NQ9eYN regroup. NQ9fYN regroup.;
run;

proc logistic data=sasintro.dakota15reg;
label CaseID='State'
      Q20='Respondent Gender'
      NQ9aYN='Conversion of native grass to cropland'
      NQ9bYN='Conversion of tamend grassland to cropland'
      NQ9cYN='Conversion of CRP land to cropland'
      NQ9dYN='Conversion of CRP land to pasture/hay'
      NQ9eYN='Enrollment of farmland acres to CRP'
      NQ9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program';
class NQ9aYN NQ9bYN NQ9cYN NQ9dYN NQ9eYN NQ9fYN CaseID / param=ref;
model Q20 = NQ9aYN NQ9bYN NQ9cYN NQ9dYN NQ9eYN NQ9fYN CaseID /rsquare;
format Q20 Gender. NQ9aYN regroup. NQ9bYN regroup. NQ9cYN regroup. NQ9dYN regroup. NQ9eYN regroup. NQ9fYN regroup. Case
run;


proc logistic data=sasintro.dakota15reg;
label
      Q20='Respondent Gender'
      NQ9aYN='Conversion of native grass to cropland'
      NQ9bYN='Conversion of tamend grassland to cropland'
      NQ9cYN='Conversion of CRP land to cropland'
      NQ9dYN='Conversion of CRP land to pasture/hay'
      NQ9eYN='Enrollment of farmland acres to CRP'
      NQ9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program';
class NQ9aYN NQ9bYN NQ9cYN NQ9dYN NQ9eYN NQ9fYN Region / param=ref;
model Q20 = NQ9aYN NQ9bYN NQ9cYN NQ9dYN NQ9eYN NQ9fYN Region /rsquare;
format Q20 Gender. NQ9aYN regroup. NQ9bYN regroup. NQ9cYN regroup. NQ9dYN regroup. NQ9eYN regroup. NQ9fYN regroup.;
run;


proc logistic data=sasintro.dakota15reg;
label CaseID='State'
      Q21='Respondent Level of Education'
      NQ9aYN='Conversion of native grass to cropland'
      NQ9bYN='Conversion of tamend grassland to cropland'
      NQ9cYN='Conversion of CRP land to cropland'
      NQ9dYN='Conversion of CRP land to pasture/hay'
      NQ9eYN='Enrollment of farmland acres to CRP'
      NQ9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program';
```

```
class NQ9aYN NQ9bYN NQ9cYN NQ9dYN NQ9eYN NQ9fYN CaseID / param=ref;
model Q21 = NQ9aYN NQ9bYN NQ9cYN NQ9dYN NQ9eYN NQ9fYN CaseID /rsquare;
format Q21 Education. NQ9aYN regroup. NQ9bYN regroup. NQ9cYN regroup. NQ9dYN regroup. NQ9eYN regroup. NQ9fYN regroup. C
run;


proc logistic data=sasintro.dakota15reg;
label
      Q21='Respondent Level of Education'
      NQ9aYN='Conversion of native grass to cropland'
      NQ9bYN='Conversion of tamend grassland to cropland'
      NQ9cYN='Conversion of CRP land to cropland'
      NQ9dYN='Conversion of CRP land to pasture/hay'
      NQ9eYN='Enrollment of farmland acres to CRP'
      NQ9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program';
class NQ9aYN NQ9bYN NQ9cYN NQ9dYN NQ9eYN NQ9fYN Region / param=ref;
model Q21 = NQ9aYN NQ9bYN NQ9cYN NQ9dYN NQ9eYN NQ9fYN Region /rsquare;
format Q21 Education. NQ9aYN regroup. NQ9bYN regroup. NQ9cYN regroup. NQ9dYN regroup. NQ9eYN regroup. NQ9fYN regroup.;
run;


proc logistic data=sasintro.dakota15reg;
label CaseID='State'
      Q22='Principal Occupation'
      NQ9aYN='Conversion of native grass to cropland'
      NQ9bYN='Conversion of tamend grassland to cropland'
      NQ9cYN='Conversion of CRP land to cropland'
      NQ9dYN='Conversion of CRP land to pasture/hay'
      NQ9eYN='Enrollment of farmland acres to CRP'
      NQ9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program';
class NQ9aYN NQ9bYN NQ9cYN NQ9dYN NQ9eYN NQ9fYN CaseID / param=ref;
model Q22 = NQ9aYN NQ9bYN NQ9cYN NQ9dYN NQ9eYN NQ9fYN CaseID /rsquare;
format Q22 Occupation. NQ9aYN regroup. NQ9bYN regroup. NQ9cYN regroup. NQ9dYN regroup. NQ9eYN regroup. NQ9fYN regroup. (
run;


proc logistic data=sasintro.dakota15reg;
label
      Q22='Principal Occupation'
      NQ9aYN='Conversion of native grass to cropland'
      NQ9bYN='Conversion of tamend grassland to cropland'
      NQ9cYN='Conversion of CRP land to cropland'
      NQ9dYN='Conversion of CRP land to pasture/hay'
      NQ9eYN='Enrollment of farmland acres to CRP'
      NQ9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program';
class NQ9aYN NQ9bYN NQ9cYN NQ9dYN NQ9eYN NQ9fYN Region / param=ref;
model Q22 = NQ9aYN NQ9bYN NQ9cYN NQ9dYN NQ9eYN NQ9fYN Region /rsquare;
format Q22 Occupation. NQ9aYN regroup. NQ9bYN regroup. NQ9cYN regroup. NQ9dYN regroup. NQ9eYN regroup. NQ9fYN regroup.;
run;

proc logistic data=sasintro.dakota15reg;
label CaseID='State'
      Q23='Gross farm/ranch sales'
      NQ9aYN='Conversion of native grass to cropland'
      NQ9bYN='Conversion of tamend grassland to cropland'
      NQ9cYN='Conversion of CRP land to cropland'
      NQ9dYN='Conversion of CRP land to pasture/hay'
      NQ9eYN='Enrollment of farmland acres to CRP'
      NQ9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program';
class NQ9aYN NQ9bYN NQ9cYN NQ9dYN NQ9eYN NQ9fYN CaseID / param=ref;
model Q23 = NQ9aYN NQ9bYN NQ9cYN NQ9dYN NQ9eYN NQ9fYN CaseID /rsquare;
format Q23 Sales. NQ9aYN regroup. NQ9bYN regroup. NQ9cYN regroup. NQ9dYN regroup. NQ9eYN regroup. NQ9fYN regroup. CaseI
run;


proc logistic data=sasintro.dakota15reg;
label
      Q23='Gross farm/ranch sales'
      NQ9aYN='Conversion of native grass to cropland'
      NQ9bYN='Conversion of tamend grassland to cropland'
      NQ9cYN='Conversion of CRP land to cropland'
      NQ9dYN='Conversion of CRP land to pasture/hay'
      NQ9eYN='Enrollment of farmland acres to CRP'
      NQ9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program';
class NQ9aYN NQ9bYN NQ9cYN NQ9dYN NQ9eYN NQ9fYN Region / param=ref;
model Q23 = NQ9aYN NQ9bYN NQ9cYN NQ9dYN NQ9eYN NQ9fYN Region /rsquare;
```

```
format Q23 Sales. NQ9aYN regroup. NQ9bYN regroup. NQ9cYN regroup. NQ9dYN regroup. NQ9eYN regroup. NQ9fYN regroup.;
run;

proc logistic data=sasintro.dakota15reg;
label CaseID='State'
      Q1='Years as a farm opertor'
      NQ9aYN='Conversion of native grass to cropland'
      NQ9bYN='Conversion of tamend grassland to cropland'
      NQ9cYN='Conversion of CRP land to cropland'
      NQ9dYN='Conversion of CRP land to pasture/hay'
      NQ9eYN='Enrollment of farmland acres to CRP'
      NQ9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program';
class NQ9aYN NQ9bYN NQ9cYN NQ9dYN NQ9eYN NQ9fYN CaseID / param=ref;
model Q1 = NQ9aYN NQ9bYN NQ9cYN NQ9dYN NQ9eYN NQ9fYN CaseID /rsquare;
format Q1 Operation. NQ9aYN regroup. NQ9bYN regroup. NQ9cYN regroup. NQ9dYN regroup. NQ9eYN regroup. NQ9fYN regroup. Ca
run;


proc logistic data=sasintro.dakota15reg;
label
      Q1='Years as a farm opertor'
      NQ9aYN='Conversion of native grass to cropland'
      NQ9bYN='Conversion of tamend grassland to cropland'
      NQ9cYN='Conversion of CRP land to cropland'
      NQ9dYN='Conversion of CRP land to pasture/hay'
      NQ9eYN='Enrollment of farmland acres to CRP'
      NQ9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program';
class NQ9aYN NQ9bYN NQ9cYN NQ9dYN NQ9eYN NQ9fYN Region / param=ref;
model Q1 = NQ9aYN NQ9bYN NQ9cYN NQ9dYN NQ9eYN NQ9fYN Region /rsquare;
format Q1 Operation. NQ9aYN regroup. NQ9bYN regroup. NQ9cYN regroup. NQ9dYN regroup. NQ9eYN regroup. NQ9fYN regroup.;
run;


proc format;
value Farmland 10-259='1 to 259 acres'
               260-499='260 to 499 acres'
               500-999='500 to 999 acres'
               1000-1999='1000 to 1999 acres'
               2000-4999='2000 to 4999 acres'
               5000-high ='5000 acres and above';
run;

proc logistic data=sasintro.dakota15reg;
label CaseID='State'
      Q3a='Farmland acres operated in 2014'
      NQ9aYN='Conversion of native grass to cropland'
      NQ9bYN='Conversion of tamend grassland to cropland'
      NQ9cYN='Conversion of CRP land to cropland'
      NQ9dYN='Conversion of CRP land to pasture/hay'
      NQ9eYN='Enrollment of farmland acres to CRP'
      NQ9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program';
class NQ9aYN NQ9bYN NQ9cYN NQ9dYN NQ9eYN NQ9fYN CaseID / param=ref;
model Q3a = NQ9aYN NQ9bYN NQ9cYN NQ9dYN NQ9eYN NQ9fYN CaseID /rsquare;
format Q3a Farmland. NQ9aYN regroup. NQ9bYN regroup. NQ9cYN regroup. NQ9dYN regroup. NQ9eYN regroup. NQ9fYN regroup. Ca
run;


proc logistic data=sasintro.dakota15reg;
label
      Q3a='Farmland acres operated in 2014'
      NQ9aYN='Conversion of native grass to cropland'
      NQ9bYN='Conversion of tamend grassland to cropland'
      NQ9cYN='Conversion of CRP land to cropland'
      NQ9dYN='Conversion of CRP land to pasture/hay'
      NQ9eYN='Enrollment of farmland acres to CRP'
      NQ9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program';
class NQ9aYN NQ9bYN NQ9cYN NQ9dYN NQ9eYN NQ9fYN Region / param=ref;
model Q3a = NQ9aYN NQ9bYN NQ9cYN NQ9dYN NQ9eYN NQ9fYN Region /rsquare;
format Q3a Farmland. NQ9aYN regroup. NQ9bYN regroup. NQ9cYN regroup. NQ9dYN regroup. NQ9eYN regroup. NQ9fYN regroup.;
run;


proc format;
value Ownership
      1='Own all acres farmed'
      2='Own most acres farmed, rented the remainder'
```

```
      3='Own and rent roughly equal number of farmland acres'
      4='Rented most of the acres farmed,owned the remainder'
      5='Rented all acres farmland'
      6='Professional farm manager';
run;

proc logistic data=sasintro.dakota15reg;
label CaseID='State'
      Q4='Ownersip Status in 2014'
      NQ9aYN='Conversion of native grass to cropland'
      NQ9bYN='Conversion of tamend grassland to cropland'
      NQ9cYN='Conversion of CRP land to cropland'
      NQ9dYN='Conversion of CRP land to pasture/hay'
      NQ9eYN='Enrollment of farmland acres to CRP'
      NQ9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program';
class NQ9aYN NQ9bYN NQ9cYN NQ9dYN NQ9eYN NQ9fYN CaseID / param=ref;
model Q4 = NQ9aYN NQ9bYN NQ9cYN NQ9dYN NQ9eYN NQ9fYN CaseID /rsquare;
format Q4 Ownership. NQ9aYN regroup. NQ9bYN regroup. NQ9cYN regroup. NQ9dYN regroup. NQ9eYN regroup. NQ9fYN regroup. Ca
run;


proc logistic data=sasintro.dakota15reg;
label
      Q4='Ownersip Status in 2014'
      NQ9aYN='Conversion of native grass to cropland'
      NQ9bYN='Conversion of tamend grassland to cropland'
      NQ9cYN='Conversion of CRP land to cropland'
      NQ9dYN='Conversion of CRP land to pasture/hay'
      NQ9eYN='Enrollment of farmland acres to CRP'
      NQ9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program';
class NQ9aYN NQ9bYN NQ9cYN NQ9dYN NQ9eYN NQ9fYN Region / param=ref;
model Q4 = NQ9aYN NQ9bYN NQ9cYN NQ9dYN NQ9eYN NQ9fYN Region /rsquare;
format Q4 Ownership. NQ9aYN regroup. NQ9bYN regroup. NQ9cYN regroup. NQ9dYN regroup. NQ9eYN regroup. NQ9fYN regroup.;
run;

/*extra analysis end */

/* Q10 related regression analysis start */

data sasintro.dakota15regQ10a;
     set sasintro.dakota15clean;
 if  (Q10a1=1) then NQ10a1=0;
 if  (Q10a1=2) or (Q10a1=3) then NQ10a1=1;
 if  (Q10a1=4) or (Q10a1=5) then NQ10a1=2;

 if  (Q10a2=1) then NQ10a2=0;
 if  (Q10a2=2) or (Q10a2=3) then NQ10a2=1;
 if  (Q10a2=4) or (Q10a2=5) then NQ10a2=2;

 if  (Q10a10=1) then NQ10a10=0;
 if  (Q10a10=2) or (Q10a10=3) then NQ10a10=1;
 if  (Q10a10=4) or (Q10a10=5) then NQ10a10=2;

 if  (Q10a7=1) then NQ10a7=0;
 if  (Q10a7=2) or (Q10a7=3) then NQ10a7=1;
 if  (Q10a7=4) or (Q10a7=5) then NQ10a7=2;

 if  (Q10a6=1) then NQ10a6=0;
 if  (Q10a6=2) or (Q10a6=3) then NQ10a6=1;
 if  (Q10a6=4) or (Q10a6=5) then NQ10a6=2;

 if  (Q10a3=1) then NQ10a3=0;
 if  (Q10a3=2) or (Q10a3=3) then NQ10a3=1;
 if  (Q10a3=4) or (Q10a3=5) then NQ10a3=2;

 if  (Q10a5=1) then NQ10a5=0;
 if  (Q10a5=2) or (Q10a5=3) then NQ10a5=1;
 if  (Q10a5=4) or (Q10a5=5) then NQ10a5=2;

 if  (Q10a8=1) then NQ10a8=0;
 if  (Q10a8=2) or (Q10a8=3) then NQ10a8=1;
 if  (Q10a8=4) or (Q10a8=5) then NQ10a8=2;

 if  (Q10a9=1) then NQ10a9=0;
 if  (Q10a9=2) or (Q10a9=3) then NQ10a9=1;
 if  (Q10a9=4) or (Q10a9=5) then NQ10a9=2;
```

```
 if  (Q10a4=1) then NQ10a4=0;
 if  (Q10a4=2) or (Q10a4=3) then NQ10a4=1;
 if  (Q10a4=4) or (Q10a4=5) then NQ10a4=2;
run;
proc print data=sasintro.dakota15regQ10a;
run;

proc format;
value Reformat
      0='No Impact'
      1='Some Impact'
      2='Great Impact';
run;

proc GLM data=sasintro.dakota15regQ10a;
class NQ10a1 region;
level NQ10a1='Changing crop prices';
model NQ10a1=region;
format  NQ10a1 reformat.;
run;

proc GLM data=sasintro.dakota15regQ10a;
class NQ10a2 region;
Level Q10a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)';
model NQ10a2=region;
format  NQ10a2 reformat.;
run;

proc GLM data=sasintro.dakota15regQ10a;
class NQ10a3 region;
Level Q10a3='Availability of crop and revenue insurance policies';
model NQ10a3=region;
format  NQ10a3 reformat.;
run;

proc GLM data=sasintro.dakota15regQ10a;
class NQ10a4 region;
Level NQ10a4='Availability of drought-tolerant seed';
model NQ10a4=region;
format  NQ10a4 reformat.;
run;

proc GLM data=sasintro.dakota15regQ10a;
class NQ10a5 region;
Level NQ10a5='Developments in pest management practices, including pest management seed traits';
model NQ10a5=region;
format  NQ10a5 reformat.;
run;

proc GLM data=sasintro.dakota15regQ10a;
class NQ10a6 region;
Level NQ10a6='Improved crop yields (other than seed related traits)';
model NQ10a6=region;
format  NQ10a6 reformat.;
run;

proc GLM data=sasintro.dakota15regQ10a;
class NQ10a7 region;
Level NQ10a7='Development of more efficient cropping equipment';
model NQ10a7=region;
format  NQ10a7 reformat.;
run;

proc GLM data=sasintro.dakota15regQ10a;
class NQ10a7 region;
Level NQ10a7='Development of more efficient cropping equipment';
model NQ10a7=region;
format  NQ10a7 reformat.;
run;

proc GLM data=sasintro.dakota15regQ10a;
class NQ10a8 region;
Level NQ10a8='Labor availability problems';
model NQ10a8=region;
format  NQ10a8 reformat.;
```

```
run;

proc GLM data=sasintro.dakota15regQ10a;
class NQ10a9 region;
Level NQ10a9='Improving wildlife habitat';
model NQ10a9=region;
format  NQ10a9 reformat.;
run;

proc GLM data=sasintro.dakota15regQ10a;
class NQ10a10 region;
Level NQ10a10='Changing weather /climate patterns';
model NQ10a10=region;
format  NQ10a10 reformat.;
run;

/* Q10a related latest regression */

proc format;
value Impact
      1='No Impact'
      2='Slight Impact'
      3='Some Impact'
      4='Quite a bit of Impact'
      5='Great Impact';
run;

proc GLM data=sasintro.dakota15clean;
class Q10a1 region;
level Q10a1='Changing crop prices';
model Q10a1=region;
format  Q10a1 impact.;
run;

proc GLM data=sasintro.dakota15clean;
class Q10a2 region;
Level Q10a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)';
model Q10a2=region;
format Q10a2 impact.;
run;

proc GLM data=sasintro.dakota15clean;
class Q10a3 region;
Level Q10a3='Availability of crop and revenue insurance policies';
model Q10a3=region;
format Q10a3 impact.;
run;

proc GLM data=sasintro.dakota15clean;
class NQ10a4 region;
Level Q10a4='Availability of drought-tolerant seed';
model Q10a4=region;
format Q10a4 impact.;
run;

proc GLM data=sasintro.dakota15clean;
class Q10a5 region;
Level Q10a5='Developments in pest management practices, including pest management seed traits';
model Q10a5=region;
format Q10a5 impact.;
run;

proc GLM data=sasintro.dakota15clean;
class Q10a6 region;
Level Q10a6='Improved crop yields (other than seed related traits)';
model Q10a6=region;
format Q10a6 impact.;
run;

proc GLM data=sasintro.dakota15clean;
class Q10a7 region;
Level Q10a7='Development of more efficient cropping equipment';
model Q10a7=region;
format Q10a7 impact.;
run;
```

```
proc GLM data=sasintro.dakota15clean;
class Q10a7 region;
Level Q10a7='Development of more efficient cropping equipment';
model Q10a7=region;
format Q10a7 impact.;
run;

proc GLM data=sasintro.dakota15clean;
class Q10a8 region;
Level Q10a8='Labor availability problems';
model Q10a8=region;
format Q10a8 impact.;
run;

proc GLM data=sasintro.dakota15clean;
class Q10a9 region;
Level Q10a9='Improving wildlife habitat';
model Q10a9=region;
format Q10a9 impact.;
run;

proc GLM data=sasintro.dakota15clean;
class Q10a10 region;
Level Q10a10='Changing weather /climate patterns';
model Q10a10=region;
format Q10a10 impact.;
run;



/* Q10a related regression analysis extra not related */

/*creating region numeric*/

data sasintro.dakota15num;
     set sasintro.dakota15;
 if  Region='East North Dakota' then Region=1;
 if  Region='Central North Dakota' then Region=2;
 if  Region='North Central South Dakota' then Region=3;
 if  Region='Central South Dakota' then Region=4;
 if  Region='East Central South Dakota' then Region=5;
 if  Region='North East South Dakota' then Region=6;

 if  (Q10a1=1) then NQ10a1=0;
 if  (Q10a1=2) or (Q10a1=3) then NQ10a1=1;
 if  (Q10a1=4) or (Q10a1=5) then NQ10a1=2;

 if  (Q10a2=1) then NQ10a2=0;
 if  (Q10a2=2) or (Q10a2=3) then NQ10a2=1;
 if  (Q10a2=4) or (Q10a2=5) then NQ10a2=2;

 if  (Q10a10=1) then NQ10a10=0;
 if  (Q10a10=2) or (Q10a10=3) then NQ10a10=1;
 if  (Q10a10=4) or (Q10a10=5) then NQ10a10=2;

 if  (Q10a7=1) then NQ10a7=0;
 if  (Q10a7=2) or (Q10a7=3) then NQ10a7=1;
 if  (Q10a7=4) or (Q10a7=5) then NQ10a7=2;

 if  (Q10a6=1) then NQ10a6=0;
 if  (Q10a6=2) or (Q10a6=3) then NQ10a6=1;
 if  (Q10a6=4) or (Q10a6=5) then NQ10a6=2;

 if  (Q10a3=1) then NQ10a3=0;
 if  (Q10a3=2) or (Q10a3=3) then NQ10a3=1;
 if  (Q10a3=4) or (Q10a3=5) then NQ10a3=2;

 if  (Q10a5=1) then NQ10a5=0;
 if  (Q10a5=2) or (Q10a5=3) then NQ10a5=1;
 if  (Q10a5=4) or (Q10a5=5) then NQ10a5=2;

 if  (Q10a8=1) then NQ10a8=0;
 if  (Q10a8=2) or (Q10a8=3) then NQ10a8=1;
 if  (Q10a8=4) or (Q10a8=5) then NQ10a8=2;

 if  (Q10a9=1) then NQ10a9=0;
```

```
 if  (Q10a9=2) or (Q10a9=3) then NQ10a9=1;
 if  (Q10a9=4) or (Q10a9=5) then NQ10a9=2;

 if  (Q10a4=1) then NQ10a4=0;
 if  (Q10a4=2) or (Q10a4=3) then NQ10a4=1;
 if  (Q10a4=4) or (Q10a4=5) then NQ10a4=2;
run;

proc print data=sasintro.dakota15num;
run;

proc format;
value regroup
      0='No Impact'
      1='Some Impact'
      2='Great Impact';
run;
/*proc format;
value geografic
      1 ='East North Dakota'
      2='Central North Dakota'
      3='North Central South Dakota'
      4='Central South Dakota'
      5='East Central South Dakota'
      6='North East South Dakota';
run; */

proc logistic data=sasintro.dakota15num;
label
      Q10a1='Changing crop prices'
      Q10a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)'
      Q10a3='Availability of crop and revenue insurance policies'
      Q10a4='Availability of drought-tolerant seed'
      Q10a5='Developments in pest management practices, including pest management seed traits'
      Q10a6='Improved crop yields (other than seed related traits)'
      Q10a7='Development of more efficient cropping equipment'
      Q10a8='Labor availability problems'
      Q10a9='Improving wildlife habitat'
      Q10a10='Changing weather /climate patterns';
class NQ10a1 NQ10a2 NQ10a3 NQ10a4 NQ10a5 NQ10a6 NQ10a7 NQ10a8 NQ10a9 NQ10a10 region / param=ref;
model Region = NQ10a1 NQ10a2 NQ10a3 NQ10a4 NQ10a5 NQ10a6 NQ10a7 NQ10a8 NQ10a9 NQ10a10 /rsquare;
format  NQ10a1 regroup. NQ10a2 regroup. NQ10a3 regroup. NQ10a4 regroup. NQ10a5 regroup. NQ10a6 regroup.
       NQ10a7 regroup. NQ10a8 regroup.  NQ10a9 regroup. NQ10a10 regroup.;
run;


proc logistic data=sasintro.dakota15num;
label CaseID='State'
      Q10a1='Changing crop prices'
      Q10a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)'
      Q10a3='Availability of crop and revenue insurance policies'
      Q10a4='Availability of drought-tolerant seed'
      Q10a5='Developments in pest management practices, including pest management seed traits'
      Q10a6='Improved crop yields (other than seed related traits)'
      Q10a7='Development of more efficient cropping equipment'
      Q10a8='Labor availability problems'
      Q10a9='Improving wildlife habitat'
      Q10a10='Changing weather /climate patterns';
class NQ10a1 NQ10a2 NQ10a3 NQ10a4 NQ10a5 NQ10a6 NQ10a7 NQ10a8 NQ10a9 NQ10a10 CaseID / param=ref;
model CaseID = NQ10a1 NQ10a2 NQ10a3 NQ10a4 NQ10a5 NQ10a6 NQ10a7 NQ10a8 NQ10a9 NQ10a10 /rsquare;
format NQ10a1 regroup. NQ10a2 regroup. NQ10a3 regroup. NQ10a4 regroup. NQ10a5 regroup. NQ10a6 regroup.
       NQ10a7 regroup. NQ10a8 regroup.  NQ10a9 regroup. NQ10a10 regroup. CaseID State.;
run;



/* Are there land use changes reported by farmers during the past 10 year
in the context of farmers expanding, contracting, or remaining the same size
(in terms of acres operated) during the past 10 yeras?*/

/** question 5a**/

proc format;
value Currentacres
      1 = 'Fewer acres than 10 years ago (by over 10%)'
      2 = 'No change or a minor change'
```

```
      3 = 'More acres than 10 years ago (by over 10%)';
proc freq data=sasintro.dakota15;
label CaseID='State'
       Q5a ='Cropland acres operated';
tables Q5a*CaseID / norow nocum;
format Q5a Currentacres. CaseID State.;
run;

/** question 5b**/
proc format;
value Currentacres
      1 = 'Fewer acres than 10 years ago (by over 10%)'
      2 = 'No change or a minor change'
      3 = 'More acres than 10 years ago (by over 10%)';
proc freq data=sasintro.dakota15;
label CaseID='State'
       Q5b ='Pasture/rangeland acres operated';
tables Q5b*CaseID / norow nocum;
format Q5b Currentacres. CaseID State.;
run;


/* develop a composite variable GRASCROP to include any respondent that
made a grass/CRP conversion to cropland decison:
yes respondent answered yes or code=1 to convert native grassland to cropland */


data sasintro.dakota15reg1;
     set sasintro.dakota15clean;
 if  (Q9aYN=1) then GRASCROP=0;
 if  (Q9aYN=2) then GRASCROP=1;

 if  (Q9bYN=1) then GRASCROP=0;
 if  (Q9bYN=2) then GRASCROP=1;

 if  (Q9cYN=1) then GRASCROP=0;
 if  (Q9cYN=2) then GRASCROP=1;

 if  (Q9dYN=1) then CRPUSE=0;
 if  (Q9dYN=2) then CRPUSE=1;

 if  (Q9eYN=1) then CRPUSE=0;
 if  (Q9eYN=2) then CRPUSE=1;

 if  (Q9fYN=1) then CRPUSE=0;
 if  (Q9fYN=2) then CRPUSE=1;

run;

proc print data=sasintro.dakota15reg1;run;

/* cross tab chi square test, Q9 part one GRASCROP region and state based, 19, 20, 21, 22, 23, */
proc format;
value Age
      1='19 to 34 years'
      2='35 to 49 years'
      3='50 to 59 years'
      4='60 to 69 years'
      5='70 years and over';

value Gender
      1='Male'
      2='Female';

value Education
      1='Less than high school'
      2='High school'
      3='Some college/technical school'
      4='4-year college degree'
      5='Advanced degree (Masters, etc.)';

value Occupation
      1='Farming or Ranching'
      2='Employment in off-farm job'
      3='Own/operate a non-farm business'
      4='Retired';
```

```
value Sales

      12='Less than $99,999'
      3='From $100,000 up to $249,999'
      4='From $250,000 up to $499,999'
      5='From $500,000 up to $999,999'
      6='$1 million or more';
run;

proc format;
value Reresponse
      0='Yes'
      1='No';
run;
proc freq data=sasintro.dakota15reg1;
label Q19='Respondent Age'
      GRASCROP='grass/CRP conversion to cropland decison:';
tables GRASCROP*Q19/chisq;
format Q19 Age. GRASCROP Reresponse. ;
run;

proc format;
value Reresponse
      0='Yes'
      1='No';
run;

proc freq data=sasintro.dakota15reg1;
label Q20='Respondent Gender'
      GRASCROP='grass/CRP conversion to cropland decison:';
tables GRASScrop*Q20/chisq;
format Q20 Gender. GRASCROP Reresponse. ;
run;

proc format;
value Reresponse
      0='Yes'
      1='No';
run;

proc freq data=sasintro.dakota15reg1;
label Q21='Respondent Level of Education'
      GRASCROP='grass/CRP conversion to cropland decison:';
tables GRASCROP*Q21/chisq;
format Q21 Education.  GRASCROP Reresponse.;
run;


proc format;
value Reresponse
      0='Yes'
      1='No';
run;

proc freq data=sasintro.dakota15reg1;
label Q22='Principal Occupation'
      GRASCROP='grass/CRP conversion to cropland decison:';
tables GRASCROP*Q22/chisq;
format Q22 Occupation. GRASCROP Reresponse.;
run;

proc format;
value Reresponse
      0='Yes'
      1='No';
run;

proc freq data=sasintro.dakota15reg1;
label Q23= 'Gross farm/ranch sales'
      GRASCROP='grass/CRP conversion to cropland decison:';
tables GRASCROP*Q23/chisq;
format Q23 Sales. GRASCROP Reresponse.;
run;
```

```
proc format;
value Reresponse
      0='Yes'
      1='No';
run;

proc format;
value operation
      1='Have been a farm operator'
      2='less than 10 years as a farm operator'
      3='10 to 10 years as a farm operator'
      4='20 to 29 years as a farm operator'
      5='30 years or more as a farm operator'
      ;
run;

proc freq data=sasintro.dakota15reg1;
label Q1= 'Year As a Farm Operator'
      GRASCROP='grass/CRP conversion to cropland decison:';
tables GRASCROP*Q1/chisq;
format Q1 Operation. GRASCROP Reresponse.;
run;

proc format;
value Reresponse
      0='Yes'
      1='No';
run;

proc format;
value Farmland 10-259='10 to 259 acres'
               260-499='260 to 499 acres'
               500-999='500 to 999 acres'
               1000-1999='1000 to 1999 acres'
               2000-4999='2000 to 4999 acres'
               5000-high ='5000 acres and above';
run;

proc freq data=sasintro.dakota15reg1;
label Q3A= 'Farmland Acres Operated in 2014'
      GRASCROP='grass/CRP conversion to cropland decison:';
tables GRASCROP*Q3A/chisq;
format Q3A Farmland. GRASCROP Reresponse.;
run;

proc format;
value Ownership
      1='Own all acres farmed'
      2='Own most acres farmed, rented the remainder'
      3='Own and rent roughly equal number of farmland acres'
      4='Rented most of the acres farmed,owned the remainder'
      5='Rented all acres farmland'
      6='Professional farm manager';
run;

proc freq data=sasintro.dakota15reg1;
label Q4= 'Best Ownership Status in 2014'
      GRASCROP='grass/CRP conversion to cropland decison:';
tables GRASCROP*Q4/chisq;
format Q4 Ownership. GRASCROP Reresponse.;
run;


proc format;
value Reresponse
      0='Yes'
      1='No';
run;
proc freq data=sasintro.dakota15reg1;
label
      GRASCROP='grass/CRP conversion to cropland decison:';
table GRASCROP*State/chisq;
format  GRASCROP Reresponse.;
run;

proc format;
```

```
value Reresponse
      0='Yes'
      1='No';
run;

proc freq data=sasintro.dakota15reg1;
label GRASCROP='grass/CRP conversion to cropland decison:';
table GRASCROP*Region/chisq;
format  Q9aCorn response. GRASCROP Reresponse.;
run;

/*cross tab chi square test, Q9 part one CRPUSE
AND  region and state based, 19, 20, 21, 22, 23, */

proc format;
value Age
      1='19 to 34 years'
      2='35 to 49 years'
      3='50 to 59 years'
      4='60 to 69 years'
      5='70 years and over';

value Gender
      1='Male'
      2='Female';

value Education
      1='Less than high school'
      2='High school'
      3='Some college/technical school'
      4='4-year college degree'
      5='Advanced degree (Masters, etc.)';

value Occupation
      1='Farming or Ranching'
      2='Employment in off-farm job'
      3='Own/operate a non-farm business'
      4='Retired';

value Sales

      12='Less than $99,999'
      3='From $100,000 up to $249,999'
      4='From $250,000 up to $499,999'
      5='From $500,000 up to $999,999'
      6='$1 million or more';
run;

proc format;
value Reresponse
      0='Yes'
      1='No';
run;
proc freq data=sasintro.dakota15reg1;
label Q19='Respondent Age'
      CRPUSE='Some changes CRP during past 10 years vs no changes in CRP use';
tables CRPUSE*Q19/chisq;
format Q19 Age. CRPUSE Reresponse. ;
run;

proc format;
value Reresponse
      0='Yes'
      1='No';
run;

proc freq data=sasintro.dakota15reg1;
label Q20='Respondent Gender'
      CRPUSE='Some changes CRP during past 10 years vs no changes in CRP use';
tables CRPUSE*Q20/chisq;
format Q20 Gender. CRPUSE Reresponse. ;
run;

proc format;
value Reresponse
      0='Yes'
```

```
      1='No';
run;

proc freq data=sasintro.dakota15reg1;
label Q21='Respondent Level of Education'
      CRPUSE='Some changes CRP during past 10 years vs no changes in CRP use';
tables CRPUSE*Q21/chisq;
format Q21 Education.  CRPUSE Reresponse.;
run;


proc format;
value Reresponse
      0='Yes'
      1='No';
run;

proc freq data=sasintro.dakota15reg1;
label Q22='Principal Occupation'
      CRPUSE='Some changes CRP during past 10 years vs no changes in CRP use';
tables CRPUSE*Q22/chisq;
format Q22 Occupation. CRPUSE Reresponse.;
run;

proc format;
value Reresponse
      0='Yes'
      1='No';
run;

proc freq data=sasintro.dakota15reg1;
label Q23= 'Gross farm/ranch sales'
      CRPUSE='Some changes CRP during past 10 years vs no changes in CRP use';
tables CRPUSE*Q23/chisq;
format Q23 Sales. CRPUSE Reresponse.;
run;


proc format;
value Reresponse
      0='Yes'
      1='No';
run;

proc format;
value operation
      1='Have been a farm operator'
      2='less than 10 years as a farm operator'
      3='10 to 10 years as a farm operator'
      4='20 to 29 years as a farm operator'
      5='30 years or more as a farm operator'
      ;
run;

proc freq data=sasintro.dakota15reg1;
label Q1= 'Year As a Farm Operator'
      CRPUSE='Some changes CRP during past 10 years vs no changes in CRP use';
tables CRPUSE*Q1/chisq;
format Q1 Operation. CRPUSE Reresponse.;
run;

proc format;
value Reresponse
      0='Yes'
      1='No';
run;

proc format;
value Farmland 10-259='10 to 259 acres'
               260-499='260 to 499 acres'
               500-999='500 to 999 acres'
               1000-1999='1000 to 1999 acres'
               2000-4999='2000 to 4999 acres'
               5000-high ='5000 acres and above';
run;
```

```
proc freq data=sasintro.dakota15reg1;
label Q3A= 'Farmland Acres Operated in 2014'
      CRPUSE='Some changes CRP during past 10 years vs no changes in CRP use';
tables CRPUSE*Q3A/chisq;
format Q3A Farmland. CRPUSE Reresponse.;
run;

proc format;
value Ownership
      1='Own all acres farmed'
      2='Own most acres farmed, rented the remainder'
      3='Own and rent roughly equal number of farmland acres'
      4='Rented most of the acres farmed,owned the remainder'
      5='Rented all acres farmland'
      6='Professional farm manager';
run;

proc freq data=sasintro.dakota15reg1;
label Q4= 'Best Ownership Status in 2014'
      CRPUSE='Some changes CRP during past 10 years vs no changes in CRP use';
tables CRPUSE*Q4/chisq;
format Q4 Ownership. CRPUSE Reresponse.;
run;


proc format;
value Reresponse
      0='Yes'
      1='No';
run;
proc freq data=sasintro.dakota15reg1;
label
      CRPUSE='Some changes CRP during past 10 years vs no changes in CRP use';
table CRPUSE*State/chisq;
format CRPUSE Reresponse.;
run;

proc format;
value Reresponse
      0='Yes'
      1='No';
run;

proc freq data=sasintro.dakota15reg1;
label CRPUSE='Some changes CRP during past 10 years vs no changes in CRP use';
table CRPUSE*Region/chisq;
format  Q9aCorn response. CRPUSE Reresponse.;
run;


proc format;
value CRPLand  0 ='0 acres'
               1-9 = '1 to 9 acres'
               10-49 ='10 to 49 acres'
               50-69 ='50 to 69 acres'
               70-99 ='70 to 99 acres'
               100-139 ='100 to 139 acres'
               140-179 ='140 to 179 acres'
               180-219 ='180 to 219 acres'
               220-259 ='220 to 259 acres'
               260-499 ='260 to 499 acres'
               500-999 ='500 to 999 acres'
               1000-1999 ='1,000 to 1,999 acres'
               2000-4999 ='2,000 to 4,999 acres'
               5000-high ='5000 acres and above';
run;

proc freq data=sasintro.dakota15reg1;
label Q3C= 'CRP acres in 2014'
      CRPUSE='Some changes CRP during past 10 years vs no changes in CRP use';
tables CRPUSE*Q3C/chisq;
format Q3C CRPLand. CRPUSE Reresponse.;
run;


/* depending on your findingsrelated to (2) on farm-related issues afftecting
```

```
their own decisons, we may further investigating the farm related issues
(Q15a and 15b) that impact changes in their local area. */

/** question 15a **/
proc format;
value Areaimpact
      0='Not applicable (No change)'
      1='No Impact'
      2='Slight Impact'
      3='Some Impact'
      4='Quite a bit of Impact'
      5='Great Impact'
      9='missing';
run;
proc freq data=sasintro.dakota15reg1;
label
      Q15a1='Changing crop prices'
      Q15a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)'
      Q15a3='Availability of crop and revenue insurance policies'
      Q15a4='Availability of drought-tolerant seed'
      Q15a5='Developments in pest management practices, including pest management seed traits'
      Q15a6='Improved crop yields (other than seed related traits)'
      Q15a7='Development of more efficient cropping equipment'
      Q15a8='Labor availability problems'
      Q15a9='Improving wildlife habitat'
      Q15a10='Changing weather /climate patterns';
tables(Q15a1 Q15a2 Q15a3 Q15a4 Q15a5 Q15a6 Q15a7 Q15a8 Q15a9 Q15a10)*State/chisq;
format  Q15a1 Areaimpact. Q15a2 Areaimpact. Q15a3 Areaimpact. Q15a4 Areaimpact. Q15a5 Areaimpact.
Q15a6 Areaimpact. Q15a7 Areaimpact. Q15a8 Areaimpact. Q15a9 Areaimpact. Q15a10 Areaimpact.;
run;

proc format;
value Areaimpact
      0='Not applicable (No change)'
      1='No Impact'
      2='Slight Impact'
      3='Some Impact'
      4='Quite a bit of Impact'
      5='Great Impact'
      9='missing';
run;
proc freq data=sasintro.dakota15reg1;
label
      Q15a1='Changing crop prices'
      Q15a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)'
      Q15a3='Availability of crop and revenue insurance policies'
      Q15a4='Availability of drought-tolerant seed'
      Q15a5='Developments in pest management practices, including pest management seed traits'
      Q15a6='Improved crop yields (other than seed related traits)'
      Q15a7='Development of more efficient cropping equipment'
      Q15a8='Labor availability problems'
      Q15a9='Improving wildlife habitat'
      Q15a10='Changing weather /climate patterns';
tables(Q15a1 Q15a2 Q15a3 Q15a4 Q15a5 Q15a6 Q15a7 Q15a8 Q15a9 Q15a10)*Region/chisq;
format  Q15a1 Areaimpact. Q15a2 Areaimpact. Q15a3 Areaimpact. Q15a4 Areaimpact. Q15a5 Areaimpact.
Q15a6 Areaimpact. Q15a7 Areaimpact. Q15a8 Areaimpact. Q15a9 Areaimpact. Q15a10 Areaimpact.;
run;



*question 15b;

proc format;
value State
      1001-2182,9002='North Dakota'
      2183-4000,9001='South Dakota';
value biggestimpact
      0 = 'No applicable (No change)'
      01 = 'Changing crop prices'
      02 = 'Changing prices in input markets (seed, fertilizer, chemicals, etc.) '
      03 = 'Availability of crop and revenue insurance policies'
      04= 'Availability of drought-tolerant seed'
      05= 'Developments in pest management practices, including pest management seed traits'
      06= 'Improved crop yields (other than seed related traits) '
      07 = 'Development of more efficient cropping equipment'
      08 = 'Labor availability problems'
```

```
      09 = 'Improving wildlife habitat'
      10 = 'Changing weather /climate patterns'
      99='missing';
run;
proc freq data=sasintro.dakota15reg1;
label
       Q15b='Which one issue had the greatest impact on changes in land use in your local area?';
tables Q15b*State/Chisq;
format  Q15b biggestimpact.;
run;


proc format;
value State
      1001-2182,9002='North Dakota'
      2183-4000,9001='South Dakota';
value biggestimpact
      0 = 'No applicable (No change)'
      01 = 'Changing crop prices'
      02 = 'Changing prices in input markets (seed, fertilizer, chemicals, etc.) '
      03 = 'Availability of crop and revenue insurance policies'
      04= 'Availability of drought-tolerant seed'
      05= 'Developments in pest management practices, including pest management seed traits'
      06= 'Improved crop yields (other than seed related traits) '
      07 = 'Development of more efficient cropping equipment'
      08 = 'Labor availability problems'
      09 = 'Improving wildlife habitat'
      10 = 'Changing weather /climate patterns'
      99='missing';
run;
proc freq data=sasintro.dakota15reg1;
label
       Q15b='Which one issue had the greatest impact on changes in land use in your local area?';
tables Q15b*Region/Chisq;
format  Q15b biggestimpact.;
run;

/* 15a iteam and operators characteristcs */

proc format;
value Age
      1='19 to 34 years'
      2='35 to 49 years'
      3='50 to 59 years'
      4='60 to 69 years'
      5='70 years and over'

value Gender
      1='Male'
      2='Female'

value Education
      1='Less than high school'
      2='High school'
      3='Some college/technical school'
      4='4-year college degree'
      5='Advanced degree (Masters, etc.)'

value Occupation
      1='Farming or Ranching'
      2='Employment in off-farm job'
      3='Own/operate a non-farm business'
      4='Retired'

value Sales

      12='Less than $99,999'
      3='From $100,000 up to $249,999'
      4='From $250,000 up to $499,999'
      5='From $500,000 up to $999,999'
      6='$1 million or more';

run;

proc format;
value Areaimpact
```

```
      0='Not applicable (No change)'
      1='No Impact'
      2='Slight Impact'
      3='Some Impact'
      4='Quite a bit of Impact'
      5='Great Impact'
      9='missing';
run;

proc freq data=sasintro.dakota15reg1;
label Q19='Respondent Age'
      Q15a1='Changing crop prices'
      Q15a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)'
      Q15a3='Availability of crop and revenue insurance policies'
      Q15a4='Availability of drought-tolerant seed'
      Q15a5='Developments in pest management practices, including pest management seed traits'
      Q15a6='Improved crop yields (other than seed related traits)'
      Q15a7='Development of more efficient cropping equipment'
      Q15a8='Labor availability problems'
      Q15a9='Improving wildlife habitat'
      Q15a10='Changing weather /climate patterns';
tables (Q15a1 Q15a2 Q15a3 Q15a4 Q15a5 Q15a6 Q15a7 Q15a8 Q15a9 Q15a10)*Q19/chisq;
format Q19 Age. Q15a1 Areaimpact. Q15a2 Areaimpact. Q15a3 Areaimpact. Q15a4 Areaimpact. Q15a5 Areaimpact.
Q15a6 Areaimpact. Q15a7 Areaimpact. Q15a8 Areaimpact. Q15a9 Areaimpact. Q15a10 Areaimpact.;;
run;

proc freq data=sasintro.dakota15reg1;
label Q20='Respondent Gender'
      Q15a1='Changing crop prices'
      Q15a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)'
      Q15a3='Availability of crop and revenue insurance policies'
      Q15a4='Availability of drought-tolerant seed'
      Q15a5='Developments in pest management practices, including pest management seed traits'
      Q15a6='Improved crop yields (other than seed related traits)'
      Q15a7='Development of more efficient cropping equipment'
      Q15a8='Labor availability problems'
      Q15a9='Improving wildlife habitat'
      Q15a10='Changing weather /climate patterns';
tables (Q15a1 Q15a2 Q15a3 Q15a4 Q15a5 Q15a6 Q15a7 Q15a8 Q15a9 Q15a10)*Q20/chisq;
format Q20 Gender. Q15a1 Areaimpact. Q15a2 Areaimpact. Q15a3 Areaimpact.
       Q15a4 Areaimpact. Q15a5 Areaimpact. Q15a6 Areaimpact. Q15a7 Areaimpact.
       Q15a8 Areaimpact. Q15a9 Areaimpact. Q15a10 Areaimpact.;
run;

proc freq data=sasintro.dakota15reg1;
label Q21='Respondent Level of Education'
      Q15a1='Changing crop prices'
      Q15a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)'
      Q15a3='Availability of crop and revenue insurance policies'
      Q15a4='Availability of drought-tolerant seed'
      Q15a5='Developments in pest management practices, including pest management seed traits'
      Q15a6='Improved crop yields (other than seed related traits)'
      Q15a7='Development of more efficient cropping equipment'
      Q15a8='Labor availability problems'
      Q15a9='Improving wildlife habitat'
      Q15a10='Changing weather /climate patterns';
tables (Q15a1 Q15a2 Q15a3 Q15a4 Q15a5 Q15a6 Q15a7 Q15a8 Q15a9 Q15a10)*Q21/chisq;
format Q21 Education. Q15a1 Areaimpact. Q15a2 Areaimpact. Q15a3 Areaimpact.
       Q15a4 Areaimpact. Q15a5 Areaimpact. Q15a6 Areaimpact. Q15a7 Areaimpact.
       Q15a8 Areaimpact. Q15a9 Areaimpact. Q15a10 Areaimpact.;
run;

proc freq data=sasintro.dakota15reg1;
label Q22='Principal Occupation'
      Q15a1='Changing crop prices'
      Q15a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)'
      Q15a3='Availability of crop and revenue insurance policies'
      Q15a4='Availability of drought-tolerant seed'
      Q15a5='Developments in pest management practices, including pest management seed traits'
      Q15a6='Improved crop yields (other than seed related traits)'
      Q15a7='Development of more efficient cropping equipment'
      Q15a8='Labor availability problems'
      Q15a9='Improving wildlife habitat'
      Q15a10='Changing weather /climate patterns';
tables (Q15a1 Q15a2 Q15a3 Q15a4 Q15a5 Q15a6 Q15a7 Q15a8 Q15a9 Q15a10)*Q22/chisq;
format Q22 Occupation. Q15a1 Areaimpact. Q15a2 Areaimpact. Q15a3 Areaimpact.
```

```
       Q15a4 Areaimpact. Q15a5 Areaimpact. Q15a6 Areaimpact. Q15a7 Areaimpact.
       Q15a8 Areaimpact. Q15a9 Areaimpact. Q15a10 Areaimpact.;
run;

proc freq data=sasintro.dakota15reg1;
label Q23='Gross farm/ranch sales'
      Q15a1='Changing crop prices'
      Q15a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)'
      Q15a3='Availability of crop and revenue insurance policies'
      Q15a4='Availability of drought-tolerant seed'
      Q15a5='Developments in pest management practices, including pest management seed traits'
      Q15a6='Improved crop yields (other than seed related traits)'
      Q15a7='Development of more efficient cropping equipment'
      Q15a8='Labor availability problems'
      Q15a9='Improving wildlife habitat'
      Q15a10='Changing weather /climate patterns';
tables (Q15a1 Q15a2 Q15a3 Q15a4 Q15a5 Q15a6 Q15a7 Q15a8 Q15a9 Q15a10)*Q23/chisq;
format Q23 Sales. Q15a1 Areaimpact. Q15a2 Areaimpact. Q15a3 Areaimpact.
       Q15a4 Areaimpact. Q15a5 Areaimpact. Q15a6 Areaimpact. Q15a7 Areaimpact.
       Q15a8 Areaimpact. Q15a9 Areaimpact. Q15a10 Areaimpact.;
run;

proc format;
value operation
      1='Have been a farm operator'
      2='less than 10 years as a farm operator'
      3='10 to 10 years as a farm operator'
      4='20 to 29 years as a farm operator'
      5='30 years or more as a farm operator'
      ;
run;

proc freq data=sasintro.dakota15reg1;
label Q1='Years as a farm opertor'
      Q15a1='Changing crop prices'
      Q15a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)'
      Q15a3='Availability of crop and revenue insurance policies'
      Q15a4='Availability of drought-tolerant seed'
      Q15a5='Developments in pest management practices, including pest management seed traits'
      Q15a6='Improved crop yields (other than seed related traits)'
      Q15a7='Development of more efficient cropping equipment'
      Q15a8='Labor availability problems'
      Q15a9='Improving wildlife habitat'
      Q15a10='Changing weather /climate patterns';
tables (Q15a1 Q15a2 Q15a3 Q15a4 Q15a5 Q15a6 Q15a7 Q15a8 Q15a9 Q15a10)*Q1/chisq;
format Q1 Operation. Q15a1 Areaimpact. Q15a2 Areaimpact. Q15a3 Areaimpact.
       Q15a4 Areaimpact. Q15a5 Areaimpact. Q15a6 Areaimpact. Q15a7 Areaimpact.
       Q15a8 Areaimpact. Q15a9 Areaimpact. Q15a10 Areaimpact.;
run;

proc format;
value Farmland 10-259='1 to 259 acres'
               260-499='260 to 499 acres'
               500-999='500 to 999 acres'
               1000-1999='1000 to 1999 acres'
               2000-4999='2000 to 4999 acres'
               5000-high ='5000 acres and above';
run;

proc freq data=sasintro.dakota15reg1;
label Q3A='Farmland Acres Operated in 2014'
      Q15a1='Changing crop prices'
      Q15a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)'
      Q15a3='Availability of crop and revenue insurance policies'
      Q15a4='Availability of drought-tolerant seed'
      Q15a5='Developments in pest management practices, including pest management seed traits'
      Q15a6='Improved crop yields (other than seed related traits)'
      Q15a7='Development of more efficient cropping equipment'
      Q15a8='Labor availability problems'
      Q15a9='Improving wildlife habitat'
      Q15a10='Changing weather /climate patterns';
tables (Q15a1 Q15a2 Q15a3 Q15a4 Q15a5 Q15a6 Q15a7 Q15a8 Q15a9 Q15a10)*Q3A/chisq;
format Q3A Farmland. Q15a1 Areaimpact. Q15a2 Areaimpact. Q15a3 Areaimpact.
       Q15a4 Areaimpact. Q15a5 Areaimpact. Q15a6 Areaimpact. Q15a7 Areaimpact.
       Q15a8 Areaimpact. Q15a9 Areaimpact. Q15a10 Areaimpact.;
run;
```

```
proc format;
value Ownership
      1='Own all acres farmed'
      2='Own most acres farmed, rented the remainder'
      3='Own and rent roughly equal number of farmland acres'
      4='Rented most of the acres farmed,owned the remainder'
      5='Rented all acres farmland'
      6='Professional farm manager';
run;

proc freq data=sasintro.dakota15reg1;
label Q4='Ownership Status in 2014'
      Q15a1='Changing crop prices'
      Q15a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)'
      Q15a3='Availability of crop and revenue insurance policies'
      Q15a4='Availability of drought-tolerant seed'
      Q15a5='Developments in pest management practices, including pest management seed traits'
      Q15a6='Improved crop yields (other than seed related traits)'
      Q15a7='Development of more efficient cropping equipment'
      Q15a8='Labor availability problems'
      Q15a9='Improving wildlife habitat'
      Q15a10='Changing weather /climate patterns';
tables (Q15a1 Q15a2 Q15a3 Q15a4 Q15a5 Q15a6 Q15a7 Q15a8 Q15a9 Q15a10)*Q4/chisq;
format Q4 Ownership. Q15a1 Areaimpact. Q15a2 Areaimpact. Q15a3 Areaimpact.
       Q15a4 Areaimpact. Q15a5 Areaimpact. Q15a6 Areaimpact. Q15a7 Areaimpact.
       Q15a8 Areaimpact. Q15a9 Areaimpact. Q15a10 Areaimpact.;
run;

proc format;
value CRPLand  0 ='0 acres'
               1-9 = '1 to 9 acres'
               10-49 ='10 to 49 acres'
               50-69 ='50 to 69 acres'
               70-99 ='70 to 99 acres'
               100-139 ='100 to 139 acres'
               140-179 ='140 to 179 acres'
               180-219 ='180 to 219 acres'
               220-259 ='220 to 259 acres'
               260-499 ='260 to 499 acres'
               500-999 ='500 to 999 acres'
               1000-1999 ='1,000 to 1,999 acres'
               2000-4999 ='2,000 to 4,999 acres'
               5000-high ='5000 acres and above';
run;

proc freq data=sasintro.dakota15reg1;
label Q3C='CRP acres in 2014'
      Q15a1='Changing crop prices'
      Q15a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)'
      Q15a3='Availability of crop and revenue insurance policies'
      Q15a4='Availability of drought-tolerant seed'
      Q15a5='Developments in pest management practices, including pest management seed traits'
      Q15a6='Improved crop yields (other than seed related traits)'
      Q15a7='Development of more efficient cropping equipment'
      Q15a8='Labor availability problems'
      Q15a9='Improving wildlife habitat'
      Q15a10='Changing weather /climate patterns';
tables (Q15a1 Q15a2 Q15a3 Q15a4 Q15a5 Q15a6 Q15a7 Q15a8 Q15a9 Q15a10)*Q3c/chisq;
format Q3c CRPLand. Q15a1 Areaimpact. Q15a2 Areaimpact. Q15a3 Areaimpact.
       Q15a4 Areaimpact. Q15a5 Areaimpact. Q15a6 Areaimpact. Q15a7 Areaimpact.
       Q15a8 Areaimpact. Q15a9 Areaimpact. Q15a10 Areaimpact.;
run;

/*6 Moses did not examine anything about Question 18 on cropland Characteristics*/
```

Log: Program.sas niaz final.sas

Errors (7)

Notes (31)

```
1          OPTIONS NONOTES NOSTIMER NOSOURCE NOSYNTAXCHECK;
57
58         proc format;
59         value Age
60               1='19 to 34 years'
61               2='35 to 49 years'
62               3='50 to 59 years'
63               4='60 to 69 years'
64               5='70 years and over'
65
66         value Gender
67               1='Male'
ERROR: This range is repeated, or values overlap: 1-1.
68               2='Female'
69
70         value Education
           _____
           22
           202
ERROR 22-322: Syntax error, expecting one of the following: a quoted string, a numeric constant, a datetime constant,
              a missing value, ;, LOW, OTHER.
ERROR 202-322: The option or parameter is not recognized and will be ignored.
71               1='Less than high school'
72               2='High school'
73               3='Some college/technical school'
74               4='4-year college degree'
75               5='Advanced degree (Masters, etc.)'
76
77         value Occupation
           _____
           22
           202
ERROR 22-322: Syntax error, expecting one of the following: a quoted string, a numeric constant, a datetime constant,
              a missing value, ;, LOW, OTHER.
ERROR 202-322: The option or parameter is not recognized and will be ignored.
78               1='Farming or Ranching'
79               2='Employment in off-farm job'
80               3='Own/operate a non-farm business'
81               4='Retired'
82
83         value Sales
           _____
           22
           202
ERROR 22-322: Syntax error, expecting one of the following: a quoted string, a numeric constant, a datetime constant,
              a missing value, ;, LOW, OTHER.
ERROR 202-322: The option or parameter is not recognized and will be ignored.
84
85               12='Less than $99,999'
86               3='From $100,000 up to $249,999'
87               4='From $250,000 up to $499,999'
88               5='From $500,000 up to $999,999'
89               6='$1 million or more';
NOTE: The previous statement has been deleted.
90
91         run;

NOTE: PROCEDURE FORMAT used (Total process time):
      real time           0.00 seconds
      cpu time            0.01 seconds

NOTE: The SAS System stopped processing this step because of errors.
92


93         proc format;
94         value Areaimpact
95               0='Not applicable (No change)'
96               1='No Impact'
97               2='Slight Impact'
98               3='Some Impact'
99               4='Quite a bit of Impact'
100              5='Great Impact'
101              9='missing';
NOTE: Format AREAIMPACT is already on the library WORK.FORMATS.
```

```
NOTE: Format AREAIMPACT has been output.
102         run;

NOTE: PROCEDURE FORMAT used (Total process time):
      real time           0.00 seconds
      cpu time            0.00 seconds


103
104         proc freq data=sasintro.dakota15reg1;
105         label Q19='Respondent Age'
106               Q15a1='Changing crop prices'
107               Q15a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)'
108               Q15a3='Availability of crop and revenue insurance policies'
109               Q15a4='Availability of drought-tolerant seed'
110               Q15a5='Developments in pest management practices, including pest management seed traits'
111               Q15a6='Improved crop yields (other than seed related traits)'
112               Q15a7='Development of more efficient cropping equipment'
113               Q15a8='Labor availability problems'
114               Q15a9='Improving wildlife habitat'
115               Q15a10='Changing weather /climate patterns';
116         tables (Q15a1 Q15a2 Q15a3 Q15a4 Q15a5 Q15a6 Q15a7 Q15a8 Q15a9 Q15a10)*Q19/chisq;
117         format Q19 Age. Q15a1 Areaimpact. Q15a2 Areaimpact. Q15a3 Areaimpact. Q15a4 Areaimpact. Q15a5 Areaimpact.
118         Q15a6 Areaimpact. Q15a7 Areaimpact. Q15a8 Areaimpact. Q15a9 Areaimpact. Q15a10 Areaimpact.;;
119         run;

NOTE: There were 941 observations read from the data set SASINTRO.DAKOTA15REG1.
NOTE: PROCEDURE FREQ used (Total process time):
      real time           1.00 seconds
      cpu time            0.98 seconds


120
121         proc freq data=sasintro.dakota15reg1;
122         label Q20='Respondent Gender'
123               Q15a1='Changing crop prices'
124               Q15a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)'
125               Q15a3='Availability of crop and revenue insurance policies'
126               Q15a4='Availability of drought-tolerant seed'
127               Q15a5='Developments in pest management practices, including pest management seed traits'
129               Q15a7='Development of more efficient cropping equipment'
130               Q15a8='Labor availability problems'
131               Q15a9='Improving wildlife habitat'
133         tables (Q15a1 Q15a2 Q15a3 Q15a4 Q15a5 Q15a6 Q15a7 Q15a8 Q15a9 Q15a10)*Q20/chisq;
134         format Q20 Gender. Q15a1 Areaimpact. Q15a2 Areaimpact. Q15a3 Areaimpact.
135                Q15a4 Areaimpact. Q15a5 Areaimpact. Q15a6 Areaimpact. Q15a7 Areaimpact.
136                Q15a8 Areaimpact. Q15a9 Areaimpact. Q15a10 Areaimpact.;
137         run;
NOTE: There were 941 observations read from the data set SASINTRO.DAKOTA15REG1.
NOTE: PROCEDURE FREQ used (Total process time):
      real time           0.65 seconds
      cpu time            0.60 seconds


138
139         proc freq data=sasintro.dakota15reg1;
140         label Q21='Respondent Level of Education'
141               Q15a1='Changing crop prices'
142               Q15a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)'
143               Q15a3='Availability of crop and revenue insurance policies'
144               Q15a4='Availability of drought-tolerant seed'
145               Q15a5='Developments in pest management practices, including pest management seed traits'
147               Q15a7='Development of more efficient cropping equipment'
148               Q15a8='Labor availability problems'
149               Q15a9='Improving wildlife habitat'
151         tables (Q15a1 Q15a2 Q15a3 Q15a4 Q15a5 Q15a6 Q15a7 Q15a8 Q15a9 Q15a10)*Q21/chisq;
152         format Q21 Education. Q15a1 Areaimpact. Q15a2 Areaimpact. Q15a3 Areaimpact.
153                Q15a4 Areaimpact. Q15a5 Areaimpact. Q15a6 Areaimpact. Q15a7 Areaimpact.
154                Q15a8 Areaimpact. Q15a9 Areaimpact. Q15a10 Areaimpact.;
155         run;
NOTE: There were 941 observations read from the data set SASINTRO.DAKOTA15REG1.
NOTE: PROCEDURE FREQ used (Total process time):
      real time           0.99 seconds
      cpu time            0.95 seconds


156
157         proc freq data=sasintro.dakota15reg1;
158         label Q22='Principal Occupation'
159               Q15a1='Changing crop prices'
160               Q15a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)'
161               Q15a3='Availability of crop and revenue insurance policies'
162               Q15a4='Availability of drought-tolerant seed'
163               Q15a5='Developments in pest management practices, including pest management seed traits'
165               Q15a7='Development of more efficient cropping equipment'
```

```
166             Q15a8='Labor availability problems'
167             Q15a9='Improving wildlife habitat'
169       tables (Q15a1 Q15a2 Q15a3 Q15a4 Q15a5 Q15a6 Q15a7 Q15a8 Q15a9 Q15a10)*Q22/chisq;
170       format Q22 Occupation. Q15a1 Areaimpact. Q15a2 Areaimpact. Q15a3 Areaimpact.
171              Q15a4 Areaimpact. Q15a5 Areaimpact. Q15a6 Areaimpact. Q15a7 Areaimpact.
172              Q15a8 Areaimpact. Q15a9 Areaimpact. Q15a10 Areaimpact.;
173       run;
NOTE: There were 941 observations read from the data set SASINTRO.DAKOTA15REG1.
NOTE: PROCEDURE FREQ used (Total process time):
      real time           0.88 seconds
      cpu time            0.85 seconds


174
175       proc freq data=sasintro.dakota15reg1;
176       label Q23='Gross farm/ranch sales'
177             Q15a1='Changing crop prices'
178             Q15a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)'
179             Q15a3='Availability of crop and revenue insurance policies'
180             Q15a4='Availability of drought-tolerant seed'
181             Q15a5='Developments in pest management practices, including pest management seed traits'
183             Q15a7='Development of more efficient cropping equipment'
184             Q15a8='Labor availability problems'
185             Q15a9='Improving wildlife habitat'
187       tables (Q15a1 Q15a2 Q15a3 Q15a4 Q15a5 Q15a6 Q15a7 Q15a8 Q15a9 Q15a10)*Q23/chisq;
188       format Q23 Sales. Q15a1 Areaimpact. Q15a2 Areaimpact. Q15a3 Areaimpact.
189              Q15a4 Areaimpact. Q15a5 Areaimpact. Q15a6 Areaimpact. Q15a7 Areaimpact.
190              Q15a8 Areaimpact. Q15a9 Areaimpact. Q15a10 Areaimpact.;
191       run;
NOTE: There were 941 observations read from the data set SASINTRO.DAKOTA15REG1.
NOTE: PROCEDURE FREQ used (Total process time):
      real time           1.01 seconds
      cpu time            0.97 seconds


192
193       proc format;
194       value operation
195             1='Have been a farm operator'
196             2='less than 10 years as a farm operator'
197             3='10 to 10 years as a farm operator'
NOTE: Format OPERATION has been output.
198             4='20 to 29 years as a farm operator'

199             5='30 years or more as a farm operator'
200             ;
201       run;

NOTE: PROCEDURE FORMAT used (Total process time):
      real time           0.00 seconds
      cpu time            0.00 seconds


202
203       proc freq data=sasintro.dakota15reg1;
204       label Q1='Years as a farm opertor'
205             Q15a1='Changing crop prices'
206             Q15a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)'
207             Q15a3='Availability of crop and revenue insurance policies'
208             Q15a4='Availability of drought-tolerant seed'
209             Q15a5='Developments in pest management practices, including pest management seed traits'
211             Q15a7='Development of more efficient cropping equipment'
212             Q15a8='Labor availability problems'
213             Q15a9='Improving wildlife habitat'
215       tables (Q15a1 Q15a2 Q15a3 Q15a4 Q15a5 Q15a6 Q15a7 Q15a8 Q15a9 Q15a10)*Q1/chisq;
216       format Q1 Operation. Q15a1 Areaimpact. Q15a2 Areaimpact. Q15a3 Areaimpact.
217              Q15a4 Areaimpact. Q15a5 Areaimpact. Q15a6 Areaimpact. Q15a7 Areaimpact.
218              Q15a8 Areaimpact. Q15a9 Areaimpact. Q15a10 Areaimpact.;
219       run;
NOTE: There were 941 observations read from the data set SASINTRO.DAKOTA15REG1.
NOTE: PROCEDURE FREQ used (Total process time):
      real time           0.92 seconds
      cpu time            0.87 seconds


220
221       proc format;
222       value Farmland 10-259='1 to 259 acres'
223                      260-499='260 to 499 acres'
224                      500-999='500 to 999 acres'
225                      1000-1999='1000 to 1999 acres'
NOTE: Format FARMLAND has been output.
226                      2000-4999='2000 to 4999 acres'

227                      5000-high ='5000 acres and above';
```

```
228        run;

NOTE: PROCEDURE FORMAT used (Total process time):
      real time           0.00 seconds
      cpu time            0.00 seconds


229
230        proc freq data=sasintro.dakota15reg1;
231        label Q3A='Farmland Acres Operated in 2014'
232              Q15a1='Changing crop prices'
233              Q15a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)'
234              Q15a3='Availability of crop and revenue insurance policies'
235              Q15a4='Availability of drought-tolerant seed'
236              Q15a5='Developments in pest management practices, including pest management seed traits'
238              Q15a7='Development of more efficient cropping equipment'
239              Q15a8='Labor availability problems'
240              Q15a9='Improving wildlife habitat'
242        tables (Q15a1 Q15a2 Q15a3 Q15a4 Q15a5 Q15a6 Q15a7 Q15a8 Q15a9 Q15a10)*Q3A/chisq;
243        format Q3A Farmland. Q15a1 Areaimpact. Q15a2 Areaimpact. Q15a3 Areaimpact.
244               Q15a4 Areaimpact. Q15a5 Areaimpact. Q15a6 Areaimpact. Q15a7 Areaimpact.
245               Q15a8 Areaimpact. Q15a9 Areaimpact. Q15a10 Areaimpact.;
246        run;
NOTE: There were 941 observations read from the data set SASINTRO.DAKOTA15REG1.
NOTE: PROCEDURE FREQ used (Total process time):
      real time           1.13 seconds
      cpu time            1.08 seconds


247
248
249        proc format;
250        value Ownership
251              1='Own all acres farmed'
252              2='Own most acres farmed, rented the remainder'
253              3='Own and rent roughly equal number of farmland acres'
NOTE: Format OWNERSHIP has been output.
254              4='Rented most of the acres farmed,owned the remainder'

255              5='Rented all acres farmland'
256              6='Professional farm manager';
257        run;

NOTE: PROCEDURE FORMAT used (Total process time):
      real time           0.00 seconds
      cpu time            0.00 seconds


258
259        proc freq data=sasintro.dakota15reg1;
260        label Q4='Ownership Status in 2014'
261              Q15a1='Changing crop prices'
262              Q15a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)'
263              Q15a3='Availability of crop and revenue insurance policies'
264              Q15a4='Availability of drought-tolerant seed'
265              Q15a5='Developments in pest management practices, including pest management seed traits'
267              Q15a7='Development of more efficient cropping equipment'
268              Q15a8='Labor availability problems'
269              Q15a9='Improving wildlife habitat'
271        tables (Q15a1 Q15a2 Q15a3 Q15a4 Q15a5 Q15a6 Q15a7 Q15a8 Q15a9 Q15a10)*Q4/chisq;
272        format Q4 Ownership. Q15a1 Areaimpact. Q15a2 Areaimpact. Q15a3 Areaimpact.
273               Q15a4 Areaimpact. Q15a5 Areaimpact. Q15a6 Areaimpact. Q15a7 Areaimpact.
274               Q15a8 Areaimpact. Q15a9 Areaimpact. Q15a10 Areaimpact.;
275        run;
NOTE: There were 941 observations read from the data set SASINTRO.DAKOTA15REG1.
NOTE: PROCEDURE FREQ used (Total process time):
      real time           1.01 seconds
      cpu time            0.96 seconds


276
277        proc format;
278        value CRPLand  0 ='0 acres'
279                       1-9 = '1 to 9 acres'
280                       10-49 ='10 to 49 acres'
281                       50-69 ='50 to 69 acres'
282                       70-99 ='70 to 99 acres'
283                       100-139 ='100 to 139 acres'
284                       140-179 ='140 to 179 acres'
285                       180-219 ='180 to 219 acres'
286                       220-259 ='220 to 259 acres'
287                       260-499 ='260 to 499 acres'
289                       1000-1999 ='1,000 to 1,999 acres'
290                       2000-4999 ='2,000 to 4,999 acres'
NOTE: Format CRPLAND has been output.
```

```
291                     5000-high ='5000 acres and above';

292       run;

NOTE: PROCEDURE FORMAT used (Total process time):
      real time           0.01 seconds
      cpu time            0.01 seconds


293
294       proc freq data=sasintro.dakota15reg1;
295       label Q3C='CRP acres in 2014'
296             Q15a1='Changing crop prices'
297             Q15a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)'
298             Q15a3='Availability of crop and revenue insurance policies'
299             Q15a4='Availability of drought-tolerant seed'
300             Q15a5='Developments in pest management practices, including pest management seed traits'
302             Q15a7='Development of more efficient cropping equipment'
303             Q15a8='Labor availability problems'
304             Q15a9='Improving wildlife habitat'
306       tables (Q15a1 Q15a2 Q15a3 Q15a4 Q15a5 Q15a6 Q15a7 Q15a8 Q15a9 Q15a10)*Q3c/chisq;
307       format Q3c CRPLand. Q15a1 Areaimpact. Q15a2 Areaimpact. Q15a3 Areaimpact.
308              Q15a4 Areaimpact. Q15a5 Areaimpact. Q15a6 Areaimpact. Q15a7 Areaimpact.
309              Q15a8 Areaimpact. Q15a9 Areaimpact. Q15a10 Areaimpact.;
310       run;
NOTE: There were 941 observations read from the data set SASINTRO.DAKOTA15REG1.
NOTE: PROCEDURE FREQ used (Total process time):
      real time           1.82 seconds
      cpu time            1.77 seconds


311
312       OPTIONS NONOTES NOSTIMER NOSOURCE NOSYNTAXCHECK;
324
```

Results: Program.sas niaz final.sas

The FREQ Procedure

Frequency
Percent
Row Pct
Col Pct

Table of Q15A1 by Q19

Q15A1(Changing crop prices)	Q19(Respondent Age) 19 to 34 years	35 to 49 years	50 to 59 years	60 to 69 years	70 years and over	Total
Not applicable (No change)	7 0.75 3.57 13.73	25 2.68 12.76 14.53	57 6.11 29.08 17.92	67 7.18 34.18 25.57	40 4.29 20.41 30.77	196 21.01
No Impact	0 0.00 0.00 0.00	1 0.11 16.67 0.58	1 0.11 16.67 0.31	3 0.32 50.00 1.15	1 0.11 16.67 0.77	6 0.64
Slight Impact	0 0.00 0.00 0.00	1 0.11 4.55 0.58	10 1.07 45.45 3.14	5 0.54 22.73 1.91	6 0.64 27.27 4.62	22 2.36
Some Impact	6 0.64 4.76 11.76	24 2.57 19.05 13.95	39 4.18 30.95 12.26	34 3.64 26.98 12.98	23 2.47 18.25 17.69	126 13.50
Quite a bit of Impact	23 2.47 7.28 45.10	63 6.75 19.94 36.63	117 12.54 37.03 36.79	79 8.47 25.00 30.15	34 3.64 10.76 26.15	316 33.87
Great Impact	15 1.61 5.91 29.41	57 6.11 22.44 33.14	90 9.65 35.43 28.30	71 7.61 27.95 27.10	21 2.25 8.27 16.15	254 27.22
missing	0 0.00 0.00 0.00	1 0.11 7.69 0.58	4 0.43 30.77 1.26	3 0.32 23.08 1.15	5 0.54 38.46 3.85	13 1.39
Total	51 5.47	172 18.44	318 34.08	262 28.08	130 13.93	933 100.00

Frequency Missing = 8

Statistics for Table of Q15A1 by Q19

Statistic	DF	Value	Prob
Chi-Square	24	48.2267	0.0024
Likelihood Ratio Chi-Square	24	49.6359	0.0016
Mantel-Haenszel Chi-Square	1	16.4155	<.0001
Phi Coefficient		0.2274	
Contingency Coefficient		0.2217	
Cramer's V		0.1137	

WARNING: 37% of the cells have expected counts less than 5. Chi-Square may not be a valid test.

Effective Sample Size = 933
Frequency Missing = 8

Frequency
Percent
Row Pct
Col Pct

Table of Q15A2 by Q19

Q15A2(Changing prices in input markets (seed, fertilizer, chemicals, etc.))	Q19(Respondent Age)					
	19 to 34 years	35 to 49 years	50 to 59 years	60 to 69 years	70 years and over	Total
Not applicable (No change)	7 0.75 3.57 13.73	25 2.68 12.76 14.53	57 6.11 29.08 17.92	67 7.18 34.18 25.57	40 4.29 20.41 30.77	196 21.01
No Impact	1 0.11 4.00 1.96	4 0.43 16.00 2.33	9 0.96 36.00 2.83	9 0.96 36.00 3.44	2 0.21 8.00 1.54	25 2.68
Slight Impact	4 0.43 5.26 7.84	14 1.50 18.42 8.14	23 2.47 30.26 7.23	26 2.79 34.21 9.92	9 0.96 11.84 6.92	76 8.15
Some Impact	14 1.50 5.05 27.45	59 6.32 21.30 34.30	92 9.86 33.21 28.93	76 8.15 27.44 29.01	36 3.86 13.00 27.69	277 29.69
Quite a bit of Impact	17 1.82 7.17 33.33	54 5.79 22.78 31.40	101 10.83 42.62 31.76	42 4.50 17.72 16.03	23 2.47 9.70 17.69	237 25.40
Great Impact	8 0.86 7.77 15.69	15 1.61 14.56 8.72	30 3.22 29.13 9.43	36 3.86 34.95 13.74	14 1.50 13.59 10.77	103 11.04
missing	0 0.00 0.00 0.00	1 0.11 5.26 0.58	6 0.64 31.58 1.89	6 0.64 31.58 2.29	6 0.64 31.58 4.62	19 2.04
Total	51 5.47	172 18.44	318 34.08	262 28.08	130 13.93	933 100.00

Frequency Missing = 8

Statistics for Table of Q15A2 by Q19

Statistic	DF	Value	Prob
Chi-Square	24	51.5959	0.0009
Likelihood Ratio Chi-Square	24	52.9052	0.0006
Mantel-Haenszel Chi-Square	1	5.9356	0.0148
Phi Coefficient		0.2352	
Contingency Coefficient		0.2289	
Cramer's V		0.1176	

Effective Sample Size = 933
Frequency Missing = 8

Frequency
Percent
Row Pct
Col Pct

Table of Q15A3 by Q19

Q15A3(Availability of crop and revenue insurance policies)	Q19(Respondent Age)					
	19 to 34 years	35 to 49 years	50 to 59 years	60 to 69 years	70 years and over	Total
Not applicable (No change)	7 0.75 3.57 13.73	25 2.68 12.76 14.53	57 6.11 29.08 17.92	67 7.18 34.18 25.57	40 4.29 20.41 30.77	196 21.01
No Impact	1 0.11 1.49 1.96	13 1.39 19.40 7.56	21 2.25 31.34 6.60	19 2.04 28.36 7.25	13 1.39 19.40 10.00	67 7.18
Slight Impact	9 0.96 7.26 17.65	29 3.11 23.39 16.86	43 4.61 34.68 13.52	33 3.54 26.61 12.60	10 1.07 8.06 7.69	124 13.29
Some Impact	19 2.04 7.42 37.25	43 4.61 16.80 25.00	97 10.40 37.89 30.50	66 7.07 25.78 25.19	31 3.32 12.11 23.85	256 27.44
Quite a bit of Impact	13 1.39 6.99 25.49	44 4.72 23.66 25.58	69 7.40 37.10 21.70	42 4.50 22.58 16.03	18 1.93 9.68 13.85	186 19.94
Great Impact	2 0.21 2.35 3.92	17 1.82 20.00 9.88	27 2.89 31.76 8.49	28 3.00 32.94 10.69	11 1.18 12.94 8.46	85 9.11
missing	0 0.00 0.00 0.00	1 0.11 5.26 0.58	4 0.43 21.05 1.26	7 0.75 36.84 2.67	7 0.75 36.84 5.38	19 2.04
Total	51 5.47	172 18.44	318 34.08	262 28.08	130 13.93	933 100.00

Frequency Missing = 8

Statistics for Table of Q15A3 by Q19

Statistic	DF	Value	Prob
Chi-Square	24	50.5421	0.0012
Likelihood Ratio Chi-Square	24	51.2424	0.0010
Mantel-Haenszel Chi-Square	1	2.8746	0.0900
Phi Coefficient		0.2327	
Contingency Coefficient		0.2267	
Cramer's V		0.1164	

Effective Sample Size = 933

Frequency Missing = 8

Frequency
Percent
Row Pct
Col Pct

Table of Q15A4 by Q19

Q15A4(Availability of drought-tolerant seed)	Q19(Respondent Age)					
	19 to 34 years	35 to 49 years	50 to 59 years	60 to 69 years	70 years and over	Total
Not applicable (No change)	7 0.75 3.57 13.73	25 2.68 12.76 14.53	57 6.11 29.08 17.92	67 7.18 34.18 25.57	40 4.29 20.41 30.77	196 21.01
No Impact	7 0.75 6.03 13.73	28 3.00 24.14 16.28	42 4.50 36.21 13.21	28 3.00 24.14 10.69	11 1.18 9.48 8.46	116 12.43
Slight Impact	11 1.18 5.64 21.57	45 4.82 23.08 26.16	75 8.04 38.46 23.58	45 4.82 23.08 17.18	19 2.04 9.74 14.62	195 20.90
Some Impact	19 2.04 7.12 37.25	46 4.93 17.23 26.74	94 10.08 35.21 29.56	73 7.82 27.34 27.86	35 3.75 13.11 26.92	267 28.62
Quite a bit of Impact	6 0.64 5.45 11.76	22 2.36 20.00 12.79	40 4.29 36.36 12.58	27 2.89 24.55 10.31	15 1.61 13.64 11.54	110 11.79
Great Impact	1 0.11 3.33 1.96	5 0.54 16.67 2.91	6 0.64 20.00 1.89	16 1.71 53.33 6.11	2 0.21 6.67 1.54	30 3.22
missing	0 0.00 0.00 0.00	1 0.11 5.26 0.58	4 0.43 21.05 1.26	6 0.64 31.58 2.29	8 0.86 42.11 6.15	19 2.04
Total	51 5.47	172 18.44	318 34.08	262 28.08	130 13.93	933 100.00

Frequency Missing = 8

Statistics for Table of Q15A4 by Q19

Statistic	DF	Value	Prob
Chi-Square	24	54.1011	0.0004
Likelihood Ratio Chi-Square	24	51.2610	0.0010
Mantel-Haenszel Chi-Square	1	0.0547	0.8151
Phi Coefficient		0.2408	
Contingency Coefficient		0.2341	
Cramer's V		0.1204	

Effective Sample Size = 933
Frequency Missing = 8

Frequency
Percent
Row Pct
Col Pct

Table of Q15A5 by Q19

Q15A5(Developments in pest management practices, including pest management seed traits)	Q19(Respondent Age)					
	19 to 34 years	35 to 49 years	50 to 59 years	60 to 69 years	70 years and over	Total
Not applicable (No change)	7 0.75 3.57 13.73	25 2.68 12.76 14.53	57 6.11 29.08 17.92	67 7.18 34.18 25.57	40 4.29 20.41 30.77	196 21.01
No Impact	3 0.32 7.50 5.88	9 0.96 22.50 5.23	15 1.61 37.50 4.72	9 0.96 22.50 3.44	4 0.43 10.00 3.08	40 4.29
Slight Impact	13 1.39 8.39 25.49	36 3.86 23.23 20.93	59 6.32 38.06 18.55	31 3.32 20.00 11.83	16 1.71 10.32 12.31	155 16.61
Some Impact	19 2.04 6.17 37.25	62 6.65 20.13 36.05	116 12.43 37.66 36.48	77 8.25 25.00 29.39	34 3.64 11.04 26.15	308 33.01
Quite a bit of Impact	9 0.96 5.03 17.65	35 3.75 19.55 20.35	59 6.32 32.96 18.55	52 5.57 29.05 19.85	24 2.57 13.41 18.46	179 19.19
Great Impact	0 0.00 0.00 0.00	4 0.43 11.43 2.33	8 0.86 22.86 2.52	20 2.14 57.14 7.63	3 0.32 8.57 2.31	35 3.75
missing	0 0.00 0.00 0.00	1 0.11 5.00 0.58	4 0.43 20.00 1.26	6 0.64 30.00 2.29	9 0.96 45.00 6.92	20 2.14
Total	51 5.47	172 18.44	318 34.08	262 28.08	130 13.93	933 100.00

Frequency Missing = 8

Statistics for Table of Q15A5 by Q19

Statistic	DF	Value	Prob
Chi-Square	24	65.1008	<.0001
Likelihood Ratio Chi-Square	24	61.8585	<.0001
Mantel-Haenszel Chi-Square	1	0.1259	0.7227
Phi Coefficient		0.2642	
Contingency Coefficient		0.2554	
Cramer's V		0.1321	

Effective Sample Size = 933
Frequency Missing = 8

Frequency
Percent
Row Pct
Col Pct

Table of Q15A6 by Q19

Q15A6(Improved crop yields (other than seed related traits))	Q19(Respondent Age)					
	19 to 34 years	35 to 49 years	50 to 59 years	60 to 69 years	70 years and over	Total
Not applicable (No change)	7 0.75 3.57 13.73	25 2.68 12.76 14.53	57 6.11 29.08 17.92	67 7.18 34.18 25.57	40 4.29 20.41 30.77	196 21.01
No Impact	0 0.00 0.00 0.00	1 0.11 7.69 0.58	4 0.43 30.77 1.26	6 0.64 46.15 2.29	2 0.21 15.38 1.54	13 1.39
Slight Impact	3 0.32 5.00 5.88	16 1.71 26.67 9.30	20 2.14 33.33 6.29	16 1.71 26.67 6.11	5 0.54 8.33 3.85	60 6.43
Some Impact	18 1.93 7.63 35.29	50 5.36 21.19 29.07	86 9.22 36.44 27.04	51 5.47 21.61 19.47	31 3.32 13.14 23.85	236 25.29
Quite a bit of Impact	18 1.93 5.19 35.29	70 7.50 20.17 40.70	124 13.29 35.73 38.99	95 10.18 27.38 36.26	40 4.29 11.53 30.77	347 37.19
Great Impact	5 0.54 7.81 9.80	9 0.96 14.06 5.23	23 2.47 35.94 7.23	21 2.25 32.81 8.02	6 0.64 9.38 4.62	64 6.86
missing	0 0.00 0.00 0.00	1 0.11 5.88 0.58	4 0.43 23.53 1.26	6 0.64 35.29 2.29	6 0.64 35.29 4.62	17 1.82
Total	51 5.47	172 18.44	318 34.08	262 28.08	130 13.93	933 100.00

Frequency Missing = 8

Statistics for Table of Q15A6 by Q19

Statistic	DF	Value	Prob
Chi-Square	24	42.4352	0.0115
Likelihood Ratio Chi-Square	24	42.8621	0.0103
Mantel-Haenszel Chi-Square	1	4.0701	0.0436
Phi Coefficient		0.2133	
Contingency Coefficient		0.2086	
Cramer's V		0.1066	

WARNING: 31% of the cells have expected counts less than 5. Chi-Square may not be a valid test.

Effective Sample Size = 933
Frequency Missing = 8

Frequency
Percent
Row Pct
Col Pct

Table of Q15A7 by Q19

Q15A7(Development of more efficient cropping equipment)	Q19(Respondent Age)					
	19 to 34 years	35 to 49 years	50 to 59 years	60 to 69 years	70 years and over	Total
Not applicable (No change)	7 0.75 3.57 13.73	25 2.68 12.76 14.53	57 6.11 29.08 17.92	67 7.18 34.18 25.57	40 4.29 20.41 30.77	196 21.01
No Impact	1 0.11 3.03 1.96	7 0.75 21.21 4.07	10 1.07 30.30 3.14	10 1.07 30.30 3.82	5 0.54 15.15 3.85	33 3.54
Slight Impact	7 0.75 8.14 13.73	16 1.71 18.60 9.30	29 3.11 33.72 9.12	22 2.36 25.58 8.40	12 1.29 13.95 9.23	86 9.22
Some Impact	15 1.61 5.81 29.41	61 6.54 23.64 35.47	99 10.61 38.37 31.13	54 5.79 20.93 20.61	29 3.11 11.24 22.31	258 27.65
Quite a bit of Impact	16 1.71 5.71 31.37	54 5.79 19.29 31.40	100 10.72 35.71 31.45	77 8.25 27.50 29.39	33 3.54 11.79 25.38	280 30.01
Great Impact	5 0.54 8.33 9.80	8 0.86 13.33 4.65	17 1.82 28.33 5.35	25 2.68 41.67 9.54	5 0.54 8.33 3.85	60 6.43
missing	0 0.00 0.00 0.00	1 0.11 5.00 0.58	6 0.64 30.00 1.89	7 0.75 35.00 2.67	6 0.64 30.00 4.62	20 2.14
Total	51 5.47	172 18.44	318 34.08	262 28.08	130 13.93	933 100.00

Frequency Missing = 8

Statistics for Table of Q15A7 by Q19

Statistic	DF	Value	Prob
Chi-Square	24	44.1289	0.0074
Likelihood Ratio Chi-Square	24	44.7077	0.0063
Mantel-Haenszel Chi-Square	1	2.9410	0.0864
Phi Coefficient		0.2175	

Contingency Coefficient		0.2125	
Cramer's V		0.1087	

Effective Sample Size = 933
Frequency Missing = 8

Frequency
Percent
Row Pct
Col Pct

Table of Q15A8 by Q19

Q15A8(Labor availability problems)	Q19(Respondent Age)					
	19 to 34 years	35 to 49 years	50 to 59 years	60 to 69 years	70 years and over	Total
Not applicable (No change)	7 0.75 3.57 13.73	25 2.68 12.76 14.53	57 6.11 29.08 17.92	67 7.18 34.18 25.57	40 4.29 20.41 30.77	196 21.01
No Impact	8 0.86 4.88 15.69	24 2.57 14.63 13.95	57 6.11 34.76 17.92	47 5.04 28.66 17.94	28 3.00 17.07 21.54	164 17.58
Slight Impact	17 1.82 8.29 33.33	46 4.93 22.44 26.74	72 7.72 35.12 22.64	46 4.93 22.44 17.56	24 2.57 11.71 18.46	205 21.97
Some Impact	12 1.29 5.31 23.53	53 5.68 23.45 30.81	82 8.79 36.28 25.79	57 6.11 25.22 21.76	22 2.36 9.73 16.92	226 24.22
Quite a bit of Impact	6 0.64 6.45 11.76	16 1.71 17.20 9.30	35 3.75 37.63 11.01	29 3.11 31.18 11.07	7 0.75 7.53 5.38	93 9.97
Great Impact	1 0.11 3.33 1.96	7 0.75 23.33 4.07	10 1.07 33.33 3.14	10 1.07 33.33 3.82	2 0.21 6.67 1.54	30 3.22
missing	0 0.00 0.00 0.00	1 0.11 5.26 0.58	5 0.54 26.32 1.57	6 0.64 31.58 2.29	7 0.75 36.84 5.38	19 2.04
Total	51 5.47	172 18.44	318 34.08	262 28.08	130 13.93	933 100.00

Frequency Missing = 8

Statistics for Table of Q15A8 by Q19

Statistic	DF	Value	Prob
Chi-Square	24	48.1961	0.0024
Likelihood Ratio Chi-Square	24	48.0943	0.0025
Mantel-Haenszel Chi-Square	1	2.9909	0.0837
Phi Coefficient		0.2273	
Contingency Coefficient		0.2216	
Cramer's V		0.1136	

Effective Sample Size = 933
Frequency Missing = 8

Frequency
Percent
Row Pct
Col Pct

Table of Q15A9 by Q19

Q15A9(Improving wildlife habitat)	Q19(Respondent Age)					
	19 to 34 years	35 to 49 years	50 to 59 years	60 to 69 years	70 years and over	Total
Not applicable (No change)	7 0.75 3.57 13.73	25 2.68 12.76 14.53	57 6.11 29.08 17.92	67 7.18 34.18 25.57	40 4.29 20.41 30.77	196 21.01
No Impact	14 1.50 5.20 27.45	56 6.00 20.82 32.56	89 9.54 33.09 27.99	78 8.36 29.00 29.77	32 3.43 11.90 24.62	269 28.83
Slight Impact	20 2.14 7.84 39.22	55 5.89 21.57 31.98	99 10.61 38.82 31.13	58 6.22 22.75 22.14	23 2.47 9.02 17.69	255 27.33
Some Impact	10 1.07 6.54 19.61	26 2.79 16.99 15.12	55 5.89 35.95 17.30	40 4.29 26.14 15.27	22 2.36 14.38 16.92	153 16.40
Quite a bit of Impact	0 0.00 0.00 0.00	6 0.64 25.00 3.49	8 0.86 33.33 2.52	7 0.75 29.17 2.67	3 0.32 12.50 2.31	24 2.57
Great Impact	0 0.00 0.00 0.00	1 0.11 7.14 0.58	6 0.64 42.86 1.89	5 0.54 35.71 1.91	2 0.21 14.29 1.54	14 1.50
missing	0 0.00 0.00 0.00	3 0.32 13.64 1.74	4 0.43 18.18 1.26	7 0.75 31.82 2.67	8 0.86 36.36 6.15	22 2.36
Total	51 5.47	172 18.44	318 34.08	262 28.08	130 13.93	933 100.00

Frequency Missing = 8

Statistics for Table of Q15A9 by Q19

Statistic	DF	Value	Prob
Chi-Square	24	45.4560	0.0051
Likelihood Ratio Chi-Square	24	46.9409	0.0034

Mantel-Haenszel Chi-Square	1	0.0520	0.8196
Phi Coefficient		0.2207	
Contingency Coefficient		0.2155	
Cramer's V		0.1104	

WARNING: 31% of the cells have expected counts less than 5. Chi-Square may not be a valid test.

Effective Sample Size = 933
Frequency Missing = 8

Frequency
Percent
Row Pct
Col Pct

Table of Q15A10 by Q19

Q15A10(Changing weather /climate patterns)	Q19(Respondent Age) 19 to 34 years	35 to 49 years	50 to 59 years	60 to 69 years	70 years and over	Total
Not applicable (No change)	7 0.75 3.57 13.73	25 2.68 12.76 14.53	57 6.11 29.08 17.92	67 7.18 34.18 25.57	40 4.29 20.41 30.77	196 21.01
No Impact	9 0.96 6.29 17.65	29 3.11 20.28 16.86	45 4.82 31.47 14.15	42 4.50 29.37 16.03	18 1.93 12.59 13.85	143 15.33
Slight Impact	9 0.96 6.16 17.65	27 2.89 18.49 15.70	59 6.32 40.41 18.55	39 4.18 26.71 14.89	12 1.29 8.22 9.23	146 15.65
Some Impact	13 1.39 5.10 25.49	66 7.07 25.88 38.37	90 9.65 35.29 28.30	60 6.43 23.53 22.90	26 2.79 10.20 20.00	255 27.33
Quite a bit of Impact	11 1.18 9.09 21.57	21 2.25 17.36 12.21	44 4.72 36.36 13.84	30 3.22 24.79 11.45	15 1.61 12.40 11.54	121 12.97
Great Impact	2 0.21 3.77 3.92	3 0.32 5.66 1.74	19 2.04 35.85 5.97	18 1.93 33.96 6.87	11 1.18 20.75 8.46	53 5.68
missing	0 0.00 0.00 0.00	1 0.11 5.26 0.58	4 0.43 21.05 1.26	6 0.64 31.58 2.29	8 0.86 42.11 6.15	19 2.04
Total	51 5.47	172 18.44	318 34.08	262 28.08	130 13.93	933 100.00

Frequency Missing = 8

Statistics for Table of Q15A10 by Q19

Statistic	DF	Value	Prob
Chi-Square	24	59.2589	<.0001
Likelihood Ratio Chi-Square	24	58.1443	0.0001
Mantel-Haenszel Chi-Square	1	0.0598	0.8067
Phi Coefficient		0.2520	
Contingency Coefficient		0.2444	
Cramer's V		0.1260	

Effective Sample Size = 933
Frequency Missing = 8

The FREQ Procedure

Frequency
Percent
Row Pct
Col Pct

Table of Q15A1 by Q20

Q15A1(Changing crop prices)	Q20(Respondent Gender) Male	Female	Total
Not applicable (No change)	196 20.83 98.00 21.30	4 0.43 2.00 19.05	200 21.25
No Impact	6 0.64 100.00 0.65	0 0.00 0.00 0.00	6 0.64
Slight Impact	21 2.23 95.45 2.28	1 0.11 4.55 4.76	22 2.34
Some Impact	125 13.28 99.21 13.59	1 0.11 0.79 4.76	126 13.39
Quite a bit of Impact	310 32.94 97.79 33.70	7 0.74 2.21 33.33	317 33.69
Great Impact	250 26.57 97.66 27.17	6 0.64 2.34 28.57	256 27.21
missing	12 1.28 85.71 1.30	2 0.21 14.29 9.52	14 1.49
Total	920 97.77	21 2.23	941 100.00

Statistics for Table of Q15A1 by Q20

Statistic	DF	Value	Prob
Chi-Square	6	11.2589	0.0807
Likelihood Ratio Chi-Square	6	6.6046	0.3590
Mantel-Haenszel Chi-Square	1	1.7589	0.1848
Phi Coefficient		0.1094	
Contingency Coefficient		0.1087	
Cramer's V		0.1094	
WARNING: 36% of the cells have expected counts less than 5. Chi-Square may not be a valid test.			

Sample Size = 941

Frequency
Percent
Row Pct
Col Pct

Table of Q15A2 by Q20

Q15A2(Changing prices in input markets (seed, fertilizer, chemicals, etc.))	Q20(Respondent Gender) Male	Female	Total
Not applicable (No change)	196 20.83 98.00 21.30	4 0.43 2.00 19.05	200 21.25
No Impact	24 2.55 96.00 2.61	1 0.11 4.00 4.76	25 2.66
Slight Impact	76 8.08 100.00 8.26	0 0.00 0.00 0.00	76 8.08
Some Impact	277 29.44 99.28 30.11	2 0.21 0.72 9.52	279 29.65
Quite a bit of Impact	230 24.44 97.05 25.00	7 0.74 2.95 33.33	237 25.19
Great Impact	101 10.73 97.12 10.98	3 0.32 2.88 14.29	104 11.05
missing	16 1.70 80.00 1.74	4 0.43 20.00 19.05	20 2.13
Total	920 97.77	21 2.23	941 100.00

Statistics for Table of Q15A2 by Q20

Statistic	DF	Value	Prob
Chi-Square	6	34.7857	<.0001
Likelihood Ratio Chi-Square	6	19.5741	0.0033
Mantel-Haenszel Chi-Square	1	9.7480	0.0018
Phi Coefficient		0.1923	
Contingency Coefficient		0.1888	
Cramer's V		0.1923	
WARNING: 36% of the cells have expected counts less than 5. Chi-Square may not be a valid test.			

Sample Size = 941

Frequency
Percent
Row Pct
Col Pct

Table of Q15A3 by Q20

Q15A3(Availability of crop and revenue insurance policies)	Q20(Respondent Gender) Male	Female	Total
Not applicable (No change)	196 20.83 98.00 21.30	4 0.43 2.00 19.05	200 21.25
No Impact	67 7.12 98.53 7.28	1 0.11 1.47 4.76	68 7.23
Slight Impact	121 12.86 97.58 13.15	3 0.32 2.42 14.29	124 13.18
Some Impact	253 26.89 98.44 27.50	4 0.43 1.56 19.05	257 27.31
Quite a bit of Impact	182 19.34 97.85 19.78	4 0.43 2.15 19.05	186 19.77
Great Impact	84 8.93 97.67 9.13	2 0.21 2.33 9.52	86 9.14
missing	17 1.81 85.00 1.85	3 0.32 15.00 14.29	20 2.13
Total	920 97.77	21 2.23	941 100.00

Statistics for Table of Q15A3 by Q20

Statistic	DF	Value	Prob
Chi-Square	6	15.7400	0.0152
Likelihood Ratio Chi-Square	6	7.5578	0.2723
Mantel-Haenszel Chi-Square	1	4.2727	0.0387
Phi Coefficient		0.1293	
Contingency Coefficient		0.1283	
Cramer's V		0.1293	
WARNING: 43% of the cells have expected counts less than 5. Chi-Square may not be a valid test.			

Sample Size = 941

Frequency
Percent
Row Pct
Col Pct

Table of Q15A4 by Q20

Q15A4(Availability of drought-tolerant seed)	Q20(Respondent Gender) Male	Female	Total
Not applicable (No change)	196 20.83 98.00 21.30	4 0.43 2.00 19.05	200 21.25
No Impact	115 12.22 99.14 12.50	1 0.11 0.86 4.76	116 12.33
Slight Impact	193 20.51 98.97 20.98	2 0.21 1.03 9.52	195 20.72
Some Impact	264 28.06 98.14 28.70	5 0.53 1.86 23.81	269 28.59
Quite a bit of Impact	104 11.05 94.55 11.30	6 0.64 5.45 28.57	110 11.69
Great Impact	31 3.29 100.00 3.37	0 0.00 0.00 0.00	31 3.29
missing	17 1.81 85.00 1.85	3 0.32 15.00 14.29	20 2.13
Total	920 97.77	21 2.23	941 100.00

Statistics for Table of Q15A4 by Q20

Statistic	DF	Value	Prob
Chi-Square	6	23.4062	0.0007
Likelihood Ratio Chi-Square	6	14.9776	0.0204
Mantel-Haenszel Chi-Square	1	9.6037	0.0019
Phi Coefficient		0.1577	
Contingency Coefficient		0.1558	
Cramer's V		0.1577	
WARNING: 43% of the cells have expected counts less than 5. Chi-Square may not be a valid test.			

Sample Size = 941

Frequency
Percent
Row Pct
Col Pct

Table of Q15A5 by Q20

Q15A5(Developments in pest management practices, including pest management seed traits)	Q20(Respondent Gender) Male	Female	Total
Not applicable (No change)	196 20.83 98.00 21.30	4 0.43 2.00 19.05	200 21.25
No Impact	38 4.04 95.00 4.13	2 0.21 5.00 9.52	40 4.25
Slight Impact	154 16.37 99.35 16.74	1 0.11 0.65 4.76	155 16.47
Some Impact	304 32.31 98.06 33.04	6 0.64 1.94 28.57	310 32.94
Quite a bit of Impact	175 18.60 97.77 19.02	4 0.43 2.23 19.05	179 19.02
Great Impact	35 3.72 97.22 3.80	1 0.11 2.78 4.76	36 3.83
missing	18 1.91 85.71 1.96	3 0.32 14.29 14.29	21 2.23
Total	920	21	941

	97.77	2.23	100.00

Statistics for Table of Q15A5 by Q20

Statistic	DF	Value	Prob
Chi-Square	6	17.4009	0.0079
Likelihood Ratio Chi-Square	6	10.1488	0.1185
Mantel-Haenszel Chi-Square	1	4.5700	0.0325
Phi Coefficient		0.1360	
Contingency Coefficient		0.1347	
Cramer's V		0.1360	
WARNING: 43% of the cells have expected counts less than 5. Chi-Square may not be a valid test.			

Sample Size = 941

Frequency
Percent
Row Pct
Col Pct

Table of Q15A6 by Q20

Q15A6(Improved crop yields (other than seed related traits))	Q20(Respondent Gender)		
	Male	Female	Total
Not applicable (No change)	196 20.83 98.00 21.30	4 0.43 2.00 19.05	200 21.25
No Impact	13 1.38 100.00 1.41	0 0.00 0.00 0.00	13 1.38
Slight Impact	59 6.27 98.33 6.41	1 0.11 1.67 4.76	60 6.38
Some Impact	235 24.97 99.16 25.54	2 0.21 0.84 9.52	237 25.19
Quite a bit of Impact	338 35.92 97.13 36.74	10 1.06 2.87 47.62	348 36.98
Great Impact	64 6.80 98.46 6.96	1 0.11 1.54 4.76	65 6.91
missing	15 1.59 83.33 1.63	3 0.32 16.67 14.29	18 1.91
Total	920 97.77	21 2.23	941 100.00

Statistics for Table of Q15A6 by Q20

Statistic	DF	Value	Prob
Chi-Square	6	20.5162	0.0022
Likelihood Ratio Chi-Square	6	11.5035	0.0740
Mantel-Haenszel Chi-Square	1	5.3631	0.0206
Phi Coefficient		0.1477	
Contingency Coefficient		0.1461	
Cramer's V		0.1477	
WARNING: 36% of the cells have expected counts less than 5. Chi-Square may not be a valid test.			

Sample Size = 941

Frequency
Percent
Row Pct
Col Pct

Table of Q15A7 by Q20

Q15A7(Development of more efficient cropping equipment)	Q20(Respondent Gender)		
	Male	Female	Total
Not applicable (No change)	196 20.83 98.00 21.30	4 0.43 2.00 19.05	200 21.25
No Impact	32 3.40 96.97 3.48	1 0.11 3.03 4.76	33 3.51
Slight Impact	87 9.25 100.00 9.46	0 0.00 0.00 0.00	87 9.25
Some Impact	253 26.89 98.06 27.50	5 0.53 1.94 23.81	258 27.42
Quite a bit of Impact	274 29.12 97.51 29.78	7 0.74 2.49 33.33	281 29.86
Great Impact	60 6.38 98.36 6.52	1 0.11 1.64 4.76	61 6.48
missing	18 1.91 85.71	3 0.32 14.29	21 2.23

	1.96	14.29	
Total	920 97.77	21 2.23	941 100.00

Statistics for Table of Q15A7 by Q20

Statistic	DF	Value	Prob
Chi-Square	6	16.4031	0.0117
Likelihood Ratio Chi-Square	6	10.7652	0.0959
Mantel-Haenszel Chi-Square	1	4.5684	0.0326
Phi Coefficient		0.1320	
Contingency Coefficient		0.1309	
Cramer's V		0.1320	
WARNING: 36% of the cells have expected counts less than 5. Chi-Square may not be a valid test.			

Sample Size = 941

Frequency
Percent
Row Pct
Col Pct

Table of Q15A8 by Q20

Q15A8(Labor availability problems)	Q20(Respondent Gender) Male	Female	Total
Not applicable (No change)	196 20.83 98.00 21.30	4 0.43 2.00 19.05	200 21.25
No Impact	163 17.32 98.79 17.72	2 0.21 1.21 9.52	165 17.53
Slight Impact	202 21.47 98.54 21.96	3 0.32 1.46 14.29	205 21.79
Some Impact	221 23.49 96.93 24.02	7 0.74 3.07 33.33	228 24.23
Quite a bit of Impact	92 9.78 98.92 10.00	1 0.11 1.08 4.76	93 9.88
Great Impact	29 3.08 96.67 3.15	1 0.11 3.33 4.76	30 3.19
missing	17 1.81 85.00 1.85	3 0.32 15.00 14.29	20 2.13
Total	920 97.77	21 2.23	941 100.00

Statistics for Table of Q15A8 by Q20

Statistic	DF	Value	Prob
Chi-Square	6	17.8055	0.0067
Likelihood Ratio Chi-Square	6	9.8023	0.1332
Mantel-Haenszel Chi-Square	1	7.3526	0.0067
Phi Coefficient		0.1376	
Contingency Coefficient		0.1363	
Cramer's V		0.1376	
WARNING: 43% of the cells have expected counts less than 5. Chi-Square may not be a valid test.			

Sample Size = 941

Frequency
Percent
Row Pct
Col Pct

Table of Q15A9 by Q20

Q15A9(Improving wildlife habitat)	Q20(Respondent Gender) Male	Female	Total
Not applicable (No change)	196 20.83 98.00 21.30	4 0.43 2.00 19.05	200 21.25
No Impact	267 28.37 99.26 29.02	2 0.21 0.74 9.52	269 28.59
Slight Impact	249 26.46 97.27 27.07	7 0.74 2.73 33.33	256 27.21
Some Impact	151 16.05 98.05 16.41	3 0.32 1.95 14.29	154 16.37
Quite a bit of Impact	23 2.44 95.83 2.50	1 0.11 4.17 4.76	24 2.55
Great Impact	13 1.38 92.86 1.41	1 0.11 7.14 4.76	14 1.49

missing	21 2.23 87.50 2.28	3 0.32 12.50 14.29	24 2.55
Total	920 97.77	21 2.23	941 100.00

Statistics for Table of Q15A9 by Q20

Statistic	DF	Value	Prob
Chi-Square	6	16.6904	0.0105
Likelihood Ratio Chi-Square	6	11.0510	0.0868
Mantel-Haenszel Chi-Square	1	10.9817	0.0009
Phi Coefficient		0.1332	
Contingency Coefficient		0.1320	
Cramer's V		0.1332	
WARNING: 36% of the cells have expected counts less than 5. Chi-Square may not be a valid test.			

Sample Size = 941

Frequency
Percent
Row Pct
Col Pct

Table of Q15A10 by Q20

Q15A10(Changing weather /climate patterns)	Q20(Respondent Gender) Male	Female	Total
Not applicable (No change)	196 20.83 98.00 21.30	4 0.43 2.00 19.05	200 21.25
No Impact	142 15.09 98.61 15.43	2 0.21 1.39 9.52	144 15.30
Slight Impact	145 15.41 99.32 15.76	1 0.11 0.68 4.76	146 15.52
Some Impact	251 26.67 98.05 27.28	5 0.53 1.95 23.81	256 27.21
Quite a bit of Impact	118 12.54 97.52 12.83	3 0.32 2.48 14.29	121 12.86
Great Impact	51 5.42 94.44 5.54	3 0.32 5.56 14.29	54 5.74
missing	17 1.81 85.00 1.85	3 0.32 15.00 14.29	20 2.13
Total	920 97.77	21 2.23	941 100.00

Statistics for Table of Q15A10 by Q20

Statistic	DF	Value	Prob
Chi-Square	6	19.9224	0.0029
Likelihood Ratio Chi-Square	6	11.5268	0.0734
Mantel-Haenszel Chi-Square	1	9.5039	0.0021
Phi Coefficient		0.1455	
Contingency Coefficient		0.1440	
Cramer's V		0.1455	
WARNING: 43% of the cells have expected counts less than 5. Chi-Square may not be a valid test.			

Sample Size = 941

The FREQ Procedure

Frequency
Percent
Row Pct
Col Pct

Table of Q15A1 by Q21

Q15A1(Changing crop prices)	Q21(Respondent Level of Education) Less than high school	High school	Some college/technical school	4-year college degree	Advanced degree (Masters, etc.)	Total
Not applicable (No change)	12 1.28 6.00 50.00	72 7.65 36.00 24.57	76 8.08 38.00 21.29	34 3.61 17.00 14.85	6 0.64 3.00 15.79	200 21.25
No Impact	0 0.00 0.00 0.00	2 0.21 33.33 0.68	3 0.32 50.00 0.84	1 0.11 16.67 0.44	0 0.00 0.00 0.00	6 0.64
Slight Impact	0 0.00 0.00 0.00	5 0.53 22.73 1.71	9 0.96 40.91 2.52	7 0.74 31.82 3.06	1 0.11 4.55 2.63	22 2.34
Some Impact	3 0.32 2.38 12.50	45 4.78 35.71 15.36	47 4.99 37.30 13.17	30 3.19 23.81 13.10	1 0.11 0.79 2.63	126 13.39
Quite a bit of Impact	4 0.43 1.26	80 8.50 25.24	123 13.07 38.80	93 9.88 29.34	17 1.81 5.36	317 33.69

	16.67	27.30	34.45	40.61	44.74	
Great Impact	3 0.32 1.17 12.50	82 8.71 32.03 27.99	95 10.10 37.11 26.61	63 6.70 24.61 27.51	13 1.38 5.08 34.21	256 27.21
missing	2 0.21 14.29 8.33	7 0.74 50.00 2.39	4 0.43 28.57 1.12	1 0.11 7.14 0.44	0 0.00 0.00 0.00	14 1.49
Total	24 2.55	293 31.14	357 37.94	229 24.34	38 4.04	941 100.00

Statistics for Table of Q15A1 by Q21

Statistic	DF	Value	Prob
Chi-Square	24	47.1617	0.0032
Likelihood Ratio Chi-Square	24	45.5051	0.0051
Mantel-Haenszel Chi-Square	1	6.6122	0.0101
Phi Coefficient		0.2239	
Contingency Coefficient		0.2185	
Cramer's V		0.1119	
WARNING: 34% of the cells have expected counts less than 5. Chi-Square may not be a valid test.			

Sample Size = 941

Frequency
Percent
Row Pct
Col Pct

Table of Q15A2 by Q21

Q15A2(Changing prices in input markets (seed, fertilizer, chemicals, etc.))	Q21(Respondent Level of Education)					
	Less than high school	High school	Some college/technical school	4-year college degree	Advanced degree (Masters, etc.)	Total
Not applicable (No change)	12 1.28 6.00 50.00	72 7.65 36.00 24.57	76 8.08 38.00 21.29	34 3.61 17.00 14.85	6 0.64 3.00 15.79	200 21.25
No Impact	0 0.00 0.00 0.00	6 0.64 24.00 2.05	15 1.59 60.00 4.20	3 0.32 12.00 1.31	1 0.11 4.00 2.63	25 2.66
Slight Impact	0 0.00 0.00 0.00	22 2.34 28.95 7.51	21 2.23 27.63 5.88	25 2.66 32.89 10.92	8 0.85 10.53 21.05	76 8.08
Some Impact	6 0.64 2.15 25.00	72 7.65 25.81 24.57	111 11.80 39.78 31.09	80 8.50 28.67 34.93	10 1.06 3.58 26.32	279 29.65
Quite a bit of Impact	2 0.21 0.84 8.33	75 7.97 31.65 25.60	86 9.14 36.29 24.09	62 6.59 26.16 27.07	12 1.28 5.06 31.58	237 25.19
Great Impact	2 0.21 1.92 8.33	37 3.93 35.58 12.63	42 4.46 40.38 11.76	22 2.34 21.15 9.61	1 0.11 0.96 2.63	104 11.05
missing	2 0.21 10.00 8.33	9 0.96 45.00 3.07	6 0.64 30.00 1.68	3 0.32 15.00 1.31	0 0.00 0.00 0.00	20 2.13
Total	24 2.55	293 31.14	357 37.94	229 24.34	38 4.04	941 100.00

Statistics for Table of Q15A2 by Q21

Statistic	DF	Value	Prob
Chi-Square	24	56.4222	0.0002
Likelihood Ratio Chi-Square	24	55.3457	0.0003
Mantel-Haenszel Chi-Square	1	0.5844	0.4446
Phi Coefficient		0.2449	
Contingency Coefficient		0.2378	
Cramer's V		0.1224	
WARNING: 26% of the cells have expected counts less than 5. Chi-Square may not be a valid test.			

Sample Size = 941

Frequency
Percent
Row Pct
Col Pct

Table of Q15A3 by Q21

Q15A3(Availability of crop and revenue insurance policies)	Q21(Respondent Level of Education)					
	Less than high school	High school	Some college/technical school	4-year college degree	Advanced degree (Masters, etc.)	Total
Not applicable (No change)	12 1.28 6.00 50.00	72 7.65 36.00 24.57	76 8.08 38.00 21.29	34 3.61 17.00 14.85	6 0.64 3.00 15.79	200 21.25
No Impact	2 0.21 2.94 8.33	23 2.44 33.82 7.85	30 3.19 44.12 8.40	8 0.85 11.76 3.49	5 0.53 7.35 13.16	68 7.23
Slight Impact	2 0.21 1.61 8.33	36 3.83 29.03 12.29	53 5.63 42.74 14.85	26 2.76 20.97 11.35	7 0.74 5.65 18.42	124 13.18
Some Impact	3 0.32 1.17 12.50	79 8.40 30.74 26.96	103 10.95 40.08 28.85	65 6.91 25.29 28.38	7 0.74 2.72 18.42	257 27.31

Quite a bit of Impact	3 0.32 1.61 12.50	43 4.57 23.12 14.68	59 6.27 31.72 16.53	71 7.55 38.17 31.00	10 1.06 5.38 26.32	186 19.77
Great Impact	0 0.00 0.00 0.00	30 3.19 34.88 10.24	30 3.19 34.88 8.40	23 2.44 26.74 10.04	3 0.32 3.49 7.89	86 9.14
missing	2 0.21 10.00 8.33	10 1.06 50.00 3.41	6 0.64 30.00 1.68	2 0.21 10.00 0.87	0 0.00 0.00 0.00	20 2.13
Total	24 2.55	293 31.14	357 37.94	229 24.34	38 4.04	941 100.00

Statistics for Table of Q15A3 by Q21

Statistic	DF	Value	Prob
Chi-Square	24	63.4936	<.0001
Likelihood Ratio Chi-Square	24	62.2653	<.0001
Mantel-Haenszel Chi-Square	1	5.4756	0.0193
Phi Coefficient		0.2598	
Contingency Coefficient		0.2514	
Cramer's V		0.1299	
WARNING: 26% of the cells have expected counts less than 5. Chi-Square may not be a valid test.			

Sample Size = 941

Frequency
Percent
Row Pct
Col Pct

Table of Q15A4 by Q21

	Q21(Respondent Level of Education)					
Q15A4(Availability of drought-tolerant seed)	**Less than high school**	**High school**	**Some college/technical school**	**4-year college degree**	**Advanced degree (Masters, etc.)**	**Total**
Not applicable (No change)	12 1.28 6.00 50.00	72 7.65 36.00 24.57	76 8.08 38.00 21.29	34 3.61 17.00 14.85	6 0.64 3.00 15.79	200 21.25
No Impact	2 0.21 1.72 8.33	24 2.55 20.69 8.19	43 4.57 37.07 12.04	38 4.04 32.76 16.59	9 0.96 7.76 23.68	116 12.33
Slight Impact	2 0.21 1.03 8.33	55 5.84 28.21 18.77	75 7.97 38.46 21.01	54 5.74 27.69 23.58	9 0.96 4.62 23.68	195 20.72
Some Impact	2 0.21 0.74 8.33	78 8.29 29.00 26.62	116 12.33 43.12 32.49	62 6.59 23.05 27.07	11 1.17 4.09 28.95	269 28.59
Quite a bit of Impact	4 0.43 3.64 16.67	42 4.46 38.18 14.33	31 3.29 28.18 8.68	30 3.19 27.27 13.10	3 0.32 2.73 7.89	110 11.69
Great Impact	0 0.00 0.00 0.00	13 1.38 41.94 4.44	10 1.06 32.26 2.80	8 0.85 25.81 3.49	0 0.00 0.00 0.00	31 3.29
missing	2 0.21 10.00 8.33	9 0.96 45.00 3.07	6 0.64 30.00 1.68	3 0.32 15.00 1.31	0 0.00 0.00 0.00	20 2.13
Total	24 2.55	293 31.14	357 37.94	229 24.34	38 4.04	941 100.00

Statistics for Table of Q15A4 by Q21

Statistic	DF	Value	Prob
Chi-Square	24	53.7050	0.0005
Likelihood Ratio Chi-Square	24	53.8053	0.0005
Mantel-Haenszel Chi-Square	1	0.4172	0.5184
Phi Coefficient		0.2389	
Contingency Coefficient		0.2324	
Cramer's V		0.1194	
WARNING: 29% of the cells have expected counts less than 5. Chi-Square may not be a valid test.			

Sample Size = 941

Frequency
Percent
Row Pct
Col Pct

Table of Q15A5 by Q21

	Q21(Respondent Level of Education)					
Q15A5(Developments in pest management practices, including pest management seed traits)	**Less than high school**	**High school**	**Some college/technical school**	**4-year college degree**	**Advanced degree (Masters, etc.)**	**Total**
Not applicable (No change)	12 1.28 6.00 50.00	72 7.65 36.00 24.57	76 8.08 38.00 21.29	34 3.61 17.00 14.85	6 0.64 3.00 15.79	200 21.25
No Impact	0 0.00 0.00 0.00	8 0.85 20.00 2.73	22 2.34 55.00 6.16	8 0.85 20.00 3.49	2 0.21 5.00 5.26	40 4.25
Slight Impact	5 0.53 3.23 20.83	44 4.68 28.39 15.02	62 6.59 40.00 17.37	37 3.93 23.87 16.16	7 0.74 4.52 18.42	155 16.47

Some Impact	2 0.21 0.65 8.33	83 8.82 26.77 28.33	127 13.50 40.97 35.57	81 8.61 26.13 35.37	17 1.81 5.48 44.74	310 32.94
Quite a bit of Impact	2 0.21 1.12 8.33	61 6.48 34.08 20.82	53 5.63 29.61 14.85	58 6.16 32.40 25.33	5 0.53 2.79 13.16	179 19.02
Great Impact	0 0.00 0.00 0.00	15 1.59 41.67 5.12	11 1.17 30.56 3.08	9 0.96 25.00 3.93	1 0.11 2.78 2.63	36 3.83
missing	3 0.32 14.29 12.50	10 1.06 47.62 3.41	6 0.64 28.57 1.68	2 0.21 9.52 0.87	0 0.00 0.00 0.00	21 2.23
Total	24 2.55	293 31.14	357 37.94	229 24.34	38 4.04	941 100.00

Statistics for Table of Q15A5 by Q21

Statistic	DF	Value	Prob
Chi-Square	24	61.8388	<.0001
Likelihood Ratio Chi-Square	24	58.8270	<.0001
Mantel-Haenszel Chi-Square	1	0.6094	0.4350
Phi Coefficient		0.2564	
Contingency Coefficient		0.2483	
Cramer's V		0.1282	
WARNING: 23% of the cells have expected counts less than 5. Chi-Square may not be a valid test.			

Sample Size = 941

Frequency
Percent
Row Pct
Col Pct

Table of Q15A6 by Q21

Q15A6(Improved crop yields (other than seed related traits))	Q21(Respondent Level of Education)					
	Less than high school	High school	Some college/technical school	4-year college degree	Advanced degree (Masters, etc.)	Total
Not applicable (No change)	12 1.28 6.00 50.00	72 7.65 36.00 24.57	76 8.08 38.00 21.29	34 3.61 17.00 14.85	6 0.64 3.00 15.79	200 21.25
No Impact	1 0.11 7.69 4.17	4 0.43 30.77 1.37	5 0.53 38.46 1.40	2 0.21 15.38 0.87	1 0.11 7.69 2.63	13 1.38
Slight Impact	1 0.11 1.67 4.17	12 1.28 20.00 4.10	27 2.87 45.00 7.56	20 2.13 33.33 8.73	0 0.00 0.00 0.00	60 6.38
Some Impact	4 0.43 1.69 16.67	70 7.44 29.54 23.89	104 11.05 43.88 29.13	53 5.63 22.36 23.14	6 0.64 2.53 15.79	237 25.19
Quite a bit of Impact	3 0.32 0.86 12.50	99 10.52 28.45 33.79	118 12.54 33.91 33.05	104 11.05 29.89 45.41	24 2.55 6.90 63.16	348 36.98
Great Impact	1 0.11 1.54 4.17	28 2.98 43.08 9.56	21 2.23 32.31 5.88	14 1.49 21.54 6.11	1 0.11 1.54 2.63	65 6.91
missing	2 0.21 11.11 8.33	8 0.85 44.44 2.73	6 0.64 33.33 1.68	2 0.21 11.11 0.87	0 0.00 0.00 0.00	18 1.91
Total	24 2.55	293 31.14	357 37.94	229 24.34	38 4.04	941 100.00

Statistics for Table of Q15A6 by Q21

Statistic	DF	Value	Prob
Chi-Square	24	61.5433	<.0001
Likelihood Ratio Chi-Square	24	60.2392	<.0001
Mantel-Haenszel Chi-Square	1	4.1232	0.0423
Phi Coefficient		0.2557	
Contingency Coefficient		0.2478	
Cramer's V		0.1279	
WARNING: 34% of the cells have expected counts less than 5. Chi-Square may not be a valid test.			

Sample Size = 941

Frequency
Percent
Row Pct
Col Pct

Table of Q15A7 by Q21

Q15A7(Development of more efficient cropping equipment)	Q21(Respondent Level of Education)					
	Less than high school	High school	Some college/technical school	4-year college degree	Advanced degree (Masters, etc.)	Total
Not applicable (No change)	12 1.28 6.00 50.00	72 7.65 36.00 24.57	76 8.08 38.00 21.29	34 3.61 17.00 14.85	6 0.64 3.00 15.79	200 21.25
No Impact	1 0.11 3.03 4.17	8 0.85 24.24 2.73	12 1.28 36.36 3.36	9 0.96 27.27 3.93	3 0.32 9.09 7.89	33 3.51
Slight Impact	2 0.21	26 2.76	34 3.61	22 2.34	3 0.32	87 9.25

	2.30 8.33	29.89 8.87	39.08 9.52	25.29 9.61	3.45 7.89	
Some Impact	4 0.43 1.55 16.67	78 8.29 30.23 26.62	107 11.37 41.47 29.97	64 6.80 24.81 27.95	5 0.53 1.94 13.16	258 27.42
Quite a bit of Impact	2 0.21 0.71 8.33	76 8.08 27.05 25.94	104 11.05 37.01 29.13	81 8.61 28.83 35.37	18 1.91 6.41 47.37	281 29.86
Great Impact	1 0.11 1.64 4.17	22 2.34 36.07 7.51	18 1.91 29.51 5.04	17 1.81 27.87 7.42	3 0.32 4.92 7.89	61 6.48
missing	2 0.21 9.52 8.33	11 1.17 52.38 3.75	6 0.64 28.57 1.68	2 0.21 9.52 0.87	0 0.00 0.00 0.00	21 2.23
Total	24 2.55	293 31.14	357 37.94	229 24.34	38 4.04	941 100.00

Statistics for Table of Q15A7 by Q21

Statistic	DF	Value	Prob
Chi-Square	24	47.5865	0.0028
Likelihood Ratio Chi-Square	24	46.0136	0.0044
Mantel-Haenszel Chi-Square	1	3.0804	0.0792
Phi Coefficient		0.2249	
Contingency Coefficient		0.2194	
Cramer's V		0.1124	
WARNING: 23% of the cells have expected counts less than 5. Chi-Square may not be a valid test.			

Sample Size = 941

Frequency
Percent
Row Pct
Col Pct

Table of Q15A8 by Q21

	Q21(Respondent Level of Education)					
Q15A8(Labor availability problems)	**Less than high school**	**High school**	**Some college/technical school**	**4-year college degree**	**Advanced degree (Masters, etc.)**	**Total**
Not applicable (No change)	12 1.28 6.00 50.00	72 7.65 36.00 24.57	76 8.08 38.00 21.29	34 3.61 17.00 14.85	6 0.64 3.00 15.79	200 21.25
No Impact	4 0.43 2.42 16.67	47 4.99 28.48 16.04	73 7.76 44.24 20.45	35 3.72 21.21 15.28	6 0.64 3.64 15.79	165 17.53
Slight Impact	3 0.32 1.46 12.50	64 6.80 31.22 21.84	82 8.71 40.00 22.97	49 5.21 23.90 21.40	7 0.74 3.41 18.42	205 21.79
Some Impact	1 0.11 0.44 4.17	69 7.33 30.26 23.55	73 7.76 32.02 20.45	75 7.97 32.89 32.75	10 1.06 4.39 26.32	228 24.23
Quite a bit of Impact	2 0.21 2.15 8.33	18 1.91 19.35 6.14	38 4.04 40.86 10.64	28 2.98 30.11 12.23	7 0.74 7.53 18.42	93 9.88
Great Impact	0 0.00 0.00 0.00	14 1.49 46.67 4.78	8 0.85 26.67 2.24	6 0.64 20.00 2.62	2 0.21 6.67 5.26	30 3.19
missing	2 0.21 10.00 8.33	9 0.96 45.00 3.07	7 0.74 35.00 1.96	2 0.21 10.00 0.87	0 0.00 0.00 0.00	20 2.13
Total	24 2.55	293 31.14	357 37.94	229 24.34	38 4.04	941 100.00

Statistics for Table of Q15A8 by Q21

Statistic	DF	Value	Prob
Chi-Square	24	54.5766	0.0004
Likelihood Ratio Chi-Square	24	53.9405	0.0004
Mantel-Haenszel Chi-Square	1	3.2224	0.0726
Phi Coefficient		0.2408	
Contingency Coefficient		0.2341	
Cramer's V		0.1204	
WARNING: 23% of the cells have expected counts less than 5. Chi-Square may not be a valid test.			

Sample Size = 941

Frequency
Percent
Row Pct
Col Pct

Table of Q15A9 by Q21

	Q21(Respondent Level of Education)					
Q15A9(Improving wildlife habitat)	**Less than high school**	**High school**	**Some college/technical school**	**4-year college degree**	**Advanced degree (Masters, etc.)**	**Total**
Not applicable (No change)	12 1.28 6.00 50.00	72 7.65 36.00 24.57	76 8.08 38.00 21.29	34 3.61 17.00 14.85	6 0.64 3.00 15.79	200 21.25
No Impact	2 0.21 0.74 8.33	74 7.86 27.51 25.26	102 10.84 37.92 28.57	78 8.29 29.00 34.06	13 1.38 4.83 34.21	269 28.59

Slight Impact	3 0.32 1.17 12.50	69 7.33 26.95 23.55	98 10.41 38.28 27.45	74 7.86 28.91 32.31	12 1.28 4.69 31.58	256 27.21
Some Impact	3 0.32 1.95 12.50	52 5.53 33.77 17.75	58 6.16 37.66 16.25	35 3.72 22.73 15.28	6 0.64 3.90 15.79	154 16.37
Quite a bit of Impact	1 0.11 4.17 4.17	9 0.96 37.50 3.07	9 0.96 37.50 2.52	4 0.43 16.67 1.75	1 0.11 4.17 2.63	24 2.55
Great Impact	0 0.00 0.00 0.00	6 0.64 42.86 2.05	7 0.74 50.00 1.96	1 0.11 7.14 0.44	0 0.00 0.00 0.00	14 1.49
missing	3 0.32 12.50 12.50	11 1.17 45.83 3.75	7 0.74 29.17 1.96	3 0.32 12.50 1.31	0 0.00 0.00 0.00	24 2.55
Total	24 2.55	293 31.14	357 37.94	229 24.34	38 4.04	941 100.00

Statistics for Table of Q15A9 by Q21

Statistic	DF	Value	Prob
Chi-Square	24	48.4987	0.0022
Likelihood Ratio Chi-Square	24	46.0941	0.0043
Mantel-Haenszel Chi-Square	1	2.3380	0.1263
Phi Coefficient		0.2270	
Contingency Coefficient		0.2214	
Cramer's V		0.1135	
WARNING: 26% of the cells have expected counts less than 5. Chi-Square may not be a valid test.			

Sample Size = 941

Frequency
Percent
Row Pct
Col Pct

Table of Q15A10 by Q21

	Q21(Respondent Level of Education)					
Q15A10(Changing weather /climate patterns)	Less than high school	High school	Some college/technical school	4-year college degree	Advanced degree (Masters, etc.)	Total
Not applicable (No change)	12 1.28 6.00 50.00	72 7.65 36.00 24.57	76 8.08 38.00 21.29	34 3.61 17.00 14.85	6 0.64 3.00 15.79	200 21.25
No Impact	1 0.11 0.69 4.17	28 2.98 19.44 9.56	63 6.70 43.75 17.65	44 4.68 30.56 19.21	8 0.85 5.56 21.05	144 15.30
Slight Impact	1 0.11 0.68 4.17	50 5.31 34.25 17.06	47 4.99 32.19 13.17	41 4.36 28.08 17.90	7 0.74 4.79 18.42	146 15.52
Some Impact	4 0.43 1.56 16.67	73 7.76 28.52 24.91	113 12.01 44.14 31.65	61 6.48 23.83 26.64	5 0.53 1.95 13.16	256 27.21
Quite a bit of Impact	2 0.21 1.65 8.33	40 4.25 33.06 13.65	31 3.29 25.62 8.68	38 4.04 31.40 16.59	10 1.06 8.26 26.32	121 12.86
Great Impact	2 0.21 3.70 8.33	21 2.23 38.89 7.17	20 2.13 37.04 5.60	9 0.96 16.67 3.93	2 0.21 3.70 5.26	54 5.74
missing	2 0.21 10.00 8.33	9 0.96 45.00 3.07	7 0.74 35.00 1.96	2 0.21 10.00 0.87	0 0.00 0.00 0.00	20 2.13
Total	24 2.55	293 31.14	357 37.94	229 24.34	38 4.04	941 100.00

Statistics for Table of Q15A10 by Q21

Statistic	DF	Value	Prob
Chi-Square	24	64.1409	<.0001
Likelihood Ratio Chi-Square	24	63.5883	<.0001
Mantel-Haenszel Chi-Square	1	0.0918	0.7619
Phi Coefficient		0.2611	
Contingency Coefficient		0.2526	
Cramer's V		0.1305	
WARNING: 26% of the cells have expected counts less than 5. Chi-Square may not be a valid test.			

Sample Size = 941

The FREQ Procedure

Frequency
Percent
Row Pct
Col Pct

Table of Q15A1 by Q22

	Q22(Principal Occupation)				
Q15A1(Changing crop prices)	Farming or Ranching	Employment in off-farm job	Own/operate a non-farm business	Retired	Total
Not applicable (No change)	171 18.17	9 0.96	8 0.85	12 1.28	200 21.25

	85.50 20.58	4.50 16.67	4.00 32.00	6.00 38.71	
No Impact	5 0.53 83.33 0.60	1 0.11 16.67 1.85	0 0.00 0.00 0.00	0 0.00 0.00 0.00	6 0.64
Slight Impact	19 2.02 86.36 2.29	2 0.21 9.09 3.70	1 0.11 4.55 4.00	0 0.00 0.00 0.00	22 2.34
Some Impact	117 12.43 92.86 14.08	2 0.21 1.59 3.70	3 0.32 2.38 12.00	4 0.43 3.17 12.90	126 13.39
Quite a bit of Impact	285 30.29 89.91 34.30	20 2.13 6.31 37.04	7 0.74 2.21 28.00	5 0.53 1.58 16.13	317 33.69
Great Impact	223 23.70 87.11 26.84	20 2.13 7.81 37.04	5 0.53 1.95 20.00	8 0.85 3.13 25.81	256 27.21
missing	11 1.17 78.57 1.32	0 0.00 0.00 0.00	1 0.11 7.14 4.00	2 0.21 14.29 6.45	14 1.49
Total	831 88.31	54 5.74	25 2.66	31 3.29	941 100.00

Statistics for Table of Q15A1 by Q22

Statistic	DF	Value	Prob
Chi-Square	18	26.6758	0.0853
Likelihood Ratio Chi-Square	18	26.4015	0.0909
Mantel-Haenszel Chi-Square	1	1.1960	0.2741
Phi Coefficient		0.1684	
Contingency Coefficient		0.1660	
Cramer's V		0.0972	
WARNING: 39% of the cells have expected counts less than 5. Chi-Square may not be a valid test.			

Sample Size = 941

Frequency
Percent
Row Pct
Col Pct

Table of Q15A2 by Q22

	Q22(Principal Occupation)				
Q15A2(Changing prices in input markets (seed, fertilizer, chemicals, etc.))	**Farming or Ranching**	**Employment in off-farm job**	**Own/operate a non-farm business**	**Retired**	**Total**
Not applicable (No change)	171 18.17 85.50 20.58	9 0.96 4.50 16.67	8 0.85 4.00 32.00	12 1.28 6.00 38.71	200 21.25
No Impact	22 2.34 88.00 2.65	1 0.11 4.00 1.85	2 0.21 8.00 8.00	0 0.00 0.00 0.00	25 2.66
Slight Impact	69 7.33 90.79 8.30	6 0.64 7.89 11.11	0 0.00 0.00 0.00	1 0.11 1.32 3.23	76 8.08
Some Impact	256 27.21 91.76 30.81	11 1.17 3.94 20.37	5 0.53 1.79 20.00	7 0.74 2.51 22.58	279 29.65
Quite a bit of Impact	204 21.68 86.08 24.55	21 2.23 8.86 38.89	8 0.85 3.38 32.00	4 0.43 1.69 12.90	237 25.19
Great Impact	92 9.78 88.46 11.07	6 0.64 5.77 11.11	1 0.11 0.96 4.00	5 0.53 4.81 16.13	104 11.05
missing	17 1.81 85.00 2.05	0 0.00 0.00 0.00	1 0.11 5.00 4.00	2 0.21 10.00 6.45	20 2.13
Total	831 88.31	54 5.74	25 2.66	31 3.29	941 100.00

Statistics for Table of Q15A2 by Q22

Statistic	DF	Value	Prob
Chi-Square	18	29.6415	0.0411
Likelihood Ratio Chi-Square	18	31.2400	0.0270
Mantel-Haenszel Chi-Square	1	0.4622	0.4966
Phi Coefficient		0.1775	
Contingency Coefficient		0.1748	
Cramer's V		0.1025	
WARNING: 39% of the cells have expected counts less than 5. Chi-Square may not be a valid test.			

Sample Size = 941

Frequency
Percent
Row Pct
Col Pct

Table of Q15A3 by Q22

	Q22(Principal Occupation)				
Q15A3(Availability of crop and revenue insurance policies)	**Farming or Ranching**	**Employment in off-farm job**	**Own/operate a non-farm business**	**Retired**	**Total**

Not applicable (No change)	171 18.17 85.50 20.58	9 0.96 4.50 16.67	8 0.85 4.00 32.00	12 1.28 6.00 38.71	200 21.25
No Impact	60 6.38 88.24 7.22	6 0.64 8.82 11.11	2 0.21 2.94 8.00	0 0.00 0.00 0.00	68 7.23
Slight Impact	113 12.01 91.13 13.60	7 0.74 5.65 12.96	2 0.21 1.61 8.00	2 0.21 1.61 6.45	124 13.18
Some Impact	227 24.12 88.33 27.32	17 1.81 6.61 31.48	5 0.53 1.95 20.00	8 0.85 3.11 25.81	257 27.31
Quite a bit of Impact	168 17.85 90.32 20.22	8 0.85 4.30 14.81	6 0.64 3.23 24.00	4 0.43 2.15 12.90	186 19.77
Great Impact	76 8.08 88.37 9.15	7 0.74 8.14 12.96	0 0.00 0.00 0.00	3 0.32 3.49 9.68	86 9.14
missing	16 1.70 80.00 1.93	0 0.00 0.00 0.00	2 0.21 10.00 8.00	2 0.21 10.00 6.45	20 2.13
Total	831 88.31	54 5.74	25 2.66	31 3.29	941 100.00

Statistics for Table of Q15A3 by Q22

Statistic	DF	Value	Prob
Chi-Square	18	25.4221	0.1137
Likelihood Ratio Chi-Square	18	27.6760	0.0672
Mantel-Haenszel Chi-Square	1	0.1873	0.6652
Phi Coefficient		0.1644	
Contingency Coefficient		0.1622	
Cramer's V		0.0949	
WARNING: 43% of the cells have expected counts less than 5. Chi-Square may not be a valid test.			

Sample Size = 941

Frequency
Percent
Row Pct
Col Pct

Table of Q15A4 by Q22

	Q22(Principal Occupation)				
Q15A4(Availability of drought-tolerant seed)	**Farming or Ranching**	**Employment in off-farm job**	**Own/operate a non-farm business**	**Retired**	**Total**
Not applicable (No change)	171 18.17 85.50 20.58	9 0.96 4.50 16.67	8 0.85 4.00 32.00	12 1.28 6.00 38.71	200 21.25
No Impact	104 11.05 89.66 12.52	9 0.96 7.76 16.67	2 0.21 1.72 8.00	1 0.11 0.86 3.23	116 12.33
Slight Impact	181 19.23 92.82 21.78	10 1.06 5.13 18.52	2 0.21 1.03 8.00	2 0.21 1.03 6.45	195 20.72
Some Impact	234 24.87 86.99 28.16	18 1.91 6.69 33.33	5 0.53 1.86 20.00	12 1.28 4.46 38.71	269 28.59
Quite a bit of Impact	98 10.41 89.09 11.79	5 0.53 4.55 9.26	7 0.74 6.36 28.00	0 0.00 0.00 0.00	110 11.69
Great Impact	26 2.76 83.87 3.13	3 0.32 9.68 5.56	0 0.00 0.00 0.00	2 0.21 6.45 6.45	31 3.29
missing	17 1.81 85.00 2.05	0 0.00 0.00 0.00	1 0.11 5.00 4.00	2 0.21 10.00 6.45	20 2.13
Total	831 88.31	54 5.74	25 2.66	31 3.29	941 100.00

Statistics for Table of Q15A4 by Q22

Statistic	DF	Value	Prob
Chi-Square	18	34.2158	0.0118
Likelihood Ratio Chi-Square	18	38.3186	0.0035
Mantel-Haenszel Chi-Square	1	0.0127	0.9103
Phi Coefficient		0.1907	
Contingency Coefficient		0.1873	
Cramer's V		0.1101	
WARNING: 36% of the cells have expected counts less than 5. Chi-Square may not be a valid test.			

Sample Size = 941

Frequency
Percent

Table of Q15A5 by Q22

Row Pct
Col Pct

Q15A5(Developments in pest management practices, including pest management seed traits)	Q22(Principal Occupation)				
	Farming or Ranching	Employment in off-farm job	Own/operate a non-farm business	Retired	Total
Not applicable (No change)	171 18.17 85.50 20.58	9 0.96 4.50 16.67	8 0.85 4.00 32.00	12 1.28 6.00 38.71	200 21.25
No Impact	35 3.72 87.50 4.21	4 0.43 10.00 7.41	1 0.11 2.50 4.00	0 0.00 0.00 0.00	40 4.25
Slight Impact	141 14.98 90.97 16.97	7 0.74 4.52 12.96	3 0.32 1.94 12.00	4 0.43 2.58 12.90	155 16.47
Some Impact	272 28.91 87.74 32.73	21 2.23 6.77 38.89	8 0.85 2.58 32.00	9 0.96 2.90 29.03	310 32.94
Quite a bit of Impact	162 17.22 90.50 19.49	11 1.17 6.15 20.37	3 0.32 1.68 12.00	3 0.32 1.68 9.68	179 19.02
Great Impact	32 3.40 88.89 3.85	2 0.21 5.56 3.70	1 0.11 2.78 4.00	1 0.11 2.78 3.23	36 3.83
missing	18 1.91 85.71 2.17	0 0.00 0.00 0.00	1 0.11 4.76 4.00	2 0.21 9.52 6.45	21 2.23
Total	831 88.31	54 5.74	25 2.66	31 3.29	941 100.00

Statistics for Table of Q15A5 by Q22

Statistic	DF	Value	Prob
Chi-Square	18	17.2184	0.5081
Likelihood Ratio Chi-Square	18	18.0525	0.4522
Mantel-Haenszel Chi-Square	1	1.0535	0.3047
Phi Coefficient		0.1353	
Contingency Coefficient		0.1340	
Cramer's V		0.0781	
WARNING: 39% of the cells have expected counts less than 5. Chi-Square may not be a valid test.			

Sample Size = 941

Frequency
Percent
Row Pct
Col Pct

Table of Q15A6 by Q22

Q15A6(Improved crop yields (other than seed related traits))	Q22(Principal Occupation)				
	Farming or Ranching	Employment in off-farm job	Own/operate a non-farm business	Retired	Total
Not applicable (No change)	171 18.17 85.50 20.58	9 0.96 4.50 16.67	8 0.85 4.00 32.00	12 1.28 6.00 38.71	200 21.25
No Impact	11 1.17 84.62 1.32	2 0.21 15.38 3.70	0 0.00 0.00 0.00	0 0.00 0.00 0.00	13 1.38
Slight Impact	55 5.84 91.67 6.62	3 0.32 5.00 5.56	1 0.11 1.67 4.00	1 0.11 1.67 3.23	60 6.38
Some Impact	212 22.53 89.45 25.51	16 1.70 6.75 29.63	4 0.43 1.69 16.00	5 0.53 2.11 16.13	237 25.19
Quite a bit of Impact	311 33.05 89.37 37.42	19 2.02 5.46 35.19	9 0.96 2.59 36.00	9 0.96 2.59 29.03	348 36.98
Great Impact	56 5.95 86.15 6.74	5 0.53 7.69 9.26	2 0.21 3.08 8.00	2 0.21 3.08 6.45	65 6.91
missing	15 1.59 83.33 1.81	0 0.00 0.00 0.00	1 0.11 5.56 4.00	2 0.21 11.11 6.45	18 1.91
Total	831 88.31	54 5.74	25 2.66	31 3.29	941 100.00

Statistics for Table of Q15A6 by Q22

Statistic	DF	Value	Prob
Chi-Square	18	18.6985	0.4106
Likelihood Ratio Chi-Square	18	17.7864	0.4698
Mantel-Haenszel Chi-Square	1	0.7813	0.3767
Phi Coefficient		0.1410	
Contingency Coefficient		0.1396	
Cramer's V		0.0814	
WARNING: 43% of the cells have expected counts less than 5. Chi-Square may not be a valid test.			

Sample Size = 941

Frequency
Percent
Row Pct
Col Pct

Table of Q15A7 by Q22

Q15A7(Development of more efficient cropping equipment)	Q22(Principal Occupation)				
	Farming or Ranching	Employment in off-farm job	Own/operate a non-farm business	Retired	Total
Not applicable (No change)	171 18.17 85.50 20.58	9 0.96 4.50 16.67	8 0.85 4.00 32.00	12 1.28 6.00 38.71	200 21.25
No Impact	30 3.19 90.91 3.61	3 0.32 9.09 5.56	0 0.00 0.00 0.00	0 0.00 0.00 0.00	33 3.51
Slight Impact	72 7.65 82.76 8.66	10 1.06 11.49 18.52	1 0.11 1.15 4.00	4 0.43 4.60 12.90	87 9.25
Some Impact	234 24.87 90.70 28.16	13 1.38 5.04 24.07	8 0.85 3.10 32.00	3 0.32 1.16 9.68	258 27.42
Quite a bit of Impact	252 26.78 89.68 30.32	17 1.81 6.05 31.48	5 0.53 1.78 20.00	7 0.74 2.49 22.58	281 29.86
Great Impact	54 5.74 88.52 6.50	2 0.21 3.28 3.70	2 0.21 3.28 8.00	3 0.32 4.92 9.68	61 6.48
missing	18 1.91 85.71 2.17	0 0.00 0.00 0.00	1 0.11 4.76 4.00	2 0.21 9.52 6.45	21 2.23
Total	831 88.31	54 5.74	25 2.66	31 3.29	941 100.00

Statistics for Table of Q15A7 by Q22

Statistic	DF	Value	Prob
Chi-Square	18	26.5438	0.0880
Likelihood Ratio Chi-Square	18	28.0982	0.0606
Mantel-Haenszel Chi-Square	1	1.1887	0.2756
Phi Coefficient		0.1680	
Contingency Coefficient		0.1656	
Cramer's V		0.0970	
WARNING: 43% of the cells have expected counts less than 5. Chi-Square may not be a valid test.			

Sample Size = 941

Frequency
Percent
Row Pct
Col Pct

Table of Q15A8 by Q22

Q15A8(Labor availability problems)	Q22(Principal Occupation)				
	Farming or Ranching	Employment in off-farm job	Own/operate a non-farm business	Retired	Total
Not applicable (No change)	171 18.17 85.50 20.58	9 0.96 4.50 16.67	8 0.85 4.00 32.00	12 1.28 6.00 38.71	200 21.25
No Impact	142 15.09 86.06 17.09	14 1.49 8.48 25.93	4 0.43 2.42 16.00	5 0.53 3.03 16.13	165 17.53
Slight Impact	187 19.87 91.22 22.50	10 1.06 4.88 18.52	6 0.64 2.93 24.00	2 0.21 0.98 6.45	205 21.79
Some Impact	199 21.15 87.28 23.95	15 1.59 6.58 27.78	5 0.53 2.19 20.00	9 0.96 3.95 29.03	228 24.23
Quite a bit of Impact	87 9.25 93.55 10.47	4 0.43 4.30 7.41	1 0.11 1.08 4.00	1 0.11 1.08 3.23	93 9.88
Great Impact	28 2.98 93.33 3.37	2 0.21 6.67 3.70	0 0.00 0.00 0.00	0 0.00 0.00 0.00	30 3.19
missing	17 1.81 85.00 2.05	0 0.00 0.00 0.00	1 0.11 5.00 4.00	2 0.21 10.00 6.45	20 2.13
Total	831 88.31	54 5.74	25 2.66	31 3.29	941 100.00

Statistics for Table of Q15A8 by Q22

Statistic	DF	Value	Prob
Chi-Square	18	22.6196	0.2056
Likelihood Ratio Chi-Square	18	25.2643	0.1178
Mantel-Haenszel Chi-Square	1	1.6196	0.2031
Phi Coefficient		0.1550	
Contingency Coefficient		0.1532	
Cramer's V		0.0895	
WARNING: 32% of the cells have expected counts less than 5. Chi-Square may not be a valid test.			

Sample Size = 941

Frequency
Percent
Row Pct
Col Pct

Table of Q15A9 by Q22

Q15A9(Improving wildlife habitat)	Q22(Principal Occupation)				
	Farming or Ranching	Employment in off-farm job	Own/operate a non-farm business	Retired	Total
Not applicable (No change)	171 18.17 85.50 20.58	9 0.96 4.50 16.67	8 0.85 4.00 32.00	12 1.28 6.00 38.71	200 21.25
No Impact	236 25.08 87.73 28.40	21 2.23 7.81 38.89	6 0.64 2.23 24.00	6 0.64 2.23 19.35	269 28.59
Slight Impact	232 24.65 90.63 27.92	13 1.38 5.08 24.07	5 0.53 1.95 20.00	6 0.64 2.34 19.35	256 27.21
Some Impact	141 14.98 91.56 16.97	8 0.85 5.19 14.81	3 0.32 1.95 12.00	2 0.21 1.30 6.45	154 16.37
Quite a bit of Impact	19 2.02 79.17 2.29	2 0.21 8.33 3.70	2 0.21 8.33 8.00	1 0.11 4.17 3.23	24 2.55
Great Impact	12 1.28 85.71 1.44	1 0.11 7.14 1.85	0 0.00 0.00 0.00	1 0.11 7.14 3.23	14 1.49
missing	20 2.13 83.33 2.41	0 0.00 0.00 0.00	1 0.11 4.17 4.00	3 0.32 12.50 9.68	24 2.55
Total	831 88.31	54 5.74	25 2.66	31 3.29	941 100.00

Statistics for Table of Q15A9 by Q22

Statistic	DF	Value	Prob
Chi-Square	18	25.9443	0.1010
Likelihood Ratio Chi-Square	18	23.4514	0.1738
Mantel-Haenszel Chi-Square	1	0.0573	0.8108
Phi Coefficient		0.1660	
Contingency Coefficient		0.1638	
Cramer's V		0.0959	
WARNING: 36% of the cells have expected counts less than 5. Chi-Square may not be a valid test.			

Sample Size = 941

Frequency
Percent
Row Pct
Col Pct

Table of Q15A10 by Q22

Q15A10(Changing weather /climate patterns)	Q22(Principal Occupation)				
	Farming or Ranching	Employment in off-farm job	Own/operate a non-farm business	Retired	Total
Not applicable (No change)	171 18.17 85.50 20.58	9 0.96 4.50 16.67	8 0.85 4.00 32.00	12 1.28 6.00 38.71	200 21.25
No Impact	122 12.96 84.72 14.68	14 1.49 9.72 25.93	3 0.32 2.08 12.00	5 0.53 3.47 16.13	144 15.30
Slight Impact	134 14.24 91.78 16.13	5 0.53 3.42 9.26	4 0.43 2.74 16.00	3 0.32 2.05 9.68	146 15.52
Some Impact	234 24.87 91.41 28.16	12 1.28 4.69 22.22	6 0.64 2.34 24.00	4 0.43 1.56 12.90	256 27.21
Quite a bit of Impact	104 11.05 85.95 12.52	10 1.06 8.26 18.52	3 0.32 2.48 12.00	4 0.43 3.31 12.90	121 12.86
Great Impact	49 5.21 90.74 5.90	4 0.43 7.41 7.41	0 0.00 0.00 0.00	1 0.11 1.85 3.23	54 5.74
missing	17 1.81 85.00 2.05	0 0.00 0.00 0.00	1 0.11 5.00 4.00	2 0.21 10.00 6.45	20 2.13
Total	831 88.31	54 5.74	25 2.66	31 3.29	941 100.00

Statistics for Table of Q15A10 by Q22

Statistic	DF	Value	Prob
Chi-Square	18	24.1677	0.1496
Likelihood Ratio Chi-Square	18	24.8202	0.1300
Mantel-Haenszel Chi-Square	1	1.3476	0.2457
Phi Coefficient		0.1603	
Contingency Coefficient		0.1582	
Cramer's V		0.0925	
WARNING: 43% of the cells have expected counts less			

than 5. Chi-Square may not be a valid test.

Sample Size = 941

The FREQ Procedure

Frequency
Percent
Row Pct
Col Pct

Table of Q15A1 by Q23

Q15A1(Changing crop prices)	Q23(Gross farm/ranch sales)					
	From $100,000 up to $249,999	From $250,000 up to $499,999	From $500,000 up to $999,999	$1 million or more	Less than $99,999	Total
Not applicable (No change)	56 6.21 29.32 25.34	39 4.32 20.42 16.12	33 3.66 17.28 18.03	22 2.44 11.52 20.18	41 4.55 21.47 27.89	191 21.18
No Impact	1 0.11 16.67 0.45	2 0.22 33.33 0.83	0 0.00 0.00 0.00	0 0.00 0.00 0.00	3 0.33 50.00 2.04	6 0.67
Slight Impact	5 0.55 22.73 2.26	4 0.44 18.18 1.65	5 0.55 22.73 2.73	5 0.55 22.73 4.59	3 0.33 13.64 2.04	22 2.44
Some Impact	29 3.22 23.97 13.12	40 4.43 33.06 16.53	24 2.66 19.83 13.11	11 1.22 9.09 10.09	17 1.88 14.05 11.56	121 13.41
Quite a bit of Impact	71 7.87 23.13 32.13	91 10.09 29.64 37.60	68 7.54 22.15 37.16	35 3.88 11.40 32.11	42 4.66 13.68 28.57	307 34.04
Great Impact	57 6.32 23.46 25.79	64 7.10 26.34 26.45	51 5.65 20.99 27.87	35 3.88 14.40 32.11	36 3.99 14.81 24.49	243 26.94
missing	2 0.22 16.67 0.90	2 0.22 16.67 0.83	2 0.22 16.67 1.09	1 0.11 8.33 0.92	5 0.55 41.67 3.40	12 1.33
Total	221 24.50	242 26.83	183 20.29	109 12.08	147 16.30	902 100.00

Frequency Missing = 39

Statistics for Table of Q15A1 by Q23

Statistic	DF	Value	Prob
Chi-Square	24	31.4425	0.1414
Likelihood Ratio Chi-Square	24	30.1285	0.1805
Mantel-Haenszel Chi-Square	1	0.7836	0.3760
Phi Coefficient		0.1867	
Contingency Coefficient		0.1835	
Cramer's V		0.0934	

WARNING: 37% of the cells have expected counts less than 5. Chi-Square may not be a valid test.

Effective Sample Size = 902
Frequency Missing = 39

Frequency
Percent
Row Pct
Col Pct

Table of Q15A2 by Q23

Q15A2(Changing prices in input markets (seed, fertilizer, chemicals, etc.))	Q23(Gross farm/ranch sales)					
	From $100,000 up to $249,999	From $250,000 up to $499,999	From $500,000 up to $999,999	$1 million or more	Less than $99,999	Total
Not applicable (No change)	56 6.21 29.32 25.34	39 4.32 20.42 16.12	33 3.66 17.28 18.03	22 2.44 11.52 20.18	41 4.55 21.47 27.89	191 21.18
No Impact	2 0.22 8.00 0.90	10 1.11 40.00 4.13	3 0.33 12.00 1.64	4 0.44 16.00 3.67	6 0.67 24.00 4.08	25 2.77
Slight Impact	16 1.77 21.05 7.24	19 2.11 25.00 7.85	16 1.77 21.05 8.74	16 1.77 21.05 14.68	9 1.00 11.84 6.12	76 8.43
Some Impact	74 8.20 27.41 33.48	83 9.20 30.74 34.30	57 6.32 21.11 31.15	26 2.88 9.63 23.85	30 3.33 11.11 20.41	270 29.93
Quite a bit of Impact	51 5.65 22.67 23.08	56 6.21 24.89 23.14	47 5.21 20.89 25.68	31 3.44 13.78 28.44	40 4.43 17.78 27.21	225 24.94
Great Impact	18 2.00 18.37 8.14	30 3.33 30.61 12.40	25 2.77 25.51 13.66	9 1.00 9.18 8.26	16 1.77 16.33 10.88	98 10.86
missing	4 0.44 23.53 1.81	5 0.55 29.41 2.07	2 0.22 11.76 1.09	1 0.11 5.88 0.92	5 0.55 29.41 3.40	17 1.88
Total	221 24.50	242 26.83	183 20.29	109 12.08	147 16.30	902 100.00

Frequency Missing = 39

Statistics for Table of Q15A2 by Q23

Statistic	DF	Value	Prob
Chi-Square	24	38.5926	0.0301
Likelihood Ratio Chi-Square	24	38.9989	0.0273
Mantel-Haenszel Chi-Square	1	0.2074	0.6488
Phi Coefficient		0.2068	
Contingency Coefficient		0.2026	
Cramer's V		0.1034	

Effective Sample Size = 902
Frequency Missing = 39

Frequency
Percent
Row Pct
Col Pct

Table of Q15A3 by Q23

Q15A3(Availability of crop and revenue insurance policies)	Q23(Gross farm/ranch sales)					
	From $100,000 up to $249,999	From $250,000 up to $499,999	From $500,000 up to $999,999	$1 million or more	Less than $99,999	Total
Not applicable (No change)	56 6.21 29.32 25.34	39 4.32 20.42 16.12	33 3.66 17.28 18.03	22 2.44 11.52 20.18	41 4.55 21.47 27.89	191 21.18
No Impact	10 1.11 15.38 4.52	21 2.33 32.31 8.68	12 1.33 18.46 6.56	6 0.67 9.23 5.50	16 1.77 24.62 10.88	65 7.21
Slight Impact	35 3.88 29.66 15.84	33 3.66 27.97 13.64	19 2.11 16.10 10.38	12 1.33 10.17 11.01	19 2.11 16.10 12.93	118 13.08
Some Impact	66 7.32 26.72 29.86	72 7.98 29.15 29.75	45 4.99 18.22 24.59	29 3.22 11.74 26.61	35 3.88 14.17 23.81	247 27.38
Quite a bit of Impact	32 3.55 17.78 14.48	50 5.54 27.78 20.66	55 6.10 30.56 30.05	21 2.33 11.67 19.27	22 2.44 12.22 14.97	180 19.96
Great Impact	17 1.88 20.48 7.69	23 2.55 27.71 9.50	17 1.88 20.48 9.29	18 2.00 21.69 16.51	8 0.89 9.64 5.44	83 9.20
missing	5 0.55 27.78 2.26	4 0.44 22.22 1.65	2 0.22 11.11 1.09	1 0.11 5.56 0.92	6 0.67 33.33 4.08	18 2.00
Total	221 24.50	242 26.83	183 20.29	109 12.08	147 16.30	902 100.00

Frequency Missing = 39

Statistics for Table of Q15A3 by Q23

Statistic	DF	Value	Prob
Chi-Square	24	48.5171	0.0022
Likelihood Ratio Chi-Square	24	46.4596	0.0039
Mantel-Haenszel Chi-Square	1	1.6520	0.1987
Phi Coefficient		0.2319	
Contingency Coefficient		0.2259	
Cramer's V		0.1160	

Effective Sample Size = 902
Frequency Missing = 39

Frequency
Percent
Row Pct
Col Pct

Table of Q15A4 by Q23

Q15A4(Availability of drought-tolerant seed)	Q23(Gross farm/ranch sales)					
	From $100,000 up to $249,999	From $250,000 up to $499,999	From $500,000 up to $999,999	$1 million or more	Less than $99,999	Total
Not applicable (No change)	56 6.21 29.32 25.34	39 4.32 20.42 16.12	33 3.66 17.28 18.03	22 2.44 11.52 20.18	41 4.55 21.47 27.89	191 21.18
No Impact	19 2.11 16.96 8.60	31 3.44 27.68 12.81	24 2.66 21.43 13.11	17 1.88 15.18 15.60	21 2.33 18.75 14.29	112 12.42
Slight Impact	50 5.54 26.88 22.62	51 5.65 27.42 21.07	48 5.32 25.81 26.23	22 2.44 11.83 20.18	15 1.66 8.06 10.20	186 20.62
Some Impact	63 6.98 24.61 28.51	72 7.98 28.13 29.75	45 4.99 17.58 24.59	30 3.33 11.72 27.52	46 5.10 17.97 31.29	256 28.38
Quite a bit of Impact	24 2.66 22.02 10.86	35 3.88 32.11 14.46	23 2.55 21.10 12.57	12 1.33 11.01 11.01	15 1.66 13.76 10.20	109 12.08
Great Impact	3 0.33 10.00 1.36	10 1.11 33.33 4.13	8 0.89 26.67 4.37	5 0.55 16.67 4.59	4 0.44 13.33 2.72	30 3.33
missing	6 0.67 33.33 2.71	4 0.44 22.22 1.65	2 0.22 11.11 1.09	1 0.11 5.56 0.92	5 0.55 27.78 3.40	18 2.00
Total	221 24.50	242 26.83	183 20.29	109 12.08	147 16.30	902 100.00

Frequency Missing = 39

Statistics for Table of Q15A4 by Q23

Statistic	DF	Value	Prob
Chi-Square	24	35.1795	0.0658
Likelihood Ratio Chi-Square	24	37.4883	0.0391
Mantel-Haenszel Chi-Square	1	0.3829	0.5360
Phi Coefficient		0.1975	
Contingency Coefficient		0.1937	
Cramer's V		0.0987	

Effective Sample Size = 902
Frequency Missing = 39

Frequency
Percent
Row Pct
Col Pct

Table of Q15A5 by Q23

Q15A5(Developments in pest management practices, including pest management seed traits)	Q23(Gross farm/ranch sales)					
	From $100,000 up to $249,999	From $250,000 up to $499,999	From $500,000 up to $999,999	$1 million or more	Less than $99,999	Total
Not applicable (No change)	56 6.21 29.32 25.34	39 4.32 20.42 16.12	33 3.66 17.28 18.03	22 2.44 11.52 20.18	41 4.55 21.47 27.89	191 21.18
No Impact	9 1.00 23.08 4.07	7 0.78 17.95 2.89	8 0.89 20.51 4.37	6 0.67 15.38 5.50	9 1.00 23.08 6.12	39 4.32
Slight Impact	30 3.33 20.27 13.57	38 4.21 25.68 15.70	33 3.66 22.30 18.03	19 2.11 12.84 17.43	28 3.10 18.92 19.05	148 16.41
Some Impact	72 7.98 24.41 32.58	86 9.53 29.15 35.54	63 6.98 21.36 34.43	32 3.55 10.85 29.36	42 4.66 14.24 28.57	295 32.71
Quite a bit of Impact	44 4.88 25.14 19.91	54 5.99 30.86 22.31	34 3.77 19.43 18.58	25 2.77 14.29 22.94	18 2.00 10.29 12.24	175 19.40
Great Impact	4 0.44 11.43 1.81	14 1.55 40.00 5.79	10 1.11 28.57 5.46	4 0.44 11.43 3.67	3 0.33 8.57 2.04	35 3.88
missing	6 0.67 31.58 2.71	4 0.44 21.05 1.65	2 0.22 10.53 1.09	1 0.11 5.26 0.92	6 0.67 31.58 4.08	19 2.11
Total	221 24.50	242 26.83	183 20.29	109 12.08	147 16.30	902 100.00

Frequency Missing = 39

Statistics for Table of Q15A5 by Q23

Statistic	DF	Value	Prob
Chi-Square	24	33.3335	0.0972
Likelihood Ratio Chi-Square	24	34.0392	0.0840
Mantel-Haenszel Chi-Square	1	3.0767	0.0794
Phi Coefficient		0.1922	
Contingency Coefficient		0.1888	
Cramer's V		0.0961	

Effective Sample Size = 902
Frequency Missing = 39

Frequency
Percent
Row Pct
Col Pct

Table of Q15A6 by Q23

Q15A6(Improved crop yields (other than seed related traits))	Q23(Gross farm/ranch sales)					
	From $100,000 up to $249,999	From $250,000 up to $499,999	From $500,000 up to $999,999	$1 million or more	Less than $99,999	Total
Not applicable (No change)	56 6.21 29.32 25.34	39 4.32 20.42 16.12	33 3.66 17.28 18.03	22 2.44 11.52 20.18	41 4.55 21.47 27.89	191 21.18
No Impact	2 0.22 16.67 0.90	2 0.22 16.67 0.83	3 0.33 25.00 1.64	1 0.11 8.33 0.92	4 0.44 33.33 2.72	12 1.33
Slight Impact	17 1.88 29.31 7.69	13 1.44 22.41 5.37	10 1.11 17.24 5.46	7 0.78 12.07 6.42	11 1.22 18.97 7.48	58 6.43
Some Impact	54 5.99 23.58 24.43	70 7.76 30.57 28.93	53 5.88 23.14 28.96	19 2.11 8.30 17.43	33 3.66 14.41 22.45	229 25.39
Quite a bit of Impact	72 7.98 21.49 32.58	96 10.64 28.66 39.67	67 7.43 20.00 36.61	54 5.99 16.12 49.54	46 5.10 13.73 31.29	335 37.14
Great Impact	16 1.77 26.23 7.24	18 2.00 29.51 7.44	15 1.66 24.59 8.20	5 0.55 8.20 4.59	7 0.78 11.48 4.76	61 6.76
missing	4 0.44 25.00 1.81	4 0.44 25.00 1.65	2 0.22 12.50 1.09	1 0.11 6.25 0.92	5 0.55 31.25 3.40	16 1.77
Total	221 24.50	242 26.83	183 20.29	109 12.08	147 16.30	902 100.00

Frequency Missing = 39

Frequency Missing = 39

Statistics for Table of Q15A6 by Q23

Statistic	DF	Value	Prob
Chi-Square	24	31.9480	0.1283
Likelihood Ratio Chi-Square	24	31.2976	0.1454
Mantel-Haenszel Chi-Square	1	1.7516	0.1857
Phi Coefficient		0.1882	
Contingency Coefficient		0.1850	
Cramer's V		0.0941	
WARNING: 29% of the cells have expected counts less than 5. Chi-Square may not be a valid test.			

Effective Sample Size = 902
Frequency Missing = 39

Frequency
Percent
Row Pct
Col Pct

Table of Q15A7 by Q23

Q15A7(Development of more efficient cropping equipment)	Q23(Gross farm/ranch sales)					
	From $100,000 up to $249,999	From $250,000 up to $499,999	From $500,000 up to $999,999	$1 million or more	Less than $99,999	Total
Not applicable (No change)	56 6.21 29.32 25.34	39 4.32 20.42 16.12	33 3.66 17.28 18.03	22 2.44 11.52 20.18	41 4.55 21.47 27.89	191 21.18
No Impact	5 0.55 15.63 2.26	11 1.22 34.38 4.55	3 0.33 9.38 1.64	7 0.78 21.88 6.42	6 0.67 18.75 4.08	32 3.55
Slight Impact	32 3.55 38.10 14.48	24 2.66 28.57 9.92	12 1.33 14.29 6.56	6 0.67 7.14 5.50	10 1.11 11.90 6.80	84 9.31
Some Impact	50 5.54 20.08 22.62	77 8.54 30.92 31.82	55 6.10 22.09 30.05	26 2.88 10.44 23.85	41 4.55 16.47 27.89	249 27.61
Quite a bit of Impact	63 6.98 23.68 28.51	65 7.21 24.44 26.86	59 6.54 22.18 32.24	42 4.66 15.79 38.53	37 4.10 13.91 25.17	266 29.49
Great Impact	11 1.22 18.03 4.98	21 2.33 34.43 8.68	18 2.00 29.51 9.84	5 0.55 8.20 4.59	6 0.67 9.84 4.08	61 6.76
missing	4 0.44 21.05 1.81	5 0.55 26.32 2.07	3 0.33 15.79 1.64	1 0.11 5.26 0.92	6 0.67 31.58 4.08	19 2.11
Total	221 24.50	242 26.83	183 20.29	109 12.08	147 16.30	902 100.00

Frequency Missing = 39

Statistics for Table of Q15A7 by Q23

Statistic	DF	Value	Prob
Chi-Square	24	46.1628	0.0042
Likelihood Ratio Chi-Square	24	45.3174	0.0053
Mantel-Haenszel Chi-Square	1	0.4305	0.5117
Phi Coefficient		0.2262	
Contingency Coefficient		0.2207	
Cramer's V		0.1131	

Effective Sample Size = 902
Frequency Missing = 39

Frequency
Percent
Row Pct
Col Pct

Table of Q15A8 by Q23

Q15A8(Labor availability problems)	Q23(Gross farm/ranch sales)					
	From $100,000 up to $249,999	From $250,000 up to $499,999	From $500,000 up to $999,999	$1 million or more	Less than $99,999	Total
Not applicable (No change)	56 6.21 29.32 25.34	39 4.32 20.42 16.12	33 3.66 17.28 18.03	22 2.44 11.52 20.18	41 4.55 21.47 27.89	191 21.18
No Impact	39 4.32 24.53 17.65	47 5.21 29.56 19.42	24 2.66 15.09 13.11	16 1.77 10.06 14.68	33 3.66 20.75 22.45	159 17.63
Slight Impact	51 5.65 26.02 23.08	56 6.21 28.57 23.14	44 4.88 22.45 24.04	19 2.11 9.69 17.43	26 2.88 13.27 17.69	196 21.73
Some Impact	42 4.66 19.18 19.00	73 8.09 33.33 30.17	41 4.55 18.72 22.40	32 3.55 14.61 29.36	31 3.44 14.16 21.09	219 24.28
Quite a bit of Impact	23 2.55 25.00 10.41	21 2.33 22.83 8.68	28 3.10 30.43 15.30	13 1.44 14.13 11.93	7 0.78 7.61 4.76	92 10.20
Great Impact	5 0.55 18.52 2.26	2 0.22 7.41 0.83	11 1.22 40.74 6.01	6 0.67 22.22 5.50	3 0.33 11.11 2.04	27 2.99
missing	5 0.55	4 0.44	2 0.22	1 0.11	6 0.67	18 2.00

	27.78 2.26	22.22 1.65	11.11 1.09	5.56 0.92	33.33 4.08	
Total	221 24.50	242 26.83	183 20.29	109 12.08	147 16.30	902 100.00
Frequency Missing = 39						

Statistics for Table of Q15A8 by Q23

Statistic	DF	Value	Prob
Chi-Square	24	51.8334	0.0008
Likelihood Ratio Chi-Square	24	51.7739	0.0008
Mantel-Haenszel Chi-Square	1	0.8502	0.3565
Phi Coefficient		0.2397	
Contingency Coefficient		0.2331	
Cramer's V		0.1199	

Effective Sample Size = 902
Frequency Missing = 39

Frequency
Percent
Row Pct
Col Pct

Table of Q15A9 by Q23

Q15A9(Improving wildlife habitat)	Q23(Gross farm/ranch sales)					
	From $100,000 up to $249,999	From $250,000 up to $499,999	From $500,000 up to $999,999	$1 million or more	Less than $99,999	Total
Not applicable (No change)	56 6.21 29.32 25.34	39 4.32 20.42 16.12	33 3.66 17.28 18.03	22 2.44 11.52 20.18	41 4.55 21.47 27.89	191 21.18
No Impact	49 5.43 19.07 22.17	72 7.98 28.02 29.75	64 7.10 24.90 34.97	31 3.44 12.06 28.44	41 4.55 15.95 27.89	257 28.49
Slight Impact	62 6.87 25.10 28.05	77 8.54 31.17 31.82	41 4.55 16.60 22.40	34 3.77 13.77 31.19	33 3.66 13.36 22.45	247 27.38
Some Impact	41 4.55 27.15 18.55	37 4.10 24.50 15.29	33 3.66 21.85 18.03	19 2.11 12.58 17.43	21 2.33 13.91 14.29	151 16.74
Quite a bit of Impact	5 0.55 22.73 2.26	9 1.00 40.91 3.72	4 0.44 18.18 2.19	2 0.22 9.09 1.83	2 0.22 9.09 1.36	22 2.44
Great Impact	2 0.22 16.67 0.90	3 0.33 25.00 1.24	5 0.55 41.67 2.73	0 0.00 0.00 0.00	2 0.22 16.67 1.36	12 1.33
missing	6 0.67 27.27 2.71	5 0.55 22.73 2.07	3 0.33 13.64 1.64	1 0.11 4.55 0.92	7 0.78 31.82 4.76	22 2.44
Total	221 24.50	242 26.83	183 20.29	109 12.08	147 16.30	902 100.00
Frequency Missing = 39						

Statistics for Table of Q15A9 by Q23

Statistic	DF	Value	Prob
Chi-Square	24	33.5255	0.0935
Likelihood Ratio Chi-Square	24	34.0751	0.0833
Mantel-Haenszel Chi-Square	1	0.0861	0.7692
Phi Coefficient		0.1928	
Contingency Coefficient		0.1893	
Cramer's V		0.0964	
WARNING: 31% of the cells have expected counts less than 5. Chi-Square may not be a valid test.			

Effective Sample Size = 902
Frequency Missing = 39

Frequency
Percent
Row Pct
Col Pct

Table of Q15A10 by Q23

Q15A10(Changing weather /climate patterns)	Q23(Gross farm/ranch sales)					
	From $100,000 up to $249,999	From $250,000 up to $499,999	From $500,000 up to $999,999	$1 million or more	Less than $99,999	Total
Not applicable (No change)	56 6.21 29.32 25.34	39 4.32 20.42 16.12	33 3.66 17.28 18.03	22 2.44 11.52 20.18	41 4.55 21.47 27.89	191 21.18
No Impact	32 3.55 23.19 14.48	41 4.55 29.71 16.94	21 2.33 15.22 11.48	21 2.33 15.22 19.27	23 2.55 16.67 15.65	138 15.30
Slight Impact	34 3.77 24.29 15.38	36 3.99 25.71 14.88	33 3.66 23.57 18.03	17 1.88 12.14 15.60	20 2.22 14.29 13.61	140 15.52
Some Impact	59 6.54 23.79 26.70	78 8.65 31.45 32.23	56 6.21 22.58 30.60	28 3.10 11.29 25.69	27 2.99 10.89 18.37	248 27.49
Quite a bit of Impact	21 2.33 18.10 9.50	33 3.66 28.45 13.64	25 2.77 21.55 13.66	15 1.66 12.93 13.76	22 2.44 18.97 14.97	116 12.86
Great Impact	14 1.55	11 1.22	12 1.33	5 0.55	9 1.00	51 5.65

	27.45 6.33	21.57 4.55	23.53 6.56	9.80 4.59	17.65 6.12	
missing	5 0.55 27.78 2.26	4 0.44 22.22 1.65	3 0.33 16.67 1.64	1 0.11 5.56 0.92	5 0.55 27.78 3.40	18 2.00
Total	221 24.50	242 26.83	183 20.29	109 12.08	147 16.30	902 100.00
Frequency Missing = 39						

Statistics for Table of Q15A10 by Q23

Statistic	DF	Value	Prob
Chi-Square	24	26.9813	0.3053
Likelihood Ratio Chi-Square	24	27.5313	0.2803
Mantel-Haenszel Chi-Square	1	0.1521	0.6966
Phi Coefficient		0.1730	
Contingency Coefficient		0.1704	
Cramer's V		0.0865	

Effective Sample Size = 902
Frequency Missing = 39

The FREQ Procedure

Frequency
Percent
Row Pct
Col Pct

Table of Q15A1 by Q1

Q15A1(Changing crop prices)	Q1(Years as a farm opertor)				
	less than 10 years as a farm operator	10 to 10 years as a farm operator	20 to 29 years as a farm operator	30 years or more as a farm operator	Total
Not applicable (No change)	5 0.61 2.92 8.62	17 2.09 9.94 17.53	19 2.33 11.11 14.50	130 15.95 76.02 24.57	171 20.98
No Impact	0 0.00 0.00 0.00	1 0.12 16.67 1.03	1 0.12 16.67 0.76	4 0.49 66.67 0.76	6 0.74
Slight Impact	1 0.12 5.00 1.72	0 0.00 0.00 0.00	2 0.25 10.00 1.53	17 2.09 85.00 3.21	20 2.45
Some Impact	7 0.86 5.93 12.07	15 1.84 12.71 15.46	19 2.33 16.10 14.50	77 9.45 65.25 14.56	118 14.48
Quite a bit of Impact	25 3.07 9.16 43.10	33 4.05 12.09 34.02	51 6.26 18.68 38.93	164 20.12 60.07 31.00	273 33.50
Great Impact	19 2.33 8.88 32.76	31 3.80 14.49 31.96	37 4.54 17.29 28.24	127 15.58 59.35 24.01	214 26.26
missing	1 0.12 7.69 1.72	0 0.00 0.00 0.00	2 0.25 15.38 1.53	10 1.23 76.92 1.89	13 1.60
Total	58 7.12	97 11.90	131 16.07	529 64.91	815 100.00
Frequency Missing = 126					

Statistics for Table of Q15A1 by Q1

Statistic	DF	Value	Prob
Chi-Square	18	24.6467	0.1350
Likelihood Ratio Chi-Square	18	30.0747	0.0367
Mantel-Haenszel Chi-Square	1	10.9796	0.0009
Phi Coefficient		0.1739	
Contingency Coefficient		0.1713	
Cramer's V		0.1004	
WARNING: 36% of the cells have expected counts less than 5. Chi-Square may not be a valid test.			

Effective Sample Size = 815
Frequency Missing = 126

WARNING: 13% of the data are missing.

Frequency
Percent
Row Pct
Col Pct

Table of Q15A2 by Q1

Q15A2(Changing prices in input markets (seed, fertilizer, chemicals, etc.))	Q1(Years as a farm opertor)				
	less than 10 years as a farm operator	10 to 10 years as a farm operator	20 to 29 years as a farm operator	30 years or more as a farm operator	Total
Not applicable (No change)	5 0.61 2.92 8.62	17 2.09 9.94 17.53	19 2.33 11.11 14.50	130 15.95 76.02 24.57	171 20.98
No Impact	0 0.00 0.00 0.00	4 0.49 16.00 4.12	3 0.37 12.00 2.29	18 2.21 72.00 3.40	25 3.07
Slight Impact	3 0.37 4.48	10 1.23 14.93	9 1.10 13.43	45 5.52 67.16	67 8.22

	5.17	10.31	6.87	8.51	
Some Impact	21 2.58 8.54 36.21	29 3.56 11.79 29.90	45 5.52 18.29 34.35	151 18.53 61.38 28.54	246 30.18
Quite a bit of Impact	21 2.58 10.50 36.21	29 3.56 14.50 29.90	40 4.91 20.00 30.53	110 13.50 55.00 20.79	200 24.54
Great Impact	7 0.86 8.05 12.07	7 0.86 8.05 7.22	12 1.47 13.79 9.16	61 7.48 70.11 11.53	87 10.67
missing	1 0.12 5.26 1.72	1 0.12 5.26 1.03	3 0.37 15.79 2.29	14 1.72 73.68 2.65	19 2.33
Total	58 7.12	97 11.90	131 16.07	529 64.91	815 100.00
Frequency Missing = 126					

Statistics for Table of Q15A2 by Q1

Statistic	DF	Value	Prob
Chi-Square	18	28.8260	0.0505
Likelihood Ratio Chi-Square	18	31.8708	0.0228
Mantel-Haenszel Chi-Square	1	6.0259	0.0141
Phi Coefficient		0.1881	
Contingency Coefficient		0.1848	
Cramer's V		0.1086	
WARNING: 25% of the cells have expected counts less than 5. Chi-Square may not be a valid test.			

Effective Sample Size = 815
Frequency Missing = 126

WARNING: 13% of the data are missing.

Frequency
Percent
Row Pct
Col Pct

Table of Q15A3 by Q1

Q15A3(Availability of crop and revenue insurance policies)	Q1(Years as a farm opertor)				
	less than 10 years as a farm operator	10 to 10 years as a farm operator	20 to 29 years as a farm operator	30 years or more as a farm operator	Total
Not applicable (No change)	5 0.61 2.92 8.62	17 2.09 9.94 17.53	19 2.33 11.11 14.50	130 15.95 76.02 24.57	171 20.98
No Impact	5 0.61 8.20 8.62	10 1.23 16.39 10.31	5 0.61 8.20 3.82	41 5.03 67.21 7.75	61 7.48
Slight Impact	12 1.47 11.43 20.69	11 1.35 10.48 11.34	28 3.44 26.67 21.37	54 6.63 51.43 10.21	105 12.88
Some Impact	14 1.72 6.14 24.14	27 3.31 11.84 27.84	38 4.66 16.67 29.01	149 18.28 65.35 28.17	228 27.98
Quite a bit of Impact	19 2.33 11.45 32.76	20 2.45 12.05 20.62	28 3.44 16.87 21.37	99 12.15 59.64 18.71	166 20.37
Great Impact	2 0.25 3.08 3.45	12 1.47 18.46 12.37	9 1.10 13.85 6.87	42 5.15 64.62 7.94	65 7.98
missing	1 0.12 5.26 1.72	0 0.00 0.00 0.00	4 0.49 21.05 3.05	14 1.72 73.68 2.65	19 2.33
Total	58 7.12	97 11.90	131 16.07	529 64.91	815 100.00
Frequency Missing = 126					

Statistics for Table of Q15A3 by Q1

Statistic	DF	Value	Prob
Chi-Square	18	39.8077	0.0022
Likelihood Ratio Chi-Square	18	41.8510	0.0012
Mantel-Haenszel Chi-Square	1	2.2938	0.1299
Phi Coefficient		0.2210	
Contingency Coefficient		0.2158	
Cramer's V		0.1276	

Effective Sample Size = 815
Frequency Missing = 126

WARNING: 13% of the data are missing.

Frequency
Percent
Row Pct
Col Pct

Table of Q15A4 by Q1

Q15A4(Availability of drought-tolerant seed)	Q1(Years as a farm opertor)				
	less than 10 years as a farm operator	10 to 10 years as a farm operator	20 to 29 years as a farm operator	30 years or more as a farm operator	Total
Not applicable (No change)	5 0.61	17 2.09	19 2.33	130 15.95	171 20.98

	2.92 8.62	9.94 17.53	11.11 14.50	76.02 24.57	
No Impact	7 0.86 6.60 12.07	19 2.33 17.92 19.59	20 2.45 18.87 15.27	60 7.36 56.60 11.34	106 13.01
Slight Impact	13 1.60 7.93 22.41	22 2.70 13.41 22.68	31 3.80 18.90 23.66	98 12.02 59.76 18.53	164 20.12
Some Impact	24 2.94 10.43 41.38	25 3.07 10.87 25.77	37 4.54 16.09 28.24	144 17.67 62.61 27.22	230 28.22
Quite a bit of Impact	7 0.86 6.93 12.07	13 1.60 12.87 13.40	19 2.33 18.81 14.50	62 7.61 61.39 11.72	101 12.39
Great Impact	1 0.12 4.00 1.72	1 0.12 4.00 1.03	2 0.25 8.00 1.53	21 2.58 84.00 3.97	25 3.07
missing	1 0.12 5.56 1.72	0 0.00 0.00 0.00	3 0.37 16.67 2.29	14 1.72 77.78 2.65	18 2.21
Total	58 7.12	97 11.90	131 16.07	529 64.91	815 100.00
Frequency Missing = 126					

Statistics for Table of Q15A4 by Q1

Statistic	DF	Value	Prob
Chi-Square	18	28.9535	0.0490
Likelihood Ratio Chi-Square	18	32.1875	0.0209
Mantel-Haenszel Chi-Square	1	0.2944	0.5874
Phi Coefficient		0.1885	
Contingency Coefficient		0.1852	
Cramer's V		0.1088	
WARNING: 21% of the cells have expected counts less than 5. Chi-Square may not be a valid test.			

Effective Sample Size = 815
Frequency Missing = 126

WARNING: 13% of the data are missing.

Frequency
Percent
Row Pct
Col Pct

Table of Q15A5 by Q1

Q15A5(Developments in pest management practices, including pest management seed traits)	Q1(Years as a farm opertor)				
	less than 10 years as a farm operator	10 to 10 years as a farm operator	20 to 29 years as a farm operator	30 years or more as a farm operator	Total
Not applicable (No change)	5 0.61 2.92 8.62	17 2.09 9.94 17.53	19 2.33 11.11 14.50	130 15.95 76.02 24.57	171 20.98
No Impact	4 0.49 10.81 6.90	7 0.86 18.92 7.22	7 0.86 18.92 5.34	19 2.33 51.35 3.59	37 4.54
Slight Impact	15 1.84 10.95 25.86	21 2.58 15.33 21.65	29 3.56 21.17 22.14	72 8.83 52.55 13.61	137 16.81
Some Impact	18 2.21 6.92 31.03	37 4.54 14.23 38.14	49 6.01 18.85 37.40	156 19.14 60.00 29.49	260 31.90
Quite a bit of Impact	14 1.72 8.75 24.14	15 1.84 9.38 15.46	21 2.58 13.13 16.03	110 13.50 68.75 20.79	160 19.63
Great Impact	1 0.12 3.33 1.72	0 0.00 0.00 0.00	3 0.37 10.00 2.29	26 3.19 86.67 4.91	30 3.68
missing	1 0.12 5.00 1.72	0 0.00 0.00 0.00	3 0.37 15.00 2.29	16 1.96 80.00 3.02	20 2.45
Total	58 7.12	97 11.90	131 16.07	529 64.91	815 100.00
Frequency Missing = 126					

Statistics for Table of Q15A5 by Q1

Statistic	DF	Value	Prob
Chi-Square	18	40.1042	0.0020
Likelihood Ratio Chi-Square	18	46.6840	0.0002
Mantel-Haenszel Chi-Square	1	0.0409	0.8396
Phi Coefficient		0.2218	
Contingency Coefficient		0.2166	
Cramer's V		0.1281	
WARNING: 29% of the cells have expected counts less than 5. Chi-Square may not be a valid test.			

Effective Sample Size = 815
Frequency Missing = 126

WARNING: 13% of the data are missing.

Frequency
Percent
Row Pct
Col Pct

Table of Q15A6 by Q1

Q15A6(Improved crop yields (other than seed related traits))	Q1(Years as a farm opertor)				
	less than 10 years as a farm operator	10 to 10 years as a farm operator	20 to 29 years as a farm operator	30 years or more as a farm operator	Total
Not applicable (No change)	5 0.61 2.92 8.62	17 2.09 9.94 17.53	19 2.33 11.11 14.50	130 15.95 76.02 24.57	171 20.98
No Impact	1 0.12 10.00 1.72	2 0.25 20.00 2.06	2 0.25 20.00 1.53	5 0.61 50.00 0.95	10 1.23
Slight Impact	4 0.49 7.55 6.90	8 0.98 15.09 8.25	13 1.60 24.53 9.92	28 3.44 52.83 5.29	53 6.50
Some Impact	19 2.33 9.36 32.76	35 4.29 17.24 36.08	29 3.56 14.29 22.14	120 14.72 59.11 22.68	203 24.91
Quite a bit of Impact	22 2.70 7.26 37.93	31 3.80 10.23 31.96	60 7.36 19.80 45.80	190 23.31 62.71 35.92	303 37.18
Great Impact	6 0.74 10.34 10.34	4 0.49 6.90 4.12	5 0.61 8.62 3.82	43 5.28 74.14 8.13	58 7.12
missing	1 0.12 5.88 1.72	0 0.00 0.00 0.00	3 0.37 17.65 2.29	13 1.60 76.47 2.46	17 2.09
Total	58 7.12	97 11.90	131 16.07	529 64.91	815 100.00

Frequency Missing = 126

Statistics for Table of Q15A6 by Q1

Statistic	DF	Value	Prob
Chi-Square	18	34.3626	0.0114
Likelihood Ratio Chi-Square	18	37.0695	0.0051
Mantel-Haenszel Chi-Square	1	1.5735	0.2097
Phi Coefficient		0.2053	
Contingency Coefficient		0.2011	
Cramer's V		0.1186	

WARNING: 29% of the cells have expected counts less than 5. Chi-Square may not be a valid test.

Effective Sample Size = 815
Frequency Missing = 126

WARNING: 13% of the data are missing.

Frequency
Percent
Row Pct
Col Pct

Table of Q15A7 by Q1

Q15A7(Development of more efficient cropping equipment)	Q1(Years as a farm opertor)				
	less than 10 years as a farm operator	10 to 10 years as a farm operator	20 to 29 years as a farm operator	30 years or more as a farm operator	Total
Not applicable (No change)	5 0.61 2.92 8.62	17 2.09 9.94 17.53	19 2.33 11.11 14.50	130 15.95 76.02 24.57	171 20.98
No Impact	1 0.12 3.70 1.72	5 0.61 18.52 5.15	3 0.37 11.11 2.29	18 2.21 66.67 3.40	27 3.31
Slight Impact	6 0.74 7.89 10.34	9 1.10 11.84 9.28	11 1.35 14.47 8.40	50 6.13 65.79 9.45	76 9.33
Some Impact	23 2.82 10.55 39.66	31 3.80 14.22 31.96	42 5.15 19.27 32.06	122 14.97 55.96 23.06	218 26.75
Quite a bit of Impact	17 2.09 6.80 29.31	32 3.93 12.80 32.99	48 5.89 19.20 36.64	153 18.77 61.20 28.92	250 30.67
Great Impact	5 0.61 9.43 8.62	3 0.37 5.66 3.09	5 0.61 9.43 3.82	40 4.91 75.47 7.56	53 6.50
missing	1 0.12 5.00 1.72	0 0.00 0.00 0.00	3 0.37 15.00 2.29	16 1.96 80.00 3.02	20 2.45
Total	58 7.12	97 11.90	131 16.07	529 64.91	815 100.00

Frequency Missing = 126

Statistics for Table of Q15A7 by Q1

Statistic	DF	Value	Prob

Chi-Square	18	31.3497	0.0262
Likelihood Ratio Chi-Square	18	35.1318	0.0091
Mantel-Haenszel Chi-Square	1	1.9026	0.1678
Phi Coefficient		0.1961	
Contingency Coefficient		0.1925	
Cramer's V		0.1132	
WARNING: 25% of the cells have expected counts less than 5. Chi-Square may not be a valid test.			

Effective Sample Size = 815
Frequency Missing = 126

WARNING: 13% of the data are missing.

Frequency
Percent
Row Pct
Col Pct

Table of Q15A8 by Q1

Q15A8(Labor availability problems)	Q1(Years as a farm opertor)				
	less than 10 years as a farm operator	10 to 10 years as a farm operator	20 to 29 years as a farm operator	30 years or more as a farm operator	Total
Not applicable (No change)	5 0.61 2.92 8.62	17 2.09 9.94 17.53	19 2.33 11.11 14.50	130 15.95 76.02 24.57	171 20.98
No Impact	13 1.60 9.09 22.41	13 1.60 9.09 13.40	21 2.58 14.69 16.03	96 11.78 67.13 18.15	143 17.55
Slight Impact	16 1.96 9.04 27.59	28 3.44 15.82 28.87	31 3.80 17.51 23.66	102 12.52 57.63 19.28	177 21.72
Some Impact	16 1.96 8.08 27.59	25 3.07 12.63 25.77	35 4.29 17.68 26.72	122 14.97 61.62 23.06	198 24.29
Quite a bit of Impact	6 0.74 7.14 10.34	11 1.35 13.10 11.34	19 2.33 22.62 14.50	48 5.89 57.14 9.07	84 10.31
Great Impact	1 0.12 4.35 1.72	3 0.37 13.04 3.09	3 0.37 13.04 2.29	16 1.96 69.57 3.02	23 2.82
missing	1 0.12 5.26 1.72	0 0.00 0.00 0.00	3 0.37 15.79 2.29	15 1.84 78.95 2.84	19 2.33
Total	58 7.12	97 11.90	131 16.07	529 64.91	815 100.00

Frequency Missing = 126

Statistics for Table of Q15A8 by Q1

Statistic	DF	Value	Prob
Chi-Square	18	25.0649	0.1231
Likelihood Ratio Chi-Square	18	28.2936	0.0577
Mantel-Haenszel Chi-Square	1	1.4026	0.2363
Phi Coefficient		0.1754	
Contingency Coefficient		0.1727	
Cramer's V		0.1012	
WARNING: 21% of the cells have expected counts less than 5. Chi-Square may not be a valid test.			

Effective Sample Size = 815
Frequency Missing = 126

WARNING: 13% of the data are missing.

Frequency
Percent
Row Pct
Col Pct

Table of Q15A9 by Q1

Q15A9(Improving wildlife habitat)	Q1(Years as a farm opertor)				
	less than 10 years as a farm operator	10 to 10 years as a farm operator	20 to 29 years as a farm operator	30 years or more as a farm operator	Total
Not applicable (No change)	5 0.61 2.92 8.62	17 2.09 9.94 17.53	19 2.33 11.11 14.50	130 15.95 76.02 24.57	171 20.98
No Impact	18 2.21 7.96 31.03	33 4.05 14.60 34.02	30 3.68 13.27 22.90	145 17.79 64.16 27.41	226 27.73
Slight Impact	20 2.45 8.81 34.48	31 3.80 13.66 31.96	45 5.52 19.82 34.35	131 16.07 57.71 24.76	227 27.85
Some Impact	12 1.47 8.82 20.69	13 1.60 9.56 13.40	26 3.19 19.12 19.85	85 10.43 62.50 16.07	136 16.69
Quite a bit of Impact	1 0.12 4.76 1.72	3 0.37 14.29 3.09	3 0.37 14.29 2.29	14 1.72 66.67 2.65	21 2.58
Great Impact	1 0.12 9.09 1.72	0 0.00 0.00 0.00	3 0.37 27.27 2.29	7 0.86 63.64 1.32	11 1.35
missing	1 0.12 4.35 1.72	0 0.00 0.00 0.00	5 0.61 21.74 3.82	17 2.09 73.91 3.21	23 2.82

Total	58 7.12	97 11.90	131 16.07	529 64.91	815 100.00
Frequency Missing = 126					

Statistics for Table of Q15A9 by Q1

Statistic	DF	Value	Prob
Chi-Square	18	27.0531	0.0780
Likelihood Ratio Chi-Square	18	32.1171	0.0213
Mantel-Haenszel Chi-Square	1	0.1918	0.6614
Phi Coefficient		0.1822	
Contingency Coefficient		0.1792	
Cramer's V		0.1052	
WARNING: 32% of the cells have expected counts less than 5. Chi-Square may not be a valid test.			

Effective Sample Size = 815
Frequency Missing = 126

WARNING: 13% of the data are missing.

Frequency
Percent
Row Pct
Col Pct

Table of Q15A10 by Q1

	Q1(Years as a farm opertor)				
Q15A10(Changing weather /climate patterns)	less than 10 years as a farm operator	10 to 10 years as a farm operator	20 to 29 years as a farm operator	30 years or more as a farm operator	Total
Not applicable (No change)	5 0.61 2.92 8.62	17 2.09 9.94 17.53	19 2.33 11.11 14.50	130 15.95 76.02 24.57	171 20.98
No Impact	11 1.35 8.87 18.97	18 2.21 14.52 18.56	15 1.84 12.10 11.45	80 9.82 64.52 15.12	124 15.21
Slight Impact	13 1.60 10.00 22.41	14 1.72 10.77 14.43	24 2.94 18.46 18.32	79 9.69 60.77 14.93	130 15.95
Some Impact	15 1.84 6.91 25.86	30 3.68 13.82 30.93	47 5.77 21.66 35.88	125 15.34 57.60 23.63	217 26.63
Quite a bit of Impact	11 1.35 9.73 18.97	17 2.09 15.04 17.53	20 2.45 17.70 15.27	65 7.98 57.52 12.29	113 13.87
Great Impact	2 0.25 4.88 3.45	1 0.12 2.44 1.03	3 0.37 7.32 2.29	35 4.29 85.37 6.62	41 5.03
missing	1 0.12 5.26 1.72	0 0.00 0.00 0.00	3 0.37 15.79 2.29	15 1.84 78.95 2.84	19 2.33
Total	58 7.12	97 11.90	131 16.07	529 64.91	815 100.00
Frequency Missing = 126					

Statistics for Table of Q15A10 by Q1

Statistic	DF	Value	Prob
Chi-Square	18	36.3326	0.0064
Likelihood Ratio Chi-Square	18	41.0852	0.0015
Mantel-Haenszel Chi-Square	1	0.6003	0.4385
Phi Coefficient		0.2111	
Contingency Coefficient		0.2066	
Cramer's V		0.1219	

Effective Sample Size = 815
Frequency Missing = 126

WARNING: 13% of the data are missing.

The FREQ Procedure

Frequency
Percent
Row Pct
Col Pct

Table of Q15A1 by Q3A

	Q3A(Farmland Acres Operated in 2014)						
Q15A1(Changing crop prices)	1 to 259 acres	260 to 499 acres	500 to 999 acres	1000 to 1999 acres	2000 to 4999 acres	5000 acres and above	Total
Not applicable (No change)	18 1.91 9.00 34.62	27 2.87 13.50 25.96	50 5.31 25.00 22.03	63 6.70 31.50 21.58	34 3.61 17.00 15.74	8 0.85 4.00 16.00	200 21.25
No Impact	1 0.11 16.67 1.92	3 0.32 50.00 2.88	1 0.11 16.67 0.44	1 0.11 16.67 0.34	0 0.00 0.00 0.00	0 0.00 0.00 0.00	6 0.64
Slight Impact	2 0.21 9.09 3.85	1 0.11 4.55 0.96	7 0.74 31.82 3.08	4 0.43 18.18 1.37	8 0.85 36.36 3.70	0 0.00 0.00 0.00	22 2.34
Some Impact	8 0.85 6.35 15.38	9 0.96 7.14 8.65	37 3.93 29.37 16.30	36 3.83 28.57 12.33	30 3.19 23.81 13.89	6 0.64 4.76 12.00	126 13.39

Quite a bit of Impact	12 1.28 3.79 23.08	30 3.19 9.46 28.85	79 8.40 24.92 34.80	104 11.05 32.81 35.62	75 7.97 23.66 34.72	17 1.81 5.36 34.00	317 33.69
Great Impact	8 0.85 3.13 15.38	33 3.51 12.89 31.73	48 5.10 18.75 21.15	81 8.61 31.64 27.74	67 7.12 26.17 31.02	19 2.02 7.42 38.00	256 27.21
missing	3 0.32 21.43 5.77	1 0.11 7.14 0.96	5 0.53 35.71 2.20	3 0.32 21.43 1.03	2 0.21 14.29 0.93	0 0.00 0.00 0.00	14 1.49
Total	52 5.53	104 11.05	227 24.12	292 31.03	216 22.95	50 5.31	941 100.00

Statistics for Table of Q15A1 by Q3A

Statistic	DF	Value	Prob
Chi-Square	30	52.5067	0.0067
Likelihood Ratio Chi-Square	30	49.6909	0.0134
Mantel-Haenszel Chi-Square	1	5.9355	0.0148
Phi Coefficient		0.2362	
Contingency Coefficient		0.2299	
Cramer's V		0.1056	
WARNING: 36% of the cells have expected counts less than 5. Chi-Square may not be a valid test.			

Sample Size = 941

Frequency
Percent
Row Pct
Col Pct

Table of Q15A2 by Q3A

	Q3A(Farmland Acres Operated in 2014)						
Q15A2(Changing prices in input markets (seed, fertilizer, chemicals, etc.))	**1 to 259 acres**	**260 to 499 acres**	**500 to 999 acres**	**1000 to 1999 acres**	**2000 to 4999 acres**	**5000 acres and above**	**Total**
Not applicable (No change)	18 1.91 9.00 34.62	27 2.87 13.50 25.96	50 5.31 25.00 22.03	63 6.70 31.50 21.58	34 3.61 17.00 15.74	8 0.85 4.00 16.00	200 21.25
No Impact	3 0.32 12.00 5.77	3 0.32 12.00 2.88	5 0.53 20.00 2.20	7 0.74 28.00 2.40	6 0.64 24.00 2.78	1 0.11 4.00 2.00	25 2.66
Slight Impact	2 0.21 2.63 3.85	8 0.85 10.53 7.69	16 1.70 21.05 7.05	21 2.23 27.63 7.19	23 2.44 30.26 10.65	6 0.64 7.89 12.00	76 8.08
Some Impact	15 1.59 5.38 28.85	22 2.34 7.89 21.15	73 7.76 26.16 32.16	92 9.78 32.97 31.51	67 7.12 24.01 31.02	10 1.06 3.58 20.00	279 29.65
Quite a bit of Impact	8 0.85 3.38 15.38	31 3.29 13.08 29.81	52 5.53 21.94 22.91	74 7.86 31.22 25.34	57 6.06 24.05 26.39	15 1.59 6.33 30.00	237 25.19
Great Impact	3 0.32 2.88 5.77	10 1.06 9.62 9.62	25 2.66 24.04 11.01	30 3.19 28.85 10.27	26 2.76 25.00 12.04	10 1.06 9.62 20.00	104 11.05
missing	3 0.32 15.00 5.77	3 0.32 15.00 2.88	6 0.64 30.00 2.64	5 0.53 25.00 1.71	3 0.32 15.00 1.39	0 0.00 0.00 0.00	20 2.13
Total	52 5.53	104 11.05	227 24.12	292 31.03	216 22.95	50 5.31	941 100.00

Statistics for Table of Q15A2 by Q3A

Statistic	DF	Value	Prob
Chi-Square	30	36.1378	0.2036
Likelihood Ratio Chi-Square	30	35.6550	0.2196
Mantel-Haenszel Chi-Square	1	2.4443	0.1180
Phi Coefficient		0.1960	
Contingency Coefficient		0.1923	
Cramer's V		0.0876	
WARNING: 24% of the cells have expected counts less than 5. Chi-Square may not be a valid test.			

Sample Size = 941

Frequency
Percent
Row Pct
Col Pct

Table of Q15A3 by Q3A

	Q3A(Farmland Acres Operated in 2014)						
Q15A3(Availability of crop and revenue insurance policies)	**1 to 259 acres**	**260 to 499 acres**	**500 to 999 acres**	**1000 to 1999 acres**	**2000 to 4999 acres**	**5000 acres and above**	**Total**
Not applicable (No change)	18 1.91 9.00 34.62	27 2.87 13.50 25.96	50 5.31 25.00 22.03	63 6.70 31.50 21.58	34 3.61 17.00 15.74	8 0.85 4.00 16.00	200 21.25
No Impact	7 0.74 10.29 13.46	12 1.28 17.65 11.54	13 1.38 19.12 5.73	20 2.13 29.41 6.85	15 1.59 22.06 6.94	1 0.11 1.47 2.00	68 7.23
Slight Impact	7 0.74 5.65 13.46	12 1.28 9.68 11.54	36 3.83 29.03 15.86	34 3.61 27.42 11.64	30 3.19 24.19 13.89	5 0.53 4.03 10.00	124 13.18
Some Impact	9 0.96	26 2.76	68 7.23	80 8.50	60 6.38	14 1.49	257 27.31

	3.50 17.31	10.12 25.00	26.46 29.96	31.13 27.40	23.35 27.78	5.45 28.00	
Quite a bit of Impact	7 0.74 3.76 13.46	13 1.38 6.99 12.50	39 4.14 20.97 17.18	63 6.70 33.87 21.58	52 5.53 27.96 24.07	12 1.28 6.45 24.00	186 19.77
Great Impact	1 0.11 1.16 1.92	11 1.17 12.79 10.58	15 1.59 17.44 6.61	26 2.76 30.23 8.90	23 2.44 26.74 10.65	10 1.06 11.63 20.00	86 9.14
missing	3 0.32 15.00 5.77	3 0.32 15.00 2.88	6 0.64 30.00 2.64	6 0.64 30.00 2.05	2 0.21 10.00 0.93	0 0.00 0.00 0.00	20 2.13
Total	52 5.53	104 11.05	227 24.12	292 31.03	216 22.95	50 5.31	941 100.00

Statistics for Table of Q15A3 by Q3A

Statistic	DF	Value	Prob
Chi-Square	30	48.2810	0.0186
Likelihood Ratio Chi-Square	30	48.6560	0.0170
Mantel-Haenszel Chi-Square	1	7.2637	0.0070
Phi Coefficient		0.2265	
Contingency Coefficient		0.2209	
Cramer's V		0.1013	
WARNING: 21% of the cells have expected counts less than 5. Chi-Square may not be a valid test.			

Sample Size = 941

Frequency
Percent
Row Pct
Col Pct

Table of Q15A4 by Q3A

	Q3A(Farmland Acres Operated in 2014)						
Q15A4(Availability of drought-tolerant seed)	**1 to 259 acres**	**260 to 499 acres**	**500 to 999 acres**	**1000 to 1999 acres**	**2000 to 4999 acres**	**5000 acres and above**	**Total**
Not applicable (No change)	18 1.91 9.00 34.62	27 2.87 13.50 25.96	50 5.31 25.00 22.03	63 6.70 31.50 21.58	34 3.61 17.00 15.74	8 0.85 4.00 16.00	200 21.25
No Impact	6 0.64 5.17 11.54	18 1.91 15.52 17.31	27 2.87 23.28 11.89	20 2.13 17.24 6.85	38 4.04 32.76 17.59	7 0.74 6.03 14.00	116 12.33
Slight Impact	11 1.17 5.64 21.15	12 1.28 6.15 11.54	51 5.42 26.15 22.47	65 6.91 33.33 22.26	47 4.99 24.10 21.76	9 0.96 4.62 18.00	195 20.72
Some Impact	9 0.96 3.35 17.31	27 2.87 10.04 25.96	63 6.70 23.42 27.75	92 9.78 34.20 31.51	61 6.48 22.68 28.24	17 1.81 6.32 34.00	269 28.59
Quite a bit of Impact	4 0.43 3.64 7.69	12 1.28 10.91 11.54	25 2.66 22.73 11.01	36 3.83 32.73 12.33	26 2.76 23.64 12.04	7 0.74 6.36 14.00	110 11.69
Great Impact	1 0.11 3.23 1.92	5 0.53 16.13 4.81	5 0.53 16.13 2.20	10 1.06 32.26 3.42	8 0.85 25.81 3.70	2 0.21 6.45 4.00	31 3.29
missing	3 0.32 15.00 5.77	3 0.32 15.00 2.88	6 0.64 30.00 2.64	6 0.64 30.00 2.05	2 0.21 10.00 0.93	0 0.00 0.00 0.00	20 2.13
Total	52 5.53	104 11.05	227 24.12	292 31.03	216 22.95	50 5.31	941 100.00

Statistics for Table of Q15A4 by Q3A

Statistic	DF	Value	Prob
Chi-Square	30	42.2535	0.0681
Likelihood Ratio Chi-Square	30	44.0597	0.0471
Mantel-Haenszel Chi-Square	1	0.2806	0.5963
Phi Coefficient		0.2119	
Contingency Coefficient		0.2073	
Cramer's V		0.0948	

Sample Size = 941

Frequency
Percent
Row Pct
Col Pct

Table of Q15A5 by Q3A

	Q3A(Farmland Acres Operated in 2014)						
Q15A5(Developments in pest management practices, including pest management seed traits)	**1 to 259 acres**	**260 to 499 acres**	**500 to 999 acres**	**1000 to 1999 acres**	**2000 to 4999 acres**	**5000 acres and above**	**Total**
Not applicable (No change)	18 1.91 9.00 34.62	27 2.87 13.50 25.96	50 5.31 25.00 22.03	63 6.70 31.50 21.58	34 3.61 17.00 15.74	8 0.85 4.00 16.00	200 21.25
No Impact	5 0.53 12.50 9.62	8 0.85 20.00 7.69	9 0.96 22.50 3.96	6 0.64 15.00 2.05	9 0.96 22.50 4.17	3 0.32 7.50 6.00	40 4.25
Slight Impact	10 1.06 6.45 19.23	13 1.38 8.39 12.50	38 4.04 24.52 16.74	41 4.36 26.45 14.04	46 4.89 29.68 21.30	7 0.74 4.52 14.00	155 16.47
Some Impact	8	32	70	102	78	20	310

	0.85 2.58 15.38	3.40 10.32 30.77	7.44 22.58 30.84	10.84 32.90 34.93	8.29 25.16 36.11	2.13 6.45 40.00	32.94
Quite a bit of Impact	6 0.64 3.35 11.54	16 1.70 8.94 15.38	45 4.78 25.14 19.82	63 6.70 35.20 21.58	37 3.93 20.67 17.13	12 1.28 6.70 24.00	179 19.02
Great Impact	1 0.11 2.78 1.92	4 0.43 11.11 3.85	9 0.96 25.00 3.96	12 1.28 33.33 4.11	10 1.06 27.78 4.63	0 0.00 0.00 0.00	36 3.83
missing	4 0.43 19.05 7.69	4 0.43 19.05 3.85	6 0.64 28.57 2.64	5 0.53 23.81 1.71	2 0.21 9.52 0.93	0 0.00 0.00 0.00	21 2.23
Total	52 5.53	104 11.05	227 24.12	292 31.03	216 22.95	50 5.31	941 100.00

Statistics for Table of Q15A5 by Q3A

Statistic	DF	Value	Prob
Chi-Square	30	50.7101	0.0105
Likelihood Ratio Chi-Square	30	51.4649	0.0087
Mantel-Haenszel Chi-Square	1	0.2246	0.6355
Phi Coefficient		0.2321	
Contingency Coefficient		0.2261	
Cramer's V		0.1038	
WARNING: 24% of the cells have expected counts less than 5. Chi-Square may not be a valid test.			

Sample Size = 941

Frequency
Percent
Row Pct
Col Pct

Table of Q15A6 by Q3A

	Q3A(Farmland Acres Operated in 2014)						
Q15A6(Improved crop yields (other than seed related traits))	**1 to 259 acres**	**260 to 499 acres**	**500 to 999 acres**	**1000 to 1999 acres**	**2000 to 4999 acres**	**5000 acres and above**	**Total**
Not applicable (No change)	18 1.91 9.00 34.62	27 2.87 13.50 25.96	50 5.31 25.00 22.03	63 6.70 31.50 21.58	34 3.61 17.00 15.74	8 0.85 4.00 16.00	200 21.25
No Impact	1 0.11 7.69 1.92	4 0.43 30.77 3.85	3 0.32 23.08 1.32	1 0.11 7.69 0.34	4 0.43 30.77 1.85	0 0.00 0.00 0.00	13 1.38
Slight Impact	2 0.21 3.33 3.85	7 0.74 11.67 6.73	17 1.81 28.33 7.49	16 1.70 26.67 5.48	13 1.38 21.67 6.02	5 0.53 8.33 10.00	60 6.38
Some Impact	16 1.70 6.75 30.77	28 2.98 11.81 26.92	55 5.84 23.21 24.23	74 7.86 31.22 25.34	53 5.63 22.36 24.54	11 1.17 4.64 22.00	237 25.19
Quite a bit of Impact	11 1.17 3.16 21.15	30 3.19 8.62 28.85	82 8.71 23.56 36.12	109 11.58 31.32 37.33	93 9.88 26.72 43.06	23 2.44 6.61 46.00	348 36.98
Great Impact	1 0.11 1.54 1.92	6 0.64 9.23 5.77	14 1.49 21.54 6.17	24 2.55 36.92 8.22	17 1.81 26.15 7.87	3 0.32 4.62 6.00	65 6.91
missing	3 0.32 16.67 5.77	2 0.21 11.11 1.92	6 0.64 33.33 2.64	5 0.53 27.78 1.71	2 0.21 11.11 0.93	0 0.00 0.00 0.00	18 1.91
Total	52 5.53	104 11.05	227 24.12	292 31.03	216 22.95	50 5.31	941 100.00

Statistics for Table of Q15A6 by Q3A

Statistic	DF	Value	Prob
Chi-Square	30	39.6008	0.1128
Likelihood Ratio Chi-Square	30	40.2798	0.0996
Mantel-Haenszel Chi-Square	1	2.8952	0.0888
Phi Coefficient		0.2051	
Contingency Coefficient		0.2010	
Cramer's V		0.0917	
WARNING: 36% of the cells have expected counts less than 5. Chi-Square may not be a valid test.			

Sample Size = 941

Frequency
Percent
Row Pct
Col Pct

Table of Q15A7 by Q3A

	Q3A(Farmland Acres Operated in 2014)						
Q15A7(Development of more efficient cropping equipment)	**1 to 259 acres**	**260 to 499 acres**	**500 to 999 acres**	**1000 to 1999 acres**	**2000 to 4999 acres**	**5000 acres and above**	**Total**
Not applicable (No change)	18 1.91 9.00 34.62	27 2.87 13.50 25.96	50 5.31 25.00 22.03	63 6.70 31.50 21.58	34 3.61 17.00 15.74	8 0.85 4.00 16.00	200 21.25
No Impact	1 0.11 3.03 1.92	7 0.74 21.21 6.73	8 0.85 24.24 3.52	4 0.43 12.12 1.37	9 0.96 27.27 4.17	4 0.43 12.12 8.00	33 3.51
Slight Impact	7 0.74 8.05	10 1.06 11.49	28 2.98 32.18	24 2.55 27.59	17 1.81 19.54	1 0.11 1.15	87 9.25

	13.46	9.62	12.33	8.22	7.87	2.00	
Some Impact	15 1.59 5.81 28.85	28 2.98 10.85 26.92	52 5.53 20.16 22.91	88 9.35 34.11 30.14	64 6.80 24.81 29.63	11 1.17 4.26 22.00	258 27.42
Quite a bit of Impact	7 0.74 2.49 13.46	25 2.66 8.90 24.04	68 7.23 24.20 29.96	83 8.82 29.54 28.42	75 7.97 26.69 34.72	23 2.44 8.19 46.00	281 29.86
Great Impact	1 0.11 1.64 1.92	4 0.43 6.56 3.85	15 1.59 24.59 6.61	23 2.44 37.70 7.88	15 1.59 24.59 6.94	3 0.32 4.92 6.00	61 6.48
missing	3 0.32 14.29 5.77	3 0.32 14.29 2.88	6 0.64 28.57 2.64	7 0.74 33.33 2.40	2 0.21 9.52 0.93	0 0.00 0.00 0.00	21 2.23
Total	52 5.53	104 11.05	227 24.12	292 31.03	216 22.95	50 5.31	941 100.00

Statistics for Table of Q15A7 by Q3A

Statistic	DF	Value	Prob
Chi-Square	30	52.0628	0.0075
Likelihood Ratio Chi-Square	30	54.6114	0.0039
Mantel-Haenszel Chi-Square	1	3.1001	0.0783
Phi Coefficient		0.2352	
Contingency Coefficient		0.2290	
Cramer's V		0.1052	
WARNING: 26% of the cells have expected counts less than 5. Chi-Square may not be a valid test.			

Sample Size = 941

Frequency
Percent
Row Pct
Col Pct

Table of Q15A8 by Q3A

	Q3A(Farmland Acres Operated in 2014)						
Q15A8(Labor availability problems)	**1 to 259 acres**	**260 to 499 acres**	**500 to 999 acres**	**1000 to 1999 acres**	**2000 to 4999 acres**	**5000 acres and above**	**Total**
Not applicable (No change)	18 1.91 9.00 34.62	27 2.87 13.50 25.96	50 5.31 25.00 22.03	63 6.70 31.50 21.58	34 3.61 17.00 15.74	8 0.85 4.00 16.00	200 21.25
No Impact	18 1.91 10.91 34.62	20 2.13 12.12 19.23	51 5.42 30.91 22.47	40 4.25 24.24 13.70	31 3.29 18.79 14.35	5 0.53 3.03 10.00	165 17.53
Slight Impact	6 0.64 2.93 11.54	26 2.76 12.68 25.00	47 4.99 22.93 20.70	69 7.33 33.66 23.63	48 5.10 23.41 22.22	9 0.96 4.39 18.00	205 21.79
Some Impact	7 0.74 3.07 13.46	21 2.23 9.21 20.19	54 5.74 23.68 23.79	75 7.97 32.89 25.68	55 5.84 24.12 25.46	16 1.70 7.02 32.00	228 24.23
Quite a bit of Impact	0 0.00 0.00 0.00	4 0.43 4.30 3.85	18 1.91 19.35 7.93	29 3.08 31.18 9.93	33 3.51 35.48 15.28	9 0.96 9.68 18.00	93 9.88
Great Impact	0 0.00 0.00 0.00	3 0.32 10.00 2.88	1 0.11 3.33 0.44	10 1.06 33.33 3.42	13 1.38 43.33 6.02	3 0.32 10.00 6.00	30 3.19
missing	3 0.32 15.00 5.77	3 0.32 15.00 2.88	6 0.64 30.00 2.64	6 0.64 30.00 2.05	2 0.21 10.00 0.93	0 0.00 0.00 0.00	20 2.13
Total	52 5.53	104 11.05	227 24.12	292 31.03	216 22.95	50 5.31	941 100.00

Statistics for Table of Q15A8 by Q3A

Statistic	DF	Value	Prob
Chi-Square	30	75.0022	<.0001
Likelihood Ratio Chi-Square	30	82.4633	<.0001
Mantel-Haenszel Chi-Square	1	10.8634	0.0010
Phi Coefficient		0.2823	
Contingency Coefficient		0.2717	
Cramer's V		0.1263	
WARNING: 21% of the cells have expected counts less than 5. Chi-Square may not be a valid test.			

Sample Size = 941

Frequency
Percent
Row Pct
Col Pct

Table of Q15A9 by Q3A

	Q3A(Farmland Acres Operated in 2014)						
Q15A9(Improving wildlife habitat)	**1 to 259 acres**	**260 to 499 acres**	**500 to 999 acres**	**1000 to 1999 acres**	**2000 to 4999 acres**	**5000 acres and above**	**Total**
Not applicable (No change)	18 1.91 9.00 34.62	27 2.87 13.50 25.96	50 5.31 25.00 22.03	63 6.70 31.50 21.58	34 3.61 17.00 15.74	8 0.85 4.00 16.00	200 21.25
No Impact	13 1.38 4.83 25.00	23 2.44 8.55 22.12	66 7.01 24.54 29.07	79 8.40 29.37 27.05	73 7.76 27.14 33.80	15 1.59 5.58 30.00	269 28.59
Slight Impact	16	28	52	83	66	11	256

	1.70 6.25 30.77	2.98 10.94 26.92	5.53 20.31 22.91	8.82 32.42 28.42	7.01 25.78 30.56	1.17 4.30 22.00	27.21
Some Impact	1 0.11 0.65 1.92	16 1.70 10.39 15.38	39 4.14 25.32 17.18	51 5.42 33.12 17.47	32 3.40 20.78 14.81	15 1.59 9.74 30.00	154 16.37
Quite a bit of Impact	1 0.11 4.17 1.92	3 0.32 12.50 2.88	9 0.96 37.50 3.96	6 0.64 25.00 2.05	4 0.43 16.67 1.85	1 0.11 4.17 2.00	24 2.55
Great Impact	0 0.00 0.00 0.00	2 0.21 14.29 1.92	4 0.43 28.57 1.76	5 0.53 35.71 1.71	3 0.32 21.43 1.39	0 0.00 0.00 0.00	14 1.49
missing	3 0.32 12.50 5.77	5 0.53 20.83 4.81	7 0.74 29.17 3.08	5 0.53 20.83 1.71	4 0.43 16.67 1.85	0 0.00 0.00 0.00	24 2.55
Total	52 5.53	104 11.05	227 24.12	292 31.03	216 22.95	50 5.31	941 100.00

Statistics for Table of Q15A9 by Q3A

Statistic	DF	Value	Prob
Chi-Square	30	41.1739	0.0841
Likelihood Ratio Chi-Square	30	45.5786	0.0341
Mantel-Haenszel Chi-Square	1	0.0580	0.8097
Phi Coefficient		0.2092	
Contingency Coefficient		0.2047	
Cramer's V		0.0935	
WARNING: 29% of the cells have expected counts less than 5. Chi-Square may not be a valid test.			

Sample Size = 941

Frequency
Percent
Row Pct
Col Pct

Table of Q15A10 by Q3A

	Q3A(Farmland Acres Operated in 2014)						
Q15A10(Changing weather /climate patterns)	**1 to 259 acres**	**260 to 499 acres**	**500 to 999 acres**	**1000 to 1999 acres**	**2000 to 4999 acres**	**5000 acres and above**	**Total**
Not applicable (No change)	18 1.91 9.00 34.62	27 2.87 13.50 25.96	50 5.31 25.00 22.03	63 6.70 31.50 21.58	34 3.61 17.00 15.74	8 0.85 4.00 16.00	200 21.25
No Impact	9 0.96 6.25 17.31	16 1.70 11.11 15.38	39 4.14 27.08 17.18	32 3.40 22.22 10.96	40 4.25 27.78 18.52	8 0.85 5.56 16.00	144 15.30
Slight Impact	13 1.38 8.90 25.00	10 1.06 6.85 9.62	34 3.61 23.29 14.98	50 5.31 34.25 17.12	30 3.19 20.55 13.89	9 0.96 6.16 18.00	146 15.52
Some Impact	5 0.53 1.95 9.62	21 2.23 8.20 20.19	66 7.01 25.78 29.07	80 8.50 31.25 27.40	72 7.65 28.13 33.33	12 1.28 4.69 24.00	256 27.21
Quite a bit of Impact	4 0.43 3.31 7.69	18 1.91 14.88 17.31	21 2.23 17.36 9.25	42 4.46 34.71 14.38	26 2.76 21.49 12.04	10 1.06 8.26 20.00	121 12.86
Great Impact	0 0.00 0.00 0.00	9 0.96 16.67 8.65	11 1.17 20.37 4.85	20 2.13 37.04 6.85	11 1.17 20.37 5.09	3 0.32 5.56 6.00	54 5.74
missing	3 0.32 15.00 5.77	3 0.32 15.00 2.88	6 0.64 30.00 2.64	5 0.53 25.00 1.71	3 0.32 15.00 1.39	0 0.00 0.00 0.00	20 2.13
Total	52 5.53	104 11.05	227 24.12	292 31.03	216 22.95	50 5.31	941 100.00

Statistics for Table of Q15A10 by Q3A

Statistic	DF	Value	Prob
Chi-Square	30	51.6071	0.0084
Likelihood Ratio Chi-Square	30	56.1182	0.0026
Mantel-Haenszel Chi-Square	1	0.7593	0.3835
Phi Coefficient		0.2342	
Contingency Coefficient		0.2280	
Cramer's V		0.1047	

Sample Size = 941

The FREQ Procedure

Frequency
Percent
Row Pct
Col Pct

Table of Q15A1 by Q4

	Q4(Ownership Status in 2014)					
Q15A1(Changing crop prices)	**Own all acres farmed**	**Own most acres farmed, rented the remainder**	**Own and rent roughly equal number of farmland acres**	**Rented most of the acres farmed,owned the remainder**	**Rented all acres farmland**	**Total**
Not applicable (No change)	46 4.89 23.00 29.68	62 6.59 31.00 21.68	28 2.98 14.00 14.97	50 5.31 25.00 20.33	14 1.49 7.00 20.90	200 21.25
No Impact	3	1	1	1	0	6

	0.32 50.00 1.94	0.11 16.67 0.35	0.11 16.67 0.53	0.11 16.67 0.41	0.00 0.00 0.00	0.64
Slight Impact	4 0.43 18.18 2.58	8 0.85 36.36 2.80	5 0.53 22.73 2.67	4 0.43 18.18 1.63	1 0.11 4.55 1.49	22 2.34
Some Impact	22 2.34 17.46 14.19	45 4.78 35.71 15.73	26 2.76 20.63 13.90	27 2.87 21.43 10.98	6 0.64 4.76 8.96	126 13.39
Quite a bit of Impact	43 4.57 13.56 27.74	87 9.25 27.44 30.42	70 7.44 22.08 37.43	90 9.56 28.39 36.59	27 2.87 8.52 40.30	317 33.69
Great Impact	34 3.61 13.28 21.94	79 8.40 30.86 27.62	54 5.74 21.09 28.88	71 7.55 27.73 28.86	18 1.91 7.03 26.87	256 27.21
missing	3 0.32 21.43 1.94	4 0.43 28.57 1.40	3 0.32 21.43 1.60	3 0.32 21.43 1.22	1 0.11 7.14 1.49	14 1.49
Total	155 16.47	286 30.39	187 19.87	246 26.14	67 7.12	941 100.00

Statistics for Table of Q15A1 by Q4

Statistic	DF	Value	Prob
Chi-Square	24	25.5684	0.3754
Likelihood Ratio Chi-Square	24	24.8222	0.4155
Mantel-Haenszel Chi-Square	1	5.8245	0.0158
Phi Coefficient		0.1648	
Contingency Coefficient		0.1626	
Cramer's V		0.0824	
WARNING: 37% of the cells have expected counts less than 5. Chi-Square may not be a valid test.			

Sample Size = 941

Frequency
Percent
Row Pct
Col Pct

Table of Q15A2 by Q4

Q15A2(Changing prices in input markets (seed, fertilizer, chemicals, etc.))	Q4(Ownership Status in 2014)					
	Own all acres farmed	Own most acres farmed, rented the remainder	Own and rent roughly equal number of farmland acres	Rented most of the acres farmed,owned the remainder	Rented all acres farmland	Total
Not applicable (No change)	46 4.89 23.00 29.68	62 6.59 31.00 21.68	28 2.98 14.00 14.97	50 5.31 25.00 20.33	14 1.49 7.00 20.90	200 21.25
No Impact	6 0.64 24.00 3.87	11 1.17 44.00 3.85	4 0.43 16.00 2.14	4 0.43 16.00 1.63	0 0.00 0.00 0.00	25 2.66
Slight Impact	14 1.49 18.42 9.03	28 2.98 36.84 9.79	12 1.28 15.79 6.42	17 1.81 22.37 6.91	5 0.53 6.58 7.46	76 8.08
Some Impact	32 3.40 11.47 20.65	96 10.20 34.41 33.57	61 6.48 21.86 32.62	67 7.12 24.01 27.24	23 2.44 8.24 34.33	279 29.65
Quite a bit of Impact	36 3.83 15.19 23.23	55 5.84 23.21 19.23	49 5.21 20.68 26.20	80 8.50 33.76 32.52	17 1.81 7.17 25.37	237 25.19
Great Impact	17 1.81 16.35 10.97	27 2.87 25.96 9.44	30 3.19 28.85 16.04	23 2.44 22.12 9.35	7 0.74 6.73 10.45	104 11.05
missing	4 0.43 20.00 2.58	7 0.74 35.00 2.45	3 0.32 15.00 1.60	5 0.53 25.00 2.03	1 0.11 5.00 1.49	20 2.13
Total	155 16.47	286 30.39	187 19.87	246 26.14	67 7.12	941 100.00

Statistics for Table of Q15A2 by Q4

Statistic	DF	Value	Prob
Chi-Square	24	39.4763	0.0243
Likelihood Ratio Chi-Square	24	40.8758	0.0172
Mantel-Haenszel Chi-Square	1	4.5875	0.0322
Phi Coefficient		0.2048	
Contingency Coefficient		0.2007	
Cramer's V		0.1024	

Sample Size = 941

Frequency
Percent
Row Pct
Col Pct

Table of Q15A3 by Q4

Q15A3(Availability of crop and revenue insurance policies)	Q4(Ownership Status in 2014)					
	Own all acres farmed	Own most acres farmed, rented the remainder	Own and rent roughly equal number of farmland acres	Rented most of the acres farmed,owned the remainder	Rented all acres farmland	Total
Not applicable (No change)	46 4.89 23.00 29.68	62 6.59 31.00 21.68	28 2.98 14.00 14.97	50 5.31 25.00 20.33	14 1.49 7.00 20.90	200 21.25

No Impact	15 1.59 22.06 9.68	27 2.87 39.71 9.44	9 0.96 13.24 4.81	15 1.59 22.06 6.10	2 0.21 2.94 2.99	68 7.23
Slight Impact	21 2.23 16.94 13.55	30 3.19 24.19 10.49	28 2.98 22.58 14.97	30 3.19 24.19 12.20	15 1.59 12.10 22.39	124 13.18
Some Impact	34 3.61 13.23 21.94	78 8.29 30.35 27.27	58 6.16 22.57 31.02	71 7.55 27.63 28.86	16 1.70 6.23 23.88	257 27.31
Quite a bit of Impact	26 2.76 13.98 16.77	47 4.99 25.27 16.43	39 4.14 20.97 20.86	60 6.38 32.26 24.39	14 1.49 7.53 20.90	186 19.77
Great Impact	8 0.85 9.30 5.16	35 3.72 40.70 12.24	22 2.34 25.58 11.76	16 1.70 18.60 6.50	5 0.53 5.81 7.46	86 9.14
missing	5 0.53 25.00 3.23	7 0.74 35.00 2.45	3 0.32 15.00 1.60	4 0.43 20.00 1.63	1 0.11 5.00 1.49	20 2.13
Total	155 16.47	286 30.39	187 19.87	246 26.14	67 7.12	941 100.00

Statistics for Table of Q15A3 by Q4

Statistic	DF	Value	Prob
Chi-Square	24	41.2081	0.0158
Likelihood Ratio Chi-Square	24	41.0893	0.0163
Mantel-Haenszel Chi-Square	1	2.1394	0.1436
Phi Coefficient		0.2093	
Contingency Coefficient		0.2048	
Cramer's V		0.1046	

Sample Size = 941

Frequency
Percent
Row Pct
Col Pct

Table of Q15A4 by Q4

Q15A4(Availability of drought-tolerant seed)	Q4(Ownership Status in 2014)					
	Own all acres farmed	**Own most acres farmed, rented the remainder**	**Own and rent roughly equal number of farmland acres**	**Rented most of the acres farmed,owned the remainder**	**Rented all acres farmland**	**Total**
Not applicable (No change)	46 4.89 23.00 29.68	62 6.59 31.00 21.68	28 2.98 14.00 14.97	50 5.31 25.00 20.33	14 1.49 7.00 20.90	200 21.25
No Impact	21 2.23 18.10 13.55	33 3.51 28.45 11.54	25 2.66 21.55 13.37	31 3.29 26.72 12.60	6 0.64 5.17 8.96	116 12.33
Slight Impact	26 2.76 13.33 16.77	61 6.48 31.28 21.33	40 4.25 20.51 21.39	54 5.74 27.69 21.95	14 1.49 7.18 20.90	195 20.72
Some Impact	37 3.93 13.75 23.87	81 8.61 30.11 28.32	57 6.06 21.19 30.48	70 7.44 26.02 28.46	24 2.55 8.92 35.82	269 28.59
Quite a bit of Impact	16 1.70 14.55 10.32	32 3.40 29.09 11.19	25 2.66 22.73 13.37	29 3.08 26.36 11.79	8 0.85 7.27 11.94	110 11.69
Great Impact	3 0.32 9.68 1.94	11 1.17 35.48 3.85	9 0.96 29.03 4.81	8 0.85 25.81 3.25	0 0.00 0.00 0.00	31 3.29
missing	6 0.64 30.00 3.87	6 0.64 30.00 2.10	3 0.32 15.00 1.60	4 0.43 20.00 1.63	1 0.11 5.00 1.49	20 2.13
Total	155 16.47	286 30.39	187 19.87	246 26.14	67 7.12	941 100.00

Statistics for Table of Q15A4 by Q4

Statistic	DF	Value	Prob
Chi-Square	24	22.3092	0.5608
Likelihood Ratio Chi-Square	24	24.0483	0.4588
Mantel-Haenszel Chi-Square	1	0.4955	0.4815
Phi Coefficient		0.1540	
Contingency Coefficient		0.1522	
Cramer's V		0.0770	

Sample Size = 941

Frequency
Percent
Row Pct
Col Pct

Table of Q15A5 by Q4

Q15A5(Developments in pest management practices, including pest management seed traits)	Q4(Ownership Status in 2014)					
	Own all acres farmed	**Own most acres farmed, rented the remainder**	**Own and rent roughly equal number of farmland acres**	**Rented most of the acres farmed,owned the remainder**	**Rented all acres farmland**	**Total**
Not applicable (No change)	46 4.89 23.00 29.68	62 6.59 31.00 21.68	28 2.98 14.00 14.97	50 5.31 25.00 20.33	14 1.49 7.00 20.90	200 21.25
No Impact	11	7	8	12	1	40

No Impact	11 1.17 27.50 7.10	7 0.74 17.50 2.45	8 0.85 20.00 4.28	13 1.38 32.50 5.28	1 0.11 2.50 1.49	40 4.25
Slight Impact	22 2.34 14.19 14.19	50 5.31 32.26 17.48	35 3.72 22.58 18.72	36 3.83 23.23 14.63	12 1.28 7.74 17.91	155 16.47
Some Impact	42 4.46 13.55 27.10	92 9.78 29.68 32.17	67 7.12 21.61 35.83	84 8.93 27.10 34.15	25 2.66 8.06 37.31	310 32.94
Quite a bit of Impact	23 2.44 12.85 14.84	56 5.95 31.28 19.58	36 3.83 20.11 19.25	51 5.42 28.49 20.73	13 1.38 7.26 19.40	179 19.02
Great Impact	5 0.53 13.89 3.23	12 1.28 33.33 4.20	10 1.06 27.78 5.35	8 0.85 22.22 3.25	1 0.11 2.78 1.49	36 3.83
missing	6 0.64 28.57 3.87	7 0.74 33.33 2.45	3 0.32 14.29 1.60	4 0.43 19.05 1.63	1 0.11 4.76 1.49	21 2.23
Total	155 16.47	286 30.39	187 19.87	246 26.14	67 7.12	941 100.00

Statistics for Table of Q15A5 by Q4

Statistic	DF	Value	Prob
Chi-Square	24	27.4193	0.2853
Likelihood Ratio Chi-Square	24	27.6432	0.2754
Mantel-Haenszel Chi-Square	1	0.7731	0.3792
Phi Coefficient		0.1707	
Contingency Coefficient		0.1683	
Cramer's V		0.0853	

Sample Size = 941

Frequency
Percent
Row Pct
Col Pct

Table of Q15A6 by Q4

Q15A6(Improved crop yields (other than seed related traits))	Q4(Ownership Status in 2014)					
	Own all acres farmed	Own most acres farmed, rented the remainder	Own and rent roughly equal number of farmland acres	Rented most of the acres farmed,owned the remainder	Rented all acres farmland	Total
Not applicable (No change)	46 4.89 23.00 29.68	62 6.59 31.00 21.68	28 2.98 14.00 14.97	50 5.31 25.00 20.33	14 1.49 7.00 20.90	200 21.25
No Impact	6 0.64 46.15 3.87	6 0.64 46.15 2.10	0 0.00 0.00 0.00	1 0.11 7.69 0.41	0 0.00 0.00 0.00	13 1.38
Slight Impact	10 1.06 16.67 6.45	18 1.91 30.00 6.29	18 1.91 30.00 9.63	10 1.06 16.67 4.07	4 0.43 6.67 5.97	60 6.38
Some Impact	29 3.08 12.24 18.71	71 7.55 29.96 24.83	48 5.10 20.25 25.67	68 7.23 28.69 27.64	21 2.23 8.86 31.34	237 25.19
Quite a bit of Impact	49 5.21 14.08 31.61	105 11.16 30.17 36.71	74 7.86 21.26 39.57	97 10.31 27.87 39.43	23 2.44 6.61 34.33	348 36.98
Great Impact	11 1.17 16.92 7.10	18 1.91 27.69 6.29	16 1.70 24.62 8.56	16 1.70 24.62 6.50	4 0.43 6.15 5.97	65 6.91
missing	4 0.43 22.22 2.58	6 0.64 33.33 2.10	3 0.32 16.67 1.60	4 0.43 22.22 1.63	1 0.11 5.56 1.49	18 1.91
Total	155 16.47	286 30.39	187 19.87	246 26.14	67 7.12	941 100.00

Statistics for Table of Q15A6 by Q4

Statistic	DF	Value	Prob
Chi-Square	24	35.1772	0.0658
Likelihood Ratio Chi-Square	24	36.7559	0.0463
Mantel-Haenszel Chi-Square	1	3.0788	0.0793
Phi Coefficient		0.1933	
Contingency Coefficient		0.1898	
Cramer's V		0.0967	
WARNING: 31% of the cells have expected counts less than 5. Chi-Square may not be a valid test.			

Sample Size = 941

Frequency
Percent
Row Pct
Col Pct

Table of Q15A7 by Q4

Q15A7(Development of more efficient cropping equipment)	Q4(Ownership Status in 2014)					
	Own all acres farmed	Own most acres farmed, rented the remainder	Own and rent roughly equal number of farmland acres	Rented most of the acres farmed,owned the remainder	Rented all acres farmland	Total
Not applicable (No change)	46 4.89 23.00	62 6.59 31.00	28 2.98 14.00	50 5.31 25.00	14 1.49 7.00	200 21.25

	29.68	21.68	14.97	20.33	20.90	
No Impact	8 0.85 24.24 5.16	12 1.28 36.36 4.20	5 0.53 15.15 2.67	6 0.64 18.18 2.44	2 0.21 6.06 2.99	33 3.51
Slight Impact	11 1.17 12.64 7.10	29 3.08 33.33 10.14	17 1.81 19.54 9.09	19 2.02 21.84 7.72	11 1.17 12.64 16.42	87 9.25
Some Impact	38 4.04 14.73 24.52	73 7.76 28.29 25.52	59 6.27 22.87 31.55	71 7.55 27.52 28.86	17 1.81 6.59 25.37	258 27.42
Quite a bit of Impact	41 4.36 14.59 26.45	83 8.82 29.54 29.02	59 6.27 21.00 31.55	79 8.40 28.11 32.11	19 2.02 6.76 28.36	281 29.86
Great Impact	7 0.74 11.48 4.52	20 2.13 32.79 6.99	16 1.70 26.23 8.56	15 1.59 24.59 6.10	3 0.32 4.92 4.48	61 6.48
missing	4 0.43 19.05 2.58	7 0.74 33.33 2.45	3 0.32 14.29 1.60	6 0.64 28.57 2.44	1 0.11 4.76 1.49	21 2.23
Total	155 16.47	286 30.39	187 19.87	246 26.14	67 7.12	941 100.00

Statistics for Table of Q15A7 by Q4

Statistic	DF	Value	Prob
Chi-Square	24	24.0227	0.4603
Likelihood Ratio Chi-Square	24	23.2804	0.5033
Mantel-Haenszel Chi-Square	1	2.4000	0.1213
Phi Coefficient		0.1598	
Contingency Coefficient		0.1578	
Cramer's V		0.0799	

Sample Size = 941

Frequency
Percent
Row Pct
Col Pct

Table of Q15A8 by Q4

Q15A8(Labor availability problems)	Q4(Ownership Status in 2014)					
	Own all acres farmed	Own most acres farmed, rented the remainder	Own and rent roughly equal number of farmland acres	Rented most of the acres farmed,owned the remainder	Rented all acres farmland	Total
Not applicable (No change)	46 4.89 23.00 29.68	62 6.59 31.00 21.68	28 2.98 14.00 14.97	50 5.31 25.00 20.33	14 1.49 7.00 20.90	200 21.25
No Impact	34 3.61 20.61 21.94	52 5.53 31.52 18.18	33 3.51 20.00 17.65	35 3.72 21.21 14.23	11 1.17 6.67 16.42	165 17.53
Slight Impact	28 2.98 13.66 18.06	57 6.06 27.80 19.93	48 5.10 23.41 25.67	53 5.63 25.85 21.54	19 2.02 9.27 28.36	205 21.79
Some Impact	28 2.98 12.28 18.06	70 7.44 30.70 24.48	49 5.21 21.49 26.20	62 6.59 27.19 25.20	19 2.02 8.33 28.36	228 24.23
Quite a bit of Impact	10 1.06 10.75 6.45	28 2.98 30.11 9.79	18 1.91 19.35 9.63	35 3.72 37.63 14.23	2 0.21 2.15 2.99	93 9.88
Great Impact	4 0.43 13.33 2.58	10 1.06 33.33 3.50	8 0.85 26.67 4.28	7 0.74 23.33 2.85	1 0.11 3.33 1.49	30 3.19
missing	5 0.53 25.00 3.23	7 0.74 35.00 2.45	3 0.32 15.00 1.60	4 0.43 20.00 1.63	1 0.11 5.00 1.49	20 2.13
Total	155 16.47	286 30.39	187 19.87	246 26.14	67 7.12	941 100.00

Statistics for Table of Q15A8 by Q4

Statistic	DF	Value	Prob
Chi-Square	24	32.6288	0.1122
Likelihood Ratio Chi-Square	24	33.4817	0.0943
Mantel-Haenszel Chi-Square	1	1.7702	0.1834
Phi Coefficient		0.1862	
Contingency Coefficient		0.1831	
Cramer's V		0.0931	

Sample Size = 941

Frequency
Percent
Row Pct
Col Pct

Table of Q15A9 by Q4

Q15A9(Improving wildlife habitat)	Q4(Ownership Status in 2014)					
	Own all acres farmed	Own most acres farmed, rented the remainder	Own and rent roughly equal number of farmland acres	Rented most of the acres farmed,owned the remainder	Rented all acres farmland	Total
Not applicable (No change)	46 4.89 23.00 29.68	62 6.59 31.00 21.68	28 2.98 14.00 14.97	50 5.31 25.00 20.33	14 1.49 7.00 20.90	200 21.25

No Impact	39 4.14 14.50 25.16	86 9.14 31.97 30.07	58 6.16 21.56 31.02	68 7.23 25.28 27.64	18 1.91 6.69 26.87	269 28.59
Slight Impact	38 4.04 14.84 24.52	69 7.33 26.95 24.13	53 5.63 20.70 28.34	71 7.55 27.73 28.86	25 2.66 9.77 37.31	256 27.21
Some Impact	22 2.34 14.29 14.19	49 5.21 31.82 17.13	32 3.40 20.78 17.11	44 4.68 28.57 17.89	7 0.74 4.55 10.45	154 16.37
Quite a bit of Impact	2 0.21 8.33 1.29	9 0.96 37.50 3.15	5 0.53 20.83 2.67	6 0.64 25.00 2.44	2 0.21 8.33 2.99	24 2.55
Great Impact	2 0.21 14.29 1.29	3 0.32 21.43 1.05	6 0.64 42.86 3.21	3 0.32 21.43 1.22	0 0.00 0.00 0.00	14 1.49
missing	6 0.64 25.00 3.87	8 0.85 33.33 2.80	5 0.53 20.83 2.67	4 0.43 16.67 1.63	1 0.11 4.17 1.49	24 2.55
Total	155 16.47	286 30.39	187 19.87	246 26.14	67 7.12	941 100.00

Statistics for Table of Q15A9 by Q4

Statistic	DF	Value	Prob
Chi-Square	24	25.7613	0.3654
Likelihood Ratio Chi-Square	24	25.9390	0.3563
Mantel-Haenszel Chi-Square	1	0.0011	0.9737
Phi Coefficient		0.1655	
Contingency Coefficient		0.1632	
Cramer's V		0.0827	
WARNING: 31% of the cells have expected counts less than 5. Chi-Square may not be a valid test.			

Sample Size = 941

Frequency
Percent
Row Pct
Col Pct

Table of Q15A10 by Q4

Q15A10(Changing weather /climate patterns)	Q4(Ownership Status in 2014)					
	Own all acres farmed	Own most acres farmed, rented the remainder	Own and rent roughly equal number of farmland acres	Rented most of the acres farmed,owned the remainder	Rented all acres farmland	Total
Not applicable (No change)	46 4.89 23.00 29.68	62 6.59 31.00 21.68	28 2.98 14.00 14.97	50 5.31 25.00 20.33	14 1.49 7.00 20.90	200 21.25
No Impact	24 2.55 16.67 15.48	46 4.89 31.94 16.08	31 3.29 21.53 16.58	30 3.19 20.83 12.20	13 1.38 9.03 19.40	144 15.30
Slight Impact	17 1.81 11.64 10.97	44 4.68 30.14 15.38	35 3.72 23.97 18.72	35 3.72 23.97 14.23	15 1.59 10.27 22.39	146 15.52
Some Impact	28 2.98 10.94 18.06	74 7.86 28.91 25.87	62 6.59 24.22 33.16	78 8.29 30.47 31.71	14 1.49 5.47 20.90	256 27.21
Quite a bit of Impact	16 1.70 13.22 10.32	38 4.04 31.40 13.29	21 2.23 17.36 11.23	36 3.83 29.75 14.63	10 1.06 8.26 14.93	121 12.86
Great Impact	19 2.02 35.19 12.26	15 1.59 27.78 5.24	7 0.74 12.96 3.74	13 1.38 24.07 5.28	0 0.00 0.00 0.00	54 5.74
missing	5 0.53 25.00 3.23	7 0.74 35.00 2.45	3 0.32 15.00 1.60	4 0.43 20.00 1.63	1 0.11 5.00 1.49	20 2.13
Total	155 16.47	286 30.39	187 19.87	246 26.14	67 7.12	941 100.00

Statistics for Table of Q15A10 by Q4

Statistic	DF	Value	Prob
Chi-Square	24	47.7144	0.0027
Likelihood Ratio Chi-Square	24	49.1549	0.0018
Mantel-Haenszel Chi-Square	1	0.0000	0.9972
Phi Coefficient		0.2252	
Contingency Coefficient		0.2197	
Cramer's V		0.1126	

Sample Size = 941

The FREQ Procedure

Frequency
Percent
Row Pct
Col Pct

Table of Q15A1 by Q3C

Q15A1(Changing crop	Q3C(CRP acres in 2014)											
	0	1 to 9	10 to 49	50 to 69	70 to 99	100 to 139	140 to 179	180 to 219	220 to 259	260 to 499	500 to 999	1,000 to 1,999	Total

prices)	acres	acres	acres	acres	acres	acres	acres	acres	acres	acres	acres	acres	
Not applicable (No change)	138 14.67 69.00 21.30	15 1.59 7.50 28.30	18 1.91 9.00 16.82	3 0.32 1.50 21.43	6 0.64 3.00 21.43	11 1.17 5.50 34.38	0 0.00 0.00 0.00	4 0.43 2.00 22.22	0 0.00 0.00 0.00	5 0.53 2.50 27.78	0 0.00 0.00 0.00	0 0.00 0.00 0.00	200 21.25
No Impact	4 0.43 66.67 0.62	0 0.00 0.00 0.00	1 0.11 16.67 0.93	0 0.00 0.00 0.00	1 0.11 16.67 3.57	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	6 0.64
Slight Impact	15 1.59 68.18 2.31	2 0.21 9.09 3.77	2 0.21 9.09 1.87	0 0.00 0.00 0.00	1 0.11 4.55 3.57	2 0.21 9.09 6.25	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	22 2.34
Some Impact	83 8.82 65.87 12.81	6 0.64 4.76 11.32	17 1.81 13.49 15.89	5 0.53 3.97 35.71	7 0.74 5.56 25.00	3 0.32 2.38 9.38	1 0.11 0.79 6.25	2 0.21 1.59 11.11	0 0.00 0.00 0.00	2 0.21 1.59 11.11	0 0.00 0.00 0.00	0 0.00 0.00 0.00	126 13.39
Quite a bit of Impact	228 24.23 71.92 35.19	16 1.70 5.05 30.19	37 3.93 11.67 34.58	4 0.43 1.26 28.57	5 0.53 1.58 17.86	8 0.85 2.52 25.00	6 0.64 1.89 37.50	6 0.64 1.89 33.33	0 0.00 0.00 0.00	4 0.43 1.26 22.22	2 0.21 0.63 50.00	1 0.11 0.32 100.00	317 33.69
Great Impact	170 18.07 66.41 26.23	14 1.49 5.47 26.42	29 3.08 11.33 27.10	2 0.21 0.78 14.29	8 0.85 3.13 28.57	7 0.74 2.73 21.88	9 0.96 3.52 56.25	6 0.64 2.34 33.33	2 0.21 0.78 100.00	7 0.74 2.73 38.89	2 0.21 0.78 50.00	0 0.00 0.00 0.00	256 27.21
missing	10 1.06 71.43 1.54	0 0.00 0.00 0.00	3 0.32 21.43 2.80	0 0.00 0.00 0.00	0 0.00 0.00 0.00	1 0.11 7.14 3.13	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	14 1.49
Total	648 68.86	53 5.63	107 11.37	14 1.49	28 2.98	32 3.40	16 1.70	18 1.91	2 0.21	18 1.91	4 0.43	1 0.11	941 100.00

Statistics for Table of Q15A1 by Q3C

Statistic	DF	Value	Prob
Chi-Square	66	53.7478	0.8603
Likelihood Ratio Chi-Square	66	57.1065	0.7743
Mantel-Haenszel Chi-Square	1	0.8060	0.3693
Phi Coefficient		0.2390	
Contingency Coefficient		0.2324	
Cramer's V		0.0976	
WARNING: 73% of the cells have expected counts less than 5. Chi-Square may not be a valid test.			

Sample Size = 941

Frequency
Percent
Row Pct
Col Pct

Table of Q15A2 by Q3C

Q15A2(Changing prices in input markets (seed, fertilizer, chemicals, etc.))	Q3C(CRP acres in 2014)												
	0 acres	1 to 9 acres	10 to 49 acres	50 to 69 acres	70 to 99 acres	100 to 139 acres	140 to 179 acres	180 to 219 acres	220 to 259 acres	260 to 499 acres	500 to 999 acres	1,000 to 1,999 acres	Total
Not applicable (No change)	138 14.67 69.00 21.30	15 1.59 7.50 28.30	18 1.91 9.00 16.82	3 0.32 1.50 21.43	6 0.64 3.00 21.43	11 1.17 5.50 34.38	0 0.00 0.00 0.00	4 0.43 2.00 22.22	0 0.00 0.00 0.00	5 0.53 2.50 27.78	0 0.00 0.00 0.00	0 0.00 0.00 0.00	200 21.25
No Impact	15 1.59 60.00 2.31	1 0.11 4.00 1.89	6 0.64 24.00 5.61	0 0.00 0.00 0.00	2 0.21 8.00 7.14	0 0.00 0.00 0.00	0 0.00 0.00 0.00	1 0.11 4.00 5.56	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	25 2.66
Slight Impact	45 4.78 59.21 6.94	5 0.53 6.58 9.43	13 1.38 17.11 12.15	1 0.11 1.32 7.14	4 0.43 5.26 14.29	2 0.21 2.63 6.25	1 0.11 1.32 6.25	2 0.21 2.63 11.11	1 0.11 1.32 50.00	0 0.00 0.00 0.00	2 0.21 2.63 50.00	0 0.00 0.00 0.00	76 8.08
Some Impact	203 21.57 72.76 31.33	16 1.70 5.73 30.19	29 3.08 10.39 27.10	6 0.64 2.15 42.86	8 0.85 2.87 28.57	5 0.53 1.79 15.63	6 0.64 2.15 37.50	1 0.11 0.36 5.56	1 0.11 0.36 50.00	4 0.43 1.43 22.22	0 0.00 0.00 0.00	0 0.00 0.00 0.00	279 29.65
Quite a bit of Impact	160 17.00 67.51 24.69	13 1.38 5.49 24.53	25 2.66 10.55 23.36	4 0.43 1.69 28.57	5 0.53 2.11 17.86	9 0.96 3.80 28.13	3 0.32 1.27 18.75	6 0.64 2.53 33.33	0 0.00 0.00 0.00	9 0.96 3.80 50.00	2 0.21 0.84 50.00	1 0.11 0.42 100.00	237 25.19
Great Impact	74 7.86 71.15 11.42	3 0.32 2.88 5.66	11 1.17 10.58 10.28	0 0.00 0.00 0.00	2 0.21 1.92 7.14	4 0.43 3.85 12.50	6 0.64 5.77 37.50	4 0.43 3.85 22.22	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	104 11.05
missing	13 1.38 65.00 2.01	0 0.00 0.00 0.00	5 0.53 25.00 4.67	0 0.00 0.00 0.00	1 0.11 5.00 3.57	1 0.11 5.00 3.13	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	20 2.13
Total	648 68.86	53 5.63	107 11.37	14 1.49	28 2.98	32 3.40	16 1.70	18 1.91	2 0.21	18 1.91	4 0.43	1 0.11	941 100.00

Statistics for Table of Q15A2 by Q3C

Statistic	DF	Value	Prob
Chi-Square	66	83.1362	0.0755
Likelihood Ratio Chi-Square	66	86.0927	0.0490
Mantel-Haenszel Chi-Square	1	0.2337	0.6288
Phi Coefficient		0.2972	
Contingency Coefficient		0.2849	
Cramer's V		0.1213	
WARNING: 71% of the cells have expected counts less than 5. Chi-Square may not be a valid test.			

Sample Size = 941

Frequency
Percent
Row Pct
Col Pct

Table of Q15A3 by Q3C

Q15A3(Availability of crop and revenue insurance policies)	Q3C(CRP acres in 2014)												
	0 acres	1 to 9 acres	10 to 49 acres	50 to 69 acres	70 to 99 acres	100 to 139 acres	140 to 179 acres	180 to 219 acres	220 to 259 acres	260 to 499 acres	500 to 999 acres	1,000 to 1,999 acres	Total
Not applicable (No change)	138 14.67 69.00 21.30	15 1.59 7.50 28.30	18 1.91 9.00 16.82	3 0.32 1.50 21.43	6 0.64 3.00 21.43	11 1.17 5.50 34.38	0 0.00 0.00 0.00	4 0.43 2.00 22.22	0 0.00 0.00 0.00	5 0.53 2.50 27.78	0 0.00 0.00 0.00	0 0.00 0.00 0.00	200 21.25
No Impact	44 4.68 64.71 6.79	1 0.11 1.47 1.89	16 1.70 23.53 14.95	1 0.11 1.47 7.14	1 0.11 1.47 3.57	2 0.21 2.94 6.25	3 0.32 4.41 18.75	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	68 7.23
Slight Impact	89 9.46 71.77 13.73	12 1.28 9.68 22.64	9 0.96 7.26 8.41	2 0.21 1.61 14.29	4 0.43 3.23 14.29	1 0.11 0.81 3.13	1 0.11 0.81 6.25	2 0.21 1.61 11.11	1 0.11 0.81 50.00	2 0.21 1.61 11.11	1 0.11 0.81 25.00	0 0.00 0.00 0.00	124 13.18
Some Impact	182 19.34 70.82 28.09	9 0.96 3.50 16.98	26 2.76 10.12 24.30	5 0.53 1.95 35.71	11 1.17 4.28 39.29	8 0.85 3.11 25.00	5 0.53 1.95 31.25	4 0.43 1.56 22.22	1 0.11 0.39 50.00	4 0.43 1.56 22.22	1 0.11 0.39 25.00	1 0.11 0.39 100.00	257 27.31
Quite a bit of Impact	130 13.82 69.89 20.06	12 1.28 6.45 22.64	20 2.13 10.75 18.69	3 0.32 1.61 21.43	2 0.21 1.08 7.14	8 0.85 4.30 25.00	4 0.43 2.15 25.00	2 0.21 1.08 11.11	0 0.00 0.00 0.00	4 0.43 2.15 22.22	1 0.11 0.54 25.00	0 0.00 0.00 0.00	186 19.77
Great Impact	52 5.53 60.47 8.02	3 0.32 3.49 5.66	14 1.49 16.28 13.08	0 0.00 0.00 0.00	3 0.32 3.49 10.71	1 0.11 1.16 3.13	3 0.32 3.49 18.75	6 0.64 6.98 33.33	0 0.00 0.00 0.00	3 0.32 3.49 16.67	1 0.11 1.16 25.00	0 0.00 0.00 0.00	86 9.14
missing	13 1.38 65.00 2.01	1 0.11 5.00 1.89	4 0.43 20.00 3.74	0 0.00 0.00 0.00	1 0.11 5.00 3.57	1 0.11 5.00 3.13	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	20 2.13
Total	648 68.86	53 5.63	107 11.37	14 1.49	28 2.98	32 3.40	16 1.70	18 1.91	2 0.21	18 1.91	4 0.43	1 0.11	941 100.00

Statistics for Table of Q15A3 by Q3C

Statistic	DF	Value	Prob
Chi-Square	66	76.0569	0.1862
Likelihood Ratio Chi-Square	66	79.7872	0.1185
Mantel-Haenszel Chi-Square	1	0.9974	0.3179
Phi Coefficient		0.2843	
Contingency Coefficient		0.2735	
Cramer's V		0.1161	
WARNING: 73% of the cells have expected counts less than 5. Chi-Square may not be a valid test.			

Sample Size = 941

Frequency
Percent
Row Pct
Col Pct

Table of Q15A4 by Q3C

Q15A4(Availability of drought-tolerant seed)	Q3C(CRP acres in 2014)												
	0 acres	1 to 9 acres	10 to 49 acres	50 to 69 acres	70 to 99 acres	100 to 139 acres	140 to 179 acres	180 to 219 acres	220 to 259 acres	260 to 499 acres	500 to 999 acres	1,000 to 1,999 acres	Total
Not applicable (No change)	138 14.67 69.00 21.30	15 1.59 7.50 28.30	18 1.91 9.00 16.82	3 0.32 1.50 21.43	6 0.64 3.00 21.43	11 1.17 5.50 34.38	0 0.00 0.00 0.00	4 0.43 2.00 22.22	0 0.00 0.00 0.00	5 0.53 2.50 27.78	0 0.00 0.00 0.00	0 0.00 0.00 0.00	200 21.25
No Impact	78 8.29 67.24 12.04	6 0.64 5.17 11.32	15 1.59 12.93 14.02	2 0.21 1.72 14.29	4 0.43 3.45 14.29	1 0.11 0.86 3.13	4 0.43 3.45 25.00	3 0.32 2.59 16.67	0 0.00 0.00 0.00	2 0.21 1.72 11.11	1 0.11 0.86 25.00	0 0.00 0.00 0.00	116 12.33
Slight Impact	129 13.71 66.15 19.91	13 1.38 6.67 24.53	25 2.66 12.82 23.36	3 0.32 1.54 21.43	5 0.53 2.56 17.86	3 0.32 1.54 9.38	6 0.64 3.08 37.50	3 0.32 1.54 16.67	1 0.11 0.51 50.00	5 0.53 2.56 27.78	2 0.21 1.03 50.00	0 0.00 0.00 0.00	195 20.72
Some Impact	197 20.94 73.23 30.40	16 1.70 5.95 30.19	21 2.23 7.81 19.63	5 0.53 1.86 35.71	9 0.96 3.35 32.14	9 0.96 3.35 28.13	2 0.21 0.74 12.50	3 0.32 1.12 16.67	1 0.11 0.37 50.00	4 0.43 1.49 22.22	1 0.11 0.37 25.00	1 0.11 0.37 100.00	269 28.59
Quite a bit of Impact	74 7.86 67.27 11.42	2 0.21 1.82 3.77	17 1.81 15.45 15.89	1 0.11 0.91 7.14	3 0.32 2.73 10.71	6 0.64 5.45 18.75	3 0.32 2.73 18.75	2 0.21 1.82 11.11	0 0.00 0.00 0.00	2 0.21 1.82 11.11	0 0.00 0.00 0.00	0 0.00 0.00 0.00	110 11.69
Great Impact	19 2.02 61.29 2.93	1 0.11 3.23 1.89	7 0.74 22.58 6.54	0 0.00 0.00 0.00	0 0.00 0.00 0.00	1 0.11 3.23 3.13	1 0.11 3.23 6.25	2 0.21 6.45 11.11	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	31 3.29
missing	13 1.38 65.00 2.01	0 0.00 0.00 0.00	4 0.43 20.00 3.74	0 0.00 0.00 0.00	1 0.11 5.00 3.57	1 0.11 5.00 3.13	0 0.00 0.00 0.00	1 0.11 5.00 5.56	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	20 2.13
Total	648 68.86	53 5.63	107 11.37	14 1.49	28 2.98	32 3.40	16 1.70	18 1.91	2 0.21	18 1.91	4 0.43	1 0.11	941 100.00

Statistics for Table of Q15A4 by Q3C

Statistic	DF	Value	Prob
Chi-Square	66	56.0755	0.8030
Likelihood Ratio Chi-Square	66	64.0218	0.5461
Mantel-Haenszel Chi-Square	1	0.0044	0.9472
Phi Coefficient		0.2441	
Contingency Coefficient		0.2371	
Cramer's V		0.0997	
WARNING: 70% of the cells have expected counts less than 5. Chi-Square may not be a valid test.			

Sample Size = 941

Frequency
Percent
Row Pct
Col Pct

Table of Q15A5 by Q3C

Q15A5(Developments in pest management practices, including pest management seed traits)	Q3C(CRP acres in 2014)												
	0 acres	1 to 9 acres	10 to 49 acres	50 to 69 acres	70 to 99 acres	100 to 139 acres	140 to 179 acres	180 to 219 acres	220 to 259 acres	260 to 499 acres	500 to 999 acres	1,000 to 1,999 acres	Total
Not applicable (No change)	138 14.67 69.00 21.30	15 1.59 7.50 28.30	18 1.91 9.00 16.82	3 0.32 1.50 21.43	6 0.64 3.00 21.43	11 1.17 5.50 34.38	0 0.00 0.00 0.00	4 0.43 2.00 22.22	0 0.00 0.00 0.00	5 0.53 2.50 27.78	0 0.00 0.00 0.00	0 0.00 0.00 0.00	200 21.25
No Impact	20 2.13 50.00 3.09	3 0.32 7.50 5.66	9 0.96 22.50 8.41	2 0.21 5.00 14.29	1 0.11 2.50 3.57	0 0.00 0.00 0.00	2 0.21 5.00 12.50	1 0.11 2.50 5.56	0 0.00 0.00 0.00	2 0.21 5.00 11.11	0 0.00 0.00 0.00	0 0.00 0.00 0.00	40 4.25
Slight Impact	101 10.73 65.16 15.59	11 1.17 7.10 20.75	21 2.23 13.55 19.63	2 0.21 1.29 14.29	5 0.53 3.23 17.86	4 0.43 2.58 12.50	5 0.53 3.23 31.25	1 0.11 0.65 5.56	1 0.11 0.65 50.00	1 0.11 0.65 5.56	3 0.32 1.94 75.00	0 0.00 0.00 0.00	155 16.47
Some Impact	231 24.55 74.52 35.65	16 1.70 5.16 30.19	23 2.44 7.42 21.50	7 0.74 2.26 50.00	9 0.96 2.90 32.14	8 0.85 2.58 25.00	4 0.43 1.29 25.00	5 0.53 1.61 27.78	0 0.00 0.00 0.00	5 0.53 1.61 27.78	1 0.11 0.32 25.00	1 0.11 0.32 100.00	310 32.94
Quite a bit of Impact	120 12.75 67.04 18.52	7 0.74 3.91 13.21	25 2.66 13.97 23.36	0 0.00 0.00 0.00	6 0.64 3.35 21.43	5 0.53 2.79 15.63	4 0.43 2.23 25.00	6 0.64 3.35 33.33	1 0.11 0.56 50.00	5 0.53 2.79 27.78	0 0.00 0.00 0.00	0 0.00 0.00 0.00	179 19.02
Great Impact	24 2.55 66.67 3.70	1 0.11 2.78 1.89	7 0.74 19.44 6.54	0 0.00 0.00 0.00	0 0.00 0.00 0.00	3 0.32 8.33 9.38	0 0.00 0.00 0.00	1 0.11 2.78 5.56	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	36 3.83
missing	14 1.49 66.67 2.16	0 0.00 0.00 0.00	4 0.43 19.05 3.74	0 0.00 0.00 0.00	1 0.11 4.76 3.57	1 0.11 4.76 3.13	1 0.11 4.76 6.25	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	21 2.23
Total	648 68.86	53 5.63	107 11.37	14 1.49	28 2.98	32 3.40	16 1.70	18 1.91	2 0.21	18 1.91	4 0.43	1 0.11	941 100.00

Statistics for Table of Q15A5 by Q3C

Statistic	DF	Value	Prob
Chi-Square	66	76.7620	0.1717
Likelihood Ratio Chi-Square	66	82.9949	0.0770
Mantel-Haenszel Chi-Square	1	0.0302	0.8621
Phi Coefficient		0.2856	
Contingency Coefficient		0.2746	
Cramer's V		0.1166	
WARNING: 70% of the cells have expected counts less than 5. Chi-Square may not be a valid test.			

Sample Size = 941

Frequency
Percent
Row Pct
Col Pct

Table of Q15A6 by Q3C

Q15A6(Improved crop yields (other than seed related traits))	Q3C(CRP acres in 2014)												
	0 acres	1 to 9 acres	10 to 49 acres	50 to 69 acres	70 to 99 acres	100 to 139 acres	140 to 179 acres	180 to 219 acres	220 to 259 acres	260 to 499 acres	500 to 999 acres	1,000 to 1,999 acres	Total
Not applicable (No change)	138 14.67 69.00 21.30	15 1.59 7.50 28.30	18 1.91 9.00 16.82	3 0.32 1.50 21.43	6 0.64 3.00 21.43	11 1.17 5.50 34.38	0 0.00 0.00 0.00	4 0.43 2.00 22.22	0 0.00 0.00 0.00	5 0.53 2.50 27.78	0 0.00 0.00 0.00	0 0.00 0.00 0.00	200 21.25
No Impact	7 0.74 53.85 1.08	1 0.11 7.69 1.89	2 0.21 15.38 1.87	1 0.11 7.69 7.14	1 0.11 7.69 3.57	0 0.00 0.00 0.00	1 0.11 7.69 6.25	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	13 1.38
Slight Impact	38 4.04 63.33 5.86	6 0.64 10.00 11.32	8 0.85 13.33 7.48	0 0.00 0.00 0.00	2 0.21 3.33 7.14	1 0.11 1.67 3.13	1 0.11 1.67 6.25	2 0.21 3.33 11.11	0 0.00 0.00 0.00	1 0.11 1.67 5.56	1 0.11 1.67 25.00	0 0.00 0.00 0.00	60 6.38
Some Impact	176 18.70 74.26 27.16	11 1.17 4.64 20.75	24 2.55 10.13 22.43	5 0.53 2.11 35.71	5 0.53 2.11 17.86	9 0.96 3.80 28.13	3 0.32 1.27 18.75	2 0.21 0.84 11.11	0 0.00 0.00 0.00	1 0.11 0.42 5.56	1 0.11 0.42 25.00	0 0.00 0.00 0.00	237 25.19
Quite a bit of Impact	233 24.76 66.95 35.96	19 2.02 5.46 35.85	41 4.36 11.78 38.32	5 0.53 1.44 35.71	13 1.38 3.74 46.43	7 0.74 2.01 21.88	7 0.74 2.01 43.75	9 0.96 2.59 50.00	2 0.21 0.57 100.00	9 0.96 2.59 50.00	2 0.21 0.57 50.00	1 0.11 0.29 100.00	348 36.98
Great Impact	44 4.68 67.69 6.79	1 0.11 1.54 1.89	10 1.06 15.38 9.35	0 0.00 0.00 0.00	0 0.00 0.00 0.00	3 0.32 4.62 9.38	4 0.43 6.15 25.00	1 0.11 1.54 5.56	0 0.00 0.00 0.00	2 0.21 3.08 11.11	0 0.00 0.00 0.00	0 0.00 0.00 0.00	65 6.91
missing	12 1.28 66.67 1.85	0 0.00 0.00 0.00	4 0.43 22.22 3.74	0 0.00 0.00 0.00	1 0.11 5.56 3.57	1 0.11 5.56 3.13	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	18 1.91
Total	648 68.86	53 5.63	107 11.37	14 1.49	28 2.98	32 3.40	16 1.70	18 1.91	2 0.21	18 1.91	4 0.43	1 0.11	941 100.00

Statistics for Table of Q15A6 by Q3C

Statistic	DF	Value	Prob
Chi-Square	66	61.8467	0.6221
Likelihood Ratio Chi-Square	66	68.0910	0.4059
Mantel-Haenszel Chi-Square	1	0.4705	0.4928
Phi Coefficient		0.2564	
Contingency Coefficient		0.2483	
Cramer's V		0.1047	

WARNING: 70% of the cells have expected counts less than 5. Chi-Square may not be a valid test.

Sample Size = 941

Frequency
Percent
Row Pct
Col Pct

Table of Q15A7 by Q3C

Q15A7(Development of more efficient cropping equipment)	Q3C(CRP acres in 2014)												
	0 acres	1 to 9 acres	10 to 49 acres	50 to 69 acres	70 to 99 acres	100 to 139 acres	140 to 179 acres	180 to 219 acres	220 to 259 acres	260 to 499 acres	500 to 999 acres	1,000 to 1,999 acres	Total
Not applicable (No change)	138 14.67 69.00 21.30	15 1.59 7.50 28.30	18 1.91 9.00 16.82	3 0.32 1.50 21.43	6 0.64 3.00 21.43	11 1.17 5.50 34.38	0 0.00 0.00 0.00	4 0.43 2.00 22.22	0 0.00 0.00 0.00	5 0.53 2.50 27.78	0 0.00 0.00 0.00	0 0.00 0.00 0.00	200 21.25
No Impact	17 1.81 51.52 2.62	2 0.21 6.06 3.77	8 0.85 24.24 7.48	1 0.11 3.03 7.14	1 0.11 3.03 3.57	1 0.11 3.03 3.13	0 0.00 0.00 0.00	1 0.11 3.03 5.56	0 0.00 0.00 0.00	1 0.11 3.03 5.56	1 0.11 3.03 25.00	0 0.00 0.00 0.00	33 3.51
Slight Impact	66 7.01 75.86 10.19	4 0.43 4.60 7.55	7 0.74 8.05 6.54	1 0.11 1.15 7.14	4 0.43 4.60 14.29	2 0.21 2.30 6.25	3 0.32 3.45 18.75	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	87 9.25
Some Impact	180 19.13 69.77 27.78	21 2.23 8.14 39.62	28 2.98 10.85 26.17	4 0.43 1.55 28.57	6 0.64 2.33 21.43	9 0.96 3.49 28.13	3 0.32 1.16 18.75	3 0.32 1.16 16.67	0 0.00 0.00 0.00	4 0.43 1.55 22.22	0 0.00 0.00 0.00	0 0.00 0.00 0.00	258 27.42
Quite a bit of Impact	190 20.19 67.62 29.32	9 0.96 3.20 16.98	32 3.40 11.39 29.91	5 0.53 1.78 35.71	8 0.85 2.85 28.57	7 0.74 2.49 21.88	8 0.85 2.85 50.00	9 0.96 3.20 50.00	2 0.21 0.71 100.00	7 0.74 2.49 38.89	3 0.32 1.07 75.00	1 0.11 0.36 100.00	281 29.86
Great Impact	43 4.57 70.49 6.64	2 0.21 3.28 3.77	10 1.06 16.39 9.35	0 0.00 0.00 0.00	1 0.11 1.64 3.57	1 0.11 1.64 3.13	2 0.21 3.28 12.50	1 0.11 1.64 5.56	0 0.00 0.00 0.00	1 0.11 1.64 5.56	0 0.00 0.00 0.00	0 0.00 0.00 0.00	61 6.48
missing	14 1.49 66.67 2.16	0 0.00 0.00 0.00	4 0.43 19.05 3.74	0 0.00 0.00 0.00	2 0.21 9.52 7.14	1 0.11 4.76 3.13	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	21 2.23
Total	648 68.86	53 5.63	107 11.37	14 1.49	28 2.98	32 3.40	16 1.70	18 1.91	2 0.21	18 1.91	4 0.43	1 0.11	941 100.00

Statistics for Table of Q15A7 by Q3C

Statistic	DF	Value	Prob
Chi-Square	66	67.1112	0.4387
Likelihood Ratio Chi-Square	66	73.1836	0.2542
Mantel-Haenszel Chi-Square	1	0.4651	0.4952
Phi Coefficient		0.2671	
Contingency Coefficient		0.2580	
Cramer's V		0.1090	

WARNING: 73% of the cells have expected counts less than 5. Chi-Square may not be a valid test.

Sample Size = 941

Frequency
Percent
Row Pct
Col Pct

Table of Q15A8 by Q3C

Q15A8(Labor availability problems)	Q3C(CRP acres in 2014)												
	0 acres	1 to 9 acres	10 to 49 acres	50 to 69 acres	70 to 99 acres	100 to 139 acres	140 to 179 acres	180 to 219 acres	220 to 259 acres	260 to 499 acres	500 to 999 acres	1,000 to 1,999 acres	Total
Not applicable (No change)	138 14.67 69.00 21.30	15 1.59 7.50 28.30	18 1.91 9.00 16.82	3 0.32 1.50 21.43	6 0.64 3.00 21.43	11 1.17 5.50 34.38	0 0.00 0.00 0.00	4 0.43 2.00 22.22	0 0.00 0.00 0.00	5 0.53 2.50 27.78	0 0.00 0.00 0.00	0 0.00 0.00 0.00	200 21.25
No Impact	113 12.01 68.48 17.44	9 0.96 5.45 16.98	22 2.34 13.33 20.56	5 0.53 3.03 35.71	3 0.32 1.82 10.71	4 0.43 2.42 12.50	1 0.11 0.61 6.25	3 0.32 1.82 16.67	1 0.11 0.61 50.00	3 0.32 1.82 16.67	1 0.11 0.61 25.00	0 0.00 0.00 0.00	165 17.53
Slight Impact	151 16.05 73.66 23.30	15 1.59 7.32 28.30	21 2.23 10.24 19.63	0 0.00 0.00 0.00	6 0.64 2.93 21.43	5 0.53 2.44 15.63	3 0.32 1.46 18.75	2 0.21 0.98 11.11	0 0.00 0.00 0.00	1 0.11 0.49 5.56	1 0.11 0.49 25.00	0 0.00 0.00 0.00	205 21.79
Some Impact	159 16.90 69.74 24.54	8 0.85 3.51 15.09	21 2.23 9.21 19.63	4 0.43 1.75 28.57	9 0.96 3.95 32.14	8 0.85 3.51 25.00	8 0.85 3.51 50.00	4 0.43 1.75 22.22	1 0.11 0.44 50.00	5 0.53 2.19 27.78	1 0.11 0.44 25.00	0 0.00 0.00 0.00	228 24.23
Quite a bit of Impact	51 5.42 54.84 7.87	6 0.64 6.45 11.32	17 1.81 18.28 15.89	1 0.11 1.08 7.14	3 0.32 3.23 10.71	3 0.32 3.23 9.38	4 0.43 4.30 25.00	4 0.43 4.30 22.22	0 0.00 0.00 0.00	2 0.21 2.15 11.11	1 0.11 1.08 25.00	1 0.11 1.08 100.00	93 9.88
Great Impact	22 2.34 73.33 3.40	0 0.00 0.00 0.00	4 0.43 13.33 3.74	1 0.11 3.33 7.14	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	1 0.11 3.33 5.56	0 0.00 0.00 0.00	2 0.21 6.67 11.11	0 0.00 0.00 0.00	0 0.00 0.00 0.00	30 3.19
missing	14 1.49 70.00 2.16	0 0.00 0.00 0.00	4 0.43 20.00 3.74	0 0.00 0.00 0.00	1 0.11 5.00 3.57	1 0.11 5.00 3.13	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	20 2.13
Total	648 68.86	53 5.63	107 11.37	14 1.49	28 2.98	32 3.40	16 1.70	18 1.91	2 0.21	18 1.91	4 0.43	1 0.11	941 100.00

Statistics for Table of Q15A8 by Q3C

Statistic	DF	Value	Prob
Chi-Square	66	71.6503	0.2959
Likelihood Ratio Chi-Square	66	77.2113	0.1629
Mantel-Haenszel Chi-Square	1	1.7641	0.1841

Phi Coefficient		0.2759	
Contingency Coefficient		0.2660	
Cramer's V		0.1127	
WARNING: 71% of the cells have expected counts less than 5. Chi-Square may not be a valid test.			

Sample Size = 941

Frequency
Percent
Row Pct
Col Pct

Table of Q15A9 by Q3C

Q15A9(Improving wildlife habitat)	Q3C(CRP acres in 2014)												
	0 acres	1 to 9 acres	10 to 49 acres	50 to 69 acres	70 to 99 acres	100 to 139 acres	140 to 179 acres	180 to 219 acres	220 to 259 acres	260 to 499 acres	500 to 999 acres	1,000 to 1,999 acres	Total
Not applicable (No change)	138 14.67 69.00 21.30	15 1.59 7.50 28.30	18 1.91 9.00 16.82	3 0.32 1.50 21.43	6 0.64 3.00 21.43	11 1.17 5.50 34.38	0 0.00 0.00 0.00	4 0.43 2.00 22.22	0 0.00 0.00 0.00	5 0.53 2.50 27.78	0 0.00 0.00 0.00	0 0.00 0.00 0.00	200 21.25
No Impact	184 19.55 68.40 28.40	16 1.70 5.95 30.19	32 3.40 11.90 29.91	2 0.21 0.74 14.29	6 0.64 2.23 21.43	11 1.17 4.09 34.38	5 0.53 1.86 31.25	5 0.53 1.86 27.78	1 0.11 0.37 50.00	4 0.43 1.49 22.22	3 0.32 1.12 75.00	0 0.00 0.00 0.00	269 28.59
Slight Impact	182 19.34 71.09 28.09	16 1.70 6.25 30.19	22 2.34 8.59 20.56	3 0.32 1.17 21.43	10 1.06 3.91 35.71	6 0.64 2.34 18.75	4 0.43 1.56 25.00	6 0.64 2.34 33.33	1 0.11 0.39 50.00	5 0.53 1.95 27.78	1 0.11 0.39 25.00	0 0.00 0.00 0.00	256 27.21
Some Impact	102 10.84 66.23 15.74	6 0.64 3.90 11.32	20 2.13 12.99 18.69	5 0.53 3.25 35.71	5 0.53 3.25 17.86	3 0.32 1.95 9.38	5 0.53 3.25 31.25	3 0.32 1.95 16.67	0 0.00 0.00 0.00	4 0.43 2.60 22.22	0 0.00 0.00 0.00	1 0.11 0.65 100.00	154 16.37
Quite a bit of Impact	16 1.70 66.67 2.47	0 0.00 0.00 0.00	8 0.85 33.33 7.48	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	24 2.55
Great Impact	10 1.06 71.43 1.54	0 0.00 0.00 0.00	3 0.32 21.43 2.80	1 0.11 7.14 7.14	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	14 1.49
missing	16 1.70 66.67 2.47	0 0.00 0.00 0.00	4 0.43 16.67 3.74	0 0.00 0.00 0.00	1 0.11 4.17 3.57	1 0.11 4.17 3.13	2 0.21 8.33 12.50	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	24 2.55
Total	648 68.86	53 5.63	107 11.37	14 1.49	28 2.98	32 3.40	16 1.70	18 1.91	2 0.21	18 1.91	4 0.43	1 0.11	941 100.00

Statistics for Table of Q15A9 by Q3C

Statistic	DF	Value	Prob
Chi-Square	66	65.6676	0.4884
Likelihood Ratio Chi-Square	66	69.3658	0.3647
Mantel-Haenszel Chi-Square	1	0.0084	0.9269
Phi Coefficient		0.2642	
Contingency Coefficient		0.2554	
Cramer's V		0.1078	
WARNING: 71% of the cells have expected counts less than 5. Chi-Square may not be a valid test.			

Sample Size = 941

Frequency
Percent
Row Pct
Col Pct

Table of Q15A10 by Q3C

Q15A10(Changing weather /climate patterns)	Q3C(CRP acres in 2014)												
	0 acres	1 to 9 acres	10 to 49 acres	50 to 69 acres	70 to 99 acres	100 to 139 acres	140 to 179 acres	180 to 219 acres	220 to 259 acres	260 to 499 acres	500 to 999 acres	1,000 to 1,999 acres	Total
Not applicable (No change)	138 14.67 69.00 21.30	15 1.59 7.50 28.30	18 1.91 9.00 16.82	3 0.32 1.50 21.43	6 0.64 3.00 21.43	11 1.17 5.50 34.38	0 0.00 0.00 0.00	4 0.43 2.00 22.22	0 0.00 0.00 0.00	5 0.53 2.50 27.78	0 0.00 0.00 0.00	0 0.00 0.00 0.00	200 21.25
No Impact	97 10.31 67.36 14.97	12 1.28 8.33 22.64	18 1.91 12.50 16.82	2 0.21 1.39 14.29	1 0.11 0.69 3.57	5 0.53 3.47 15.63	4 0.43 2.78 25.00	1 0.11 0.69 5.56	0 0.00 0.00 0.00	3 0.32 2.08 16.67	1 0.11 0.69 25.00	0 0.00 0.00 0.00	144 15.30
Slight Impact	104 11.05 71.23 16.05	12 1.28 8.22 22.64	14 1.49 9.59 13.08	1 0.11 0.68 7.14	8 0.85 5.48 28.57	2 0.21 1.37 6.25	1 0.11 0.68 6.25	2 0.21 1.37 11.11	0 0.00 0.00 0.00	2 0.21 1.37 11.11	0 0.00 0.00 0.00	0 0.00 0.00 0.00	146 15.52
Some Impact	184 19.55 71.88 28.40	9 0.96 3.52 16.98	26 2.76 10.16 24.30	6 0.64 2.34 42.86	8 0.85 3.13 28.57	11 1.17 4.30 34.38	4 0.43 1.56 25.00	3 0.32 1.17 16.67	0 0.00 0.00 0.00	5 0.53 1.95 27.78	0 0.00 0.00 0.00	0 0.00 0.00 0.00	256 27.21
Quite a bit of Impact	77 8.18 63.64 11.88	3 0.32 2.48 5.66	18 1.91 14.88 16.82	2 0.21 1.65 14.29	3 0.32 2.48 10.71	1 0.11 0.83 3.13	4 0.43 3.31 25.00	6 0.64 4.96 33.33	2 0.21 1.65 100.00	1 0.11 0.83 5.56	3 0.32 2.48 75.00	1 0.11 0.83 100.00	121 12.86
Great Impact	35 3.72 64.81 5.40	2 0.21 3.70 3.77	8 0.85 14.81 7.48	0 0.00 0.00 0.00	1 0.11 1.85 3.57	1 0.11 1.85 3.13	3 0.32 5.56 18.75	2 0.21 3.70 11.11	0 0.00 0.00 0.00	2 0.21 3.70 11.11	0 0.00 0.00 0.00	0 0.00 0.00 0.00	54 5.74
missing	13 1.38 65.00 2.01	0 0.00 0.00 0.00	5 0.53 25.00 4.67	0 0.00 0.00 0.00	1 0.11 5.00 3.57	1 0.11 5.00 3.13	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	20 2.13
Total	648 68.86	53 5.63	107 11.37	14 1.49	28 2.98	32 3.40	16 1.70	18 1.91	2 0.21	18 1.91	4 0.43	1 0.11	941 100.00

Statistics for Table of Q15A10 by Q3C

Statistic	DF	Value	Prob

Chi-Square	66	95.3210	0.0106
Likelihood Ratio Chi-Square	66	88.0080	0.0365
Mantel-Haenszel Chi-Square	1	1.9185	0.1660
Phi Coefficient		0.3183	
Contingency Coefficient		0.3033	
Cramer's V		0.1299	
WARNING: 74% of the cells have expected counts less than 5. Chi-Square may not be a valid test.			

Sample Size = 941