**Data** corncarryover;

Infile 'C:\Users\Smith\Desktop\Thesis\Carryover\Data\Corn\Corn carryover SAS.csv' Firstobs=**2** dlm=',' lrecl=**40960**;

Input year block trt oatinjury ryeinjury crimsoninjury bruiserinjury radishinjury kinginjury oatdrywt ryedrywt crimsondrywt bruiserdrywt radishdrywt kingdrywt oatndvi ryendvi crimsonndvi bruiserndvi radishndvi kingndvi oatcover ryecover crimsoncover bruisercover radishcover kingcover ryespringndvi ryespringdrywt ryespringcover;

**PROC** **PRINT** DATA= corncarryover;

**RUN**;

**Data** corncarryover2;

set corncarryover;

logoatdrywt=log(oatdrywt);

logryedrywt=log(ryedrywt);

logcrimsondrywt=log(crimsondrywt);

logbruiserdrywt=log(bruiserdrywt);

logradishdrywt=log(radishdrywt);

logkingdrywt=log(kingdrywt);

logoatndvi=log(oatndvi);

logryendvi=log(ryendvi);

logcrimsonndvi=log(crimsonndvi);

logbruiserndvi=log(bruiserndvi);

logradishndvi=log(radishndvi);

logkingndvi=log(kingndvi);

logoatcover=log(oatcover);

logryecover=log(ryecover);

logcrimsoncover=log(crimsoncover);

logbruisercover=log(bruisercover);

logradishcover=log(radishcover);

logkingcover=log(kingcover);

logryespringndvi=log(ryespringndvi);

logryespringdrywt=log(ryespringdrywt);

logryespringcover=log(ryespringcover);

Run;

**Data** corncarryover2013;

set corncarryover2;

if year='1';

Run;

**Data** corncarryover2014;

set corncarryover2;

if year = '2';

Run;

**proc** **mixed** data= corncarryover2014;

class block trt;

model oatdrywt = trt/outp=oatdrywt2014;

random block;

lsmeans trt /pdiff adj=tukey;

**RUN**;

**Proc** **univariate** normal plot data=oatdrywt2014;

var resid;

**Run**;

**Proc** **plot** data = oatdrywt2014;

plot resid \* pred / vref=**0**;

**Run**; **Quit**;

**proc** **mixed** data= corncarryover2013;

class block trt;

model oatdrywt = trt/outp=oatdrywt2013;

random block;

lsmeans trt /pdiff adj=tukey;

**RUN**;

**Proc** **univariate** normal plot data=oatdrywt2013;

var resid;

**Run**;

**Proc** **plot** data = oatdrywt2013;

plot resid \* pred / vref=**0**;

**Run**; **Quit**;

**proc** **mixed** data= corncarryover2014;

class block trt;

model logoatdrywt = trt/outp=logoatdrywt2014;

random block;

lsmeans trt /pdiff adj=tukey;

**RUN**;

**Proc** **univariate** normal plot data=logoatdrywt2014;

var resid;

**Run**;

**Proc** **plot** data = logoatdrywt2014;

plot resid \* pred / vref=**0**;

**Run**; **Quit**;

**proc** **mixed** data= corncarryover2013;

class block trt;

model logoatdrywt = trt/outp=logoatdrywt2013;

random block;

lsmeans trt /pdiff adj=tukey;

**RUN**;

**Proc** **univariate** normal plot data=logoatdrywt2013;

var resid;

**Run**;

**Proc** **plot** data = logoatdrywt2013;

plot resid \* pred / vref=**0**;

**Run**; **Quit**;

**proc** **mixed** data= corncarryover2014;

class block trt;

model ryedrywt = trt/outp=ryedrywt2014;

random block;

lsmeans trt /pdiff adj=tukey;

**RUN**;

**Proc** **univariate** normal plot data=ryedrywt2014;

var resid;

**Run**;

**Proc** **plot** data = ryedrywt2014;

plot resid \* pred / vref=**0**;

**Run**; **Quit**;

**proc** **mixed** data= corncarryover2013;

class block trt;

model ryedrywt = trt/outp=ryedrywt2013;

random block;

lsmeans trt /pdiff adj=tukey;

**RUN**;

**Proc** **univariate** normal plot data=ryedrywt2013;

var resid;

**Run**;

**Proc** **plot** data = ryedrywt2013;

plot resid \* pred / vref=**0**;

**Run**; **Quit**;

**proc** **mixed** data= corncarryover2014;

class block trt;

model logryedrywt = trt/outp=logryedrywt2014;

random block;

lsmeans trt /pdiff adj=tukey;

**RUN**;

**Proc** **univariate** normal plot data=logryedrywt2014;

var resid;

**Run**;

**Proc** **plot** data = logryedrywt2014;

plot resid \* pred / vref=**0**;

**Run**; **Quit**;

**proc** **mixed** data= corncarryover2013;

class block trt;

model logryedrywt = trt/outp=logryedrywt2013;

random block;

lsmeans trt /pdiff adj=tukey;

**RUN**;

**Proc** **univariate** normal plot data=logryedrywt2013;

var resid;

**Run**;

**Proc** **plot** data = logryedrywt2013;

plot resid \* pred / vref=**0**;

**Run**; **Quit**;

**proc** **mixed** data= corncarryover2014;

class block trt;

model radishdrywt = trt/outp=radishdrywt2014;

random block;

lsmeans trt /pdiff adj=tukey;

**RUN**;

**Proc** **univariate** normal plot data=radishdrywt2014;

var resid;

**Run**;

**Proc** **plot** data = radishdrywt2014;

plot resid \* pred / vref=**0**;

**Run**; **Quit**;

**proc** **mixed** data= corncarryover2013;

class block trt;

model radishdrywt = trt/outp=radishdrywt2013;

random block;

lsmeans trt /pdiff adj=tukey;

**RUN**;

**Proc** **univariate** normal plot data=radishdrywt2013;

var resid;

**Run**;

**Proc** **plot** data = radishdrywt2013;

plot resid \* pred / vref=**0**;

**Run**; **Quit**;

**proc** **mixed** data= corncarryover2014;

class block trt;

model logradishdrywt = trt/outp=logradishdrywt2014;

random block;

lsmeans trt /pdiff adj=tukey;

**RUN**;

**Proc** **univariate** normal plot data=logradishdrywt2014;

var resid;

**Run**;

**Proc** **plot** data = logradishdrywt2014;

plot resid \* pred / vref=**0**;

**Run**; **Quit**;

**proc** **mixed** data= corncarryover2013;

class block trt;

model logradishdrywt = trt/outp=logradishdrywt2013;

random block;

lsmeans trt /pdiff adj=tukey;

**RUN**;

**Proc** **univariate** normal plot data=logradishdrywt2013;

var resid;

**Run**;

**Proc** **plot** data = logradishdrywt2013;

plot resid \* pred / vref=**0**;

**Run**; **Quit**;

**proc** **mixed** data= corncarryover2014;

class block trt;

model crimsondrywt = trt/outp=crimsondrywt2014;

random block;

lsmeans trt /pdiff adj=tukey;

**RUN**;

**Proc** **univariate** normal plot data=crimsondrywt2014;

var resid;

**Run**;

**Proc** **plot** data = crimsondrywt2014;

plot resid \* pred / vref=**0**;

**Run**; **Quit**;

**proc** **mixed** data= corncarryover2013;

class block trt;

model crimsondrywt = trt/outp=crimsondrywt2013;

random block;

lsmeans trt /pdiff adj=tukey;

**RUN**;

**Proc** **univariate** normal plot data=crimsondrywt2013;

var resid;

**Run**;

**Proc** **plot** data = crimsondrywt2013;

plot resid \* pred / vref=**0**;

**Run**; **Quit**;

**proc** **mixed** data= corncarryover2014;

class block trt;

model logcrimsondrywt = trt/outp=logcrimsondrywt2014;

random block;

lsmeans trt /pdiff adj=tukey;

**RUN**;

**Proc** **univariate** normal plot data=logcrimsondrywt2014;

var resid;

**Run**;

**Proc** **plot** data = logcrimsondrywt2014;

plot resid \* pred / vref=**0**;

**Run**; **Quit**;

**proc** **mixed** data= corncarryover2013;

class block trt;

model logcrimsondrywt = trt/outp=logcrimsondrywt2013;

random block;

lsmeans trt /pdiff adj=tukey;

**RUN**;

**Proc** **univariate** normal plot data=logcrimsondrywt2013;

var resid;

**Run**;

**Proc** **plot** data = logcrimsondrywt2013;

plot resid \* pred / vref=**0**;

**Run**; **Quit**;

**proc** **mixed** data= corncarryover2014;

class block trt;

model kingdrywt = trt/outp=kingdrywt2014;

random block;

lsmeans trt /pdiff adj=tukey;

**RUN**;

**Proc** **univariate** normal plot data=kingdrywt2014;

var resid;

**Run**;

**Proc** **plot** data = kingdrywt2014;

plot resid \* pred / vref=**0**;

**Run**; **Quit**;

**proc** **mixed** data= corncarryover2013;

class block trt;

model kingdrywt = trt/outp=kingdrywt2013;

random block;

lsmeans trt /pdiff adj=tukey;

**RUN**;

**Proc** **univariate** normal plot data=kingdrywt2013;

var resid;

**Run**;

**Proc** **plot** data = kingdrywt2013;

plot resid \* pred / vref=**0**;

**Run**; **Quit**;

**proc** **mixed** data= corncarryover2014;

class block trt;

model logkingdrywt = trt/outp=logkingdrywt2014;

random block;

lsmeans trt /pdiff adj=tukey;

**RUN**;

**Proc** **univariate** normal plot data=logkingdrywt2014;

var resid;

**Run**;

**Proc** **plot** data = logkingdrywt2014;

plot resid \* pred / vref=**0**;

**Run**; **Quit**;

**proc** **mixed** data= corncarryover2013;

class block trt;

model logkingdrywt = trt/outp=logkingdrywt2013;

random block;

lsmeans trt /pdiff adj=tukey;

**RUN**;

**Proc** **univariate** normal plot data=logkingdrywt2013;

var resid;

**Run**;

**Proc** **plot** data = logkingdrywt2013;

plot resid \* pred / vref=**0**;

**Run**; **Quit**;

**proc** **mixed** data= corncarryover2014;

class block trt;

model bruiserdrywt = trt/outp=bruiserdrywt2014;

random block;

lsmeans trt /pdiff adj=tukey;

**RUN**;

**Proc** **univariate** normal plot data=bruiserdrywt2014;

var resid;

**Run**;

**Proc** **plot** data = bruiserdrywt2014;

plot resid \* pred / vref=**0**;

**Run**; **Quit**;

**proc** **mixed** data= corncarryover2013;

class block trt;

model bruiserdrywt = trt/outp=bruiserdrywt2013;

random block;

lsmeans trt /pdiff adj=tukey;

**RUN**;

**Proc** **univariate** normal plot data=bruiserdrywt2013;

var resid;

**Run**;

**Proc** **plot** data = bruiserdrywt2013;

plot resid \* pred / vref=**0**;

**Run**; **Quit**;

**proc** **mixed** data= corncarryover2014;

class block trt;

model logbruiserdrywt = trt/outp=logbruiserdrywt2014;

random block;

lsmeans trt /pdiff adj=tukey;

**RUN**;

**Proc** **univariate** normal plot data=logbruiserdrywt2014;

var resid;

**Run**;

**Proc** **plot** data = logbruiserdrywt2014;

plot resid \* pred / vref=**0**;

**Run**; **Quit**;

**proc** **mixed** data= corncarryover2013;

class block trt;

model logbruiserdrywt = trt/outp=logbruiserdrywt2013;

random block;

lsmeans trt /pdiff adj=tukey;

**RUN**;

**Proc** **univariate** normal plot data=logbruiserdrywt2013;

var resid;

**Run**;

**Proc** **plot** data = logbruiserdrywt2013;

plot resid \* pred / vref=**0**;

**Run**; **Quit**;

**proc** **mixed** data= corncarryover2014;

class block trt;

model ryespringdrywt = trt/outp=ryespringdrywt2014;

random block;

lsmeans trt /pdiff adj=tukey;

**RUN**;

**Proc** **univariate** normal plot data=ryespringdrywt2014;

var resid;

**Run**;

**Proc** **plot** data = ryespringdrywt2014;

plot resid \* pred / vref=**0**;

**Run**; **Quit**;

**proc** **mixed** data= corncarryover2013;

class block trt;

model ryespringdrywt = trt/outp=ryespringdrywt2013;

random block;

lsmeans trt /pdiff adj=tukey;

**RUN**;

**Proc** **univariate** normal plot data=ryespringdrywt2013;

var resid;

**Run**;

**Proc** **plot** data = ryespringdrywt2013;

plot resid \* pred / vref=**0**;

**Run**; **Quit**;

**proc** **mixed** data= corncarryover2014;

class block trt;

model logryespringdrywt = trt/outp=logryespringdrywt2014;

random block;

lsmeans trt /pdiff adj=tukey;

**RUN**;

**Proc** **univariate** normal plot data=logryespringdrywt2014;

var resid;

**Run**;

**Proc** **plot** data = logryespringdrywt2014;

plot resid \* pred / vref=**0**;

**Run**; **Quit**;

**proc** **mixed** data= corncarryover2013;

class block trt;

model logryespringdrywt = trt/outp=logryespringdrywt2013;

random block;

lsmeans trt /pdiff adj=tukey;

**RUN**;

**Proc** **univariate** normal plot data=logryespringdrywt2013;

var resid;

**Run**;

**Proc** **plot** data = logryespringdrywt2013;

plot resid \* pred / vref=**0**;

**Run**; **Quit**;

**proc** **mixed** data= corncarryover2014;

class block trt;

model oatndvi = trt/outp=oatndvi2014;

random block;

lsmeans trt /pdiff adj=tukey;

**RUN**;

**Proc** **univariate** normal plot data=oatndvi2014;

var resid;

**Run**;

**Proc** **plot** data = oatndvi2014;

plot resid \* pred / vref=**0**;

**Run**; **Quit**;

**proc** **mixed** data= corncarryover2013;

class block trt;

model oatndvi = trt/outp=oatndvi2013;

random block;

lsmeans trt /pdiff adj=tukey;

**RUN**;

**Proc** **univariate** normal plot data=oatndvi2013;

var resid;

**Run**;

**Proc** **plot** data = oatndvi2013;

plot resid \* pred / vref=**0**;

**Run**; **Quit**;

**proc** **mixed** data= corncarryover2014;

class block trt;

model logoatndvi = trt/outp=logoatndvi2014;

random block;

lsmeans trt /pdiff adj=tukey;

**RUN**;

**Proc** **univariate** normal plot data=logoatndvi2014;

var resid;

**Run**;

**Proc** **plot** data = logoatndvi2014;

plot resid \* pred / vref=**0**;

**Run**; **Quit**;

**proc** **mixed** data= corncarryover2013;

class block trt;

model logoatndvi = trt/outp=logoatndvi2013;

random block;

lsmeans trt /pdiff adj=tukey;

**RUN**;

**Proc** **univariate** normal plot data=logoatndvi2013;

var resid;

**Run**;

**Proc** **plot** data = logoatndvi2013;

plot resid \* pred / vref=**0**;

**Run**; **Quit**;

**proc** **mixed** data= corncarryover2014;

class block trt;

model ryendvi = trt/outp=ryendvi2014;

random block;

lsmeans trt /pdiff adj=tukey;

**RUN**;

**Proc** **univariate** normal plot data=ryendvi2014;

var resid;

**Run**;

**Proc** **plot** data = ryendvi2014;

plot resid \* pred / vref=**0**;

**Run**; **Quit**;

**proc** **mixed** data= corncarryover2013;

class block trt;

model ryendvi = trt/outp=ryendvi2013;

random block;

lsmeans trt /pdiff adj=tukey;

**RUN**;

**Proc** **univariate** normal plot data=ryendvi2013;

var resid;

**Run**;

**Proc** **plot** data = ryendvi2013;

plot resid \* pred / vref=**0**;

**Run**; **Quit**;

**proc** **mixed** data= corncarryover2014;

class block trt;

model logryendvi = trt/outp=logryendvi2014;

random block;

lsmeans trt /pdiff adj=tukey;

**RUN**;

**Proc** **univariate** normal plot data=logryendvi2014;

var resid;

**Run**;

**Proc** **plot** data = logryendvi2014;

plot resid \* pred / vref=**0**;

**Run**; **Quit**;

**proc** **mixed** data= corncarryover2013;

class block trt;

model logryendvi = trt/outp=logryendvi2013;

random block;

lsmeans trt /pdiff adj=tukey;

**RUN**;

**Proc** **univariate** normal plot data=logryendvi2013;

var resid;

**Run**;

**Proc** **plot** data = logryendvi2013;

plot resid \* pred / vref=**0**;

**Run**; **Quit**;

**proc** **mixed** data= corncarryover2014;

class block trt;

model radishndvi = trt/outp=radishndvi2014;

random block;

lsmeans trt /pdiff adj=tukey;

**RUN**;

**Proc** **univariate** normal plot data=radishndvi2014;

var resid;

**Run**;

**Proc** **plot** data = radishndvi2014;

plot resid \* pred / vref=**0**;

**Run**; **Quit**;

**proc** **mixed** data= corncarryover2013;

class block trt;

model radishndvi = trt/outp=radishndvi2013;

random block;

lsmeans trt /pdiff adj=tukey;

**RUN**;

**Proc** **univariate** normal plot data=radishndvi2013;

var resid;

**Run**;

**Proc** **plot** data = radishndvi2013;

plot resid \* pred / vref=**0**;

**Run**; **Quit**;

**proc** **mixed** data= corncarryover2014;

class block trt;

model logradishndvi = trt/outp=logradishndvi2014;

random block;

lsmeans trt /pdiff adj=tukey;

**RUN**;

**Proc** **univariate** normal plot data=logradishndvi2014;

var resid;

**Run**;

**Proc** **plot** data = logradishndvi2014;

plot resid \* pred / vref=**0**;

**Run**; **Quit**;

**proc** **mixed** data= corncarryover2013;

class block trt;

model logradishndvi = trt/outp=logradishndvi2013;

random block;

lsmeans trt /pdiff adj=tukey;

**RUN**;

**Proc** **univariate** normal plot data=logradishndvi2013;

var resid;

**Run**;

**Proc** **plot** data = logradishndvi2013;

plot resid \* pred / vref=**0**;

**Run**; **Quit**;

**proc** **mixed** data= corncarryover2014;

class block trt;

model crimsonndvi = trt/outp=crimsonndvi2014;

random block;

lsmeans trt /pdiff adj=tukey;

**RUN**;

**Proc** **univariate** normal plot data=crimsonndvi2014;

var resid;

**Run**;

**Proc** **plot** data = crimsonndvi2014;

plot resid \* pred / vref=**0**;

**Run**; **Quit**;

**proc** **mixed** data= corncarryover2013;

class block trt;

model crimsonndvi = trt/outp=crimsonndvi2013;

random block;

lsmeans trt /pdiff adj=tukey;

**RUN**;

**Proc** **univariate** normal plot data=crimsonndvi2013;

var resid;

**Run**;

**Proc** **plot** data = crimsonndvi2013;

plot resid \* pred / vref=**0**;

**Run**; **Quit**;

**proc** **mixed** data= corncarryover2014;

class block trt;

model logcrimsonndvi = trt/outp=logcrimsonndvi2014;

random block;

lsmeans trt /pdiff adj=tukey;

**RUN**;

**Proc** **univariate** normal plot data=logcrimsonndvi2014;

var resid;

**Run**;

**Proc** **plot** data = logcrimsonndvi2014;

plot resid \* pred / vref=**0**;

**Run**; **Quit**;

**proc** **mixed** data= corncarryover2013;

class block trt;

model logcrimsonndvi = trt/outp=logcrimsonndvi2013;

random block;

lsmeans trt /pdiff adj=tukey;

**RUN**;

**Proc** **univariate** normal plot data=logcrimsonndvi2013;

var resid;

**Run**;

**Proc** **plot** data = logcrimsonndvi2013;

plot resid \* pred / vref=**0**;

**Run**; **Quit**;

**proc** **mixed** data= corncarryover2014;

class block trt;

model kingndvi = trt/outp=kingndvi2014;

random block;

lsmeans trt /pdiff adj=tukey;

**RUN**;

**Proc** **univariate** normal plot data=kingndvi2014;

var resid;

**Run**;

**Proc** **plot** data = kingndvi2014;

plot resid \* pred / vref=**0**;

**Run**; **Quit**;

**proc** **mixed** data= corncarryover2013;

class block trt;

model kingndvi = trt/outp=kingndvi2013;

random block;

lsmeans trt /pdiff adj=tukey;

**RUN**;

**Proc** **univariate** normal plot data=kingndvi2013;

var resid;

**Run**;

**Proc** **plot** data = kingndvi2013;

plot resid \* pred / vref=**0**;

**Run**; **Quit**;

**proc** **mixed** data= corncarryover2014;

class block trt;

model logkingndvi = trt/outp=logkingndvi2014;

random block;

lsmeans trt /pdiff adj=tukey;

**RUN**;

**Proc** **univariate** normal plot data=logkingndvi2014;

var resid;

**Run**;

**Proc** **plot** data = logkingndvi2014;

plot resid \* pred / vref=**0**;

**Run**; **Quit**;

**proc** **mixed** data= corncarryover2013;

class block trt;

model logkingndvi = trt/outp=logkingndvi2013;

random block;

lsmeans trt /pdiff adj=tukey;

**RUN**;

**Proc** **univariate** normal plot data=logkingndvi2013;

var resid;

**Run**;

**Proc** **plot** data = logkingndvi2013;

plot resid \* pred / vref=**0**;

**Run**; **Quit**;

**proc** **mixed** data= corncarryover2014;

class block trt;

model bruiserndvi = trt/outp=bruiserndvi2014;

random block;

lsmeans trt /pdiff adj=tukey;

**RUN**;

**Proc** **univariate** normal plot data=bruiserndvi2014;

var resid;

**Run**;

**Proc** **plot** data = bruiserndvi2014;

plot resid \* pred / vref=**0**;

**Run**; **Quit**;

**proc** **mixed** data= corncarryover2013;

class block trt;

model bruiserndvi = trt/outp=bruiserndvi2013;

random block;

lsmeans trt /pdiff adj=tukey;

**RUN**;

**Proc** **univariate** normal plot data=bruiserndvi2013;

var resid;

**Run**;

**Proc** **plot** data = bruiserndvi2013;

plot resid \* pred / vref=**0**;

**Run**; **Quit**;

**proc** **mixed** data= corncarryover2014;

class block trt;

model logbruiserndvi = trt/outp=logbruiserndvi2014;

random block;

lsmeans trt /pdiff adj=tukey;

**RUN**;

**Proc** **univariate** normal plot data=logbruiserndvi2014;

var resid;

**Run**;

**Proc** **plot** data = logbruiserndvi2014;

plot resid \* pred / vref=**0**;

**Run**; **Quit**;

**proc** **mixed** data= corncarryover2013;

class block trt;

model logbruiserndvi = trt/outp=logbruiserndvi2013;

random block;

lsmeans trt /pdiff adj=tukey;

**RUN**;

**Proc** **univariate** normal plot data=logbruiserndvi2013;

var resid;

**Run**;

**Proc** **plot** data = logbruiserndvi2013;

plot resid \* pred / vref=**0**;

**Run**; **Quit**;

**proc** **mixed** data= corncarryover2014;

class block trt;

model ryespringndvi = trt/outp=ryespringndvi2014;

random block;

lsmeans trt /pdiff adj=tukey;

**RUN**;

**Proc** **univariate** normal plot data=ryespringndvi2014;

var resid;

**Run**;

**Proc** **plot** data = ryespringndvi2014;

plot resid \* pred / vref=**0**;

**Run**; **Quit**;

**proc** **mixed** data= corncarryover2013;

class block trt;

model ryespringndvi = trt/outp=ryespringndvi2013;

random block;

lsmeans trt /pdiff adj=tukey;

**RUN**;

**Proc** **univariate** normal plot data=ryespringndvi2013;

var resid;

**Run**;

**Proc** **plot** data = ryespringndvi2013;

plot resid \* pred / vref=**0**;

**Run**; **Quit**;

**proc** **mixed** data= corncarryover2014;

class block trt;

model logryespringndvi = trt/outp=logryespringndvi2014;

random block;

lsmeans trt /pdiff adj=tukey;

**RUN**;

**Proc** **univariate** normal plot data=logryespringndvi2014;

var resid;

**Run**;

**Proc** **plot** data = logryespringndvi2014;

plot resid \* pred / vref=**0**;

**Run**; **Quit**;

**proc** **mixed** data= corncarryover2013;

class block trt;

model logryespringndvi = trt/outp=logryespringndvi2013;

random block;

lsmeans trt /pdiff adj=tukey;

**RUN**;

**Proc** **univariate** normal plot data=logryespringndvi2013;

var resid;

**Run**;

**Proc** **plot** data = logryespringndvi2013;

plot resid \* pred / vref=**0**;

**Run**; **Quit**;

**proc** **mixed** data= corncarryover2014;

class block trt;

model oatcover = trt/outp=oatcover2014;

random block;

lsmeans trt /pdiff adj=tukey;

**RUN**;

**Proc** **univariate** normal plot data=oatcover2014;

var resid;

**Run**;

**Proc** **plot** data = oatcover2014;

plot resid \* pred / vref=**0**;

**Run**; **Quit**;

**proc** **mixed** data= corncarryover2013;

class block trt;

model oatcover = trt/outp=oatcover2013;

random block;

lsmeans trt /pdiff adj=tukey;

**RUN**;

**Proc** **univariate** normal plot data=oatcover2013;

var resid;

**Run**;

**Proc** **plot** data = oatcover2013;

plot resid \* pred / vref=**0**;

**Run**; **Quit**;

**proc** **mixed** data= corncarryover2014;

class block trt;

model logoatcover = trt/outp=logoatcover2014;

random block;

lsmeans trt /pdiff adj=tukey;

**RUN**;

**Proc** **univariate** normal plot data=logoatcover2014;

var resid;

**Run**;

**Proc** **plot** data = logoatcover2014;

plot resid \* pred / vref=**0**;

**Run**; **Quit**;

**proc** **mixed** data= corncarryover2013;

class block trt;

model logoatcover = trt/outp=logoatcover2013;

random block;

lsmeans trt /pdiff adj=tukey;

**RUN**;

**Proc** **univariate** normal plot data=logoatcover2013;

var resid;

**Run**;

**Proc** **plot** data = logoatcover2013;

plot resid \* pred / vref=**0**;

**Run**; **Quit**;

**proc** **mixed** data= corncarryover2014;

class block trt;

model ryecover = trt/outp=ryecover2014;

random block;

lsmeans trt /pdiff adj=tukey;

**RUN**;

**Proc** **univariate** normal plot data=ryecover2014;

var resid;

**Run**;

**Proc** **plot** data = ryecover2014;

plot resid \* pred / vref=**0**;

**Run**; **Quit**;

**proc** **mixed** data= corncarryover2013;

class block trt;

model ryecover = trt/outp=ryecover2013;

random block;

lsmeans trt /pdiff adj=tukey;

**RUN**;

**Proc** **univariate** normal plot data=ryecover2013;

var resid;

**Run**;

**Proc** **plot** data = ryecover2013;

plot resid \* pred / vref=**0**;

**Run**; **Quit**;

**proc** **mixed** data= corncarryover2014;

class block trt;

model logryecover = trt/outp=logryecover2014;

random block;

lsmeans trt /pdiff adj=tukey;

**RUN**;

**Proc** **univariate** normal plot data=logryecover2014;

var resid;

**Run**;

**Proc** **plot** data = logryecover2014;

plot resid \* pred / vref=**0**;

**Run**; **Quit**;

**proc** **mixed** data= corncarryover2013;

class block trt;

model logryecover = trt/outp=logryecover2013;

random block;

lsmeans trt /pdiff adj=tukey;

**RUN**;

**Proc** **univariate** normal plot data=logryecover2013;

var resid;

**Run**;

**Proc** **plot** data = logryecover2013;

plot resid \* pred / vref=**0**;

**Run**; **Quit**;

**proc** **mixed** data= corncarryover2014;

class block trt;

model radishcover = trt/outp=radishcover2014;

random block;

lsmeans trt /pdiff adj=tukey;

**RUN**;

**Proc** **univariate** normal plot data=radishcover2014;

var resid;

**Run**;

**Proc** **plot** data = radishcover2014;

plot resid \* pred / vref=**0**;

**Run**; **Quit**;

**proc** **mixed** data= corncarryover2013;

class block trt;

model radishcover = trt/outp=radishcover2013;

random block;

lsmeans trt /pdiff adj=tukey;

**RUN**;

**Proc** **univariate** normal plot data=radishcover2013;

var resid;

**Run**;

**Proc** **plot** data = radishcover2013;

plot resid \* pred / vref=**0**;

**Run**; **Quit**;

**proc** **mixed** data= corncarryover2014;

class block trt;

model logradishcover = trt/outp=logradishcover2014;

random block;

lsmeans trt /pdiff adj=tukey;

**RUN**;

**Proc** **univariate** normal plot data=logradishcover2014;

var resid;

**Run**;

**Proc** **plot** data = logradishcover2014;

plot resid \* pred / vref=**0**;

**Run**; **Quit**;

**proc** **mixed** data= corncarryover2013;

class block trt;

model logradishcover = trt/outp=logradishcover2013;

random block;

lsmeans trt /pdiff adj=tukey;

**RUN**;

**Proc** **univariate** normal plot data=logradishcover2013;

var resid;

**Run**;

**Proc** **plot** data = logradishcover2013;

plot resid \* pred / vref=**0**;

**Run**; **Quit**;

**proc** **mixed** data= corncarryover2014;

class block trt;

model crimsoncover = trt/outp=crimsoncover2014;

random block;

lsmeans trt /pdiff adj=tukey;

**RUN**;

**Proc** **univariate** normal plot data=crimsoncover2014;

var resid;

**Run**;

**Proc** **plot** data = crimsoncover2014;

plot resid \* pred / vref=**0**;

**Run**; **Quit**;

**proc** **mixed** data= corncarryover2013;

class block trt;

model crimsoncover = trt/outp=crimsoncover2013;

random block;

lsmeans trt /pdiff adj=tukey;

**RUN**;

**Proc** **univariate** normal plot data=crimsoncover2013;

var resid;

**Run**;

**Proc** **plot** data = crimsoncover2013;

plot resid \* pred / vref=**0**;

**Run**; **Quit**;

**proc** **mixed** data= corncarryover2014;

class block trt;

model logcrimsoncover = trt/outp=logcrimsoncover2014;

random block;

lsmeans trt /pdiff adj=tukey;

**RUN**;

**Proc** **univariate** normal plot data=logcrimsoncover2014;

var resid;

**Run**;

**Proc** **plot** data = logcrimsoncover2014;

plot resid \* pred / vref=**0**;

**Run**; **Quit**;

**proc** **mixed** data= corncarryover2013;

class block trt;

model logcrimsoncover = trt/outp=logcrimsoncover2013;

random block;

lsmeans trt /pdiff adj=tukey;

**RUN**;

**Proc** **univariate** normal plot data=logcrimsoncover2013;

var resid;

**Run**;

**Proc** **plot** data = logcrimsoncover2013;

plot resid \* pred / vref=**0**;

**Run**; **Quit**;

**proc** **mixed** data= corncarryover2014;

class block trt;

model kingcover = trt/outp=kingcover2014;

random block;

lsmeans trt /pdiff adj=tukey;

**RUN**;

**Proc** **univariate** normal plot data=kingcover2014;

var resid;

**Run**;

**Proc** **plot** data = kingcover2014;

plot resid \* pred / vref=**0**;

**Run**; **Quit**;

**proc** **mixed** data= corncarryover2013;

class block trt;

model kingcover = trt/outp=kingcover2013;

random block;

lsmeans trt /pdiff adj=tukey;

**RUN**;

**Proc** **univariate** normal plot data=kingcover2013;

var resid;

**Run**;

**Proc** **plot** data = kingcover2013;

plot resid \* pred / vref=**0**;

**Run**; **Quit**;

**proc** **mixed** data= corncarryover2014;

class block trt;

model logkingcover = trt/outp=logkingcover2014;

random block;

lsmeans trt /pdiff adj=tukey;

**RUN**;

**Proc** **univariate** normal plot data=logkingcover2014;

var resid;

**Run**;

**Proc** **plot** data = logkingcover2014;

plot resid \* pred / vref=**0**;

**Run**; **Quit**;

**proc** **mixed** data= corncarryover2013;

class block trt;

model logkingcover = trt/outp=logkingcover2013;

random block;

lsmeans trt /pdiff adj=tukey;

**RUN**;

**Proc** **univariate** normal plot data=logkingcover2013;

var resid;

**Run**;

**Proc** **plot** data = logkingcover2013;

plot resid \* pred / vref=**0**;

**Run**; **Quit**;

**proc** **mixed** data= corncarryover2014;

class block trt;

model bruisercover = trt/outp=bruisercover2014;

random block;

lsmeans trt /pdiff adj=tukey;

**RUN**;

**Proc** **univariate** normal plot data=bruisercover2014;

var resid;

**Run**;

**Proc** **plot** data = bruisercover2014;

plot resid \* pred / vref=**0**;

**Run**; **Quit**;

**proc** **mixed** data= corncarryover2013;

class block trt;

model bruisercover = trt/outp=bruisercover2013;

random block;

lsmeans trt /pdiff adj=tukey;

**RUN**;

**Proc** **univariate** normal plot data=bruisercover2013;

var resid;

**Run**;

**Proc** **plot** data = bruisercover2013;

plot resid \* pred / vref=**0**;

**Run**; **Quit**;

**proc** **mixed** data= corncarryover2014;

class block trt;

model logbruisercover = trt/outp=logbruisercover2014;

random block;

lsmeans trt /pdiff adj=tukey;

**RUN**;

**Proc** **univariate** normal plot data=logbruisercover2014;

var resid;

**Run**;

**Proc** **plot** data = logbruisercover2014;

plot resid \* pred / vref=**0**;

**Run**; **Quit**;

**proc** **mixed** data= corncarryover2013;

class block trt;

model logbruisercover = trt/outp=logbruisercover2013;

random block;

lsmeans trt /pdiff adj=tukey;

**RUN**;

**Proc** **univariate** normal plot data=logbruisercover2013;

var resid;

**Run**;

**Proc** **plot** data = logbruisercover2013;

plot resid \* pred / vref=**0**;

**Run**; **Quit**;

**proc** **mixed** data= corncarryover2014;

class block trt;

model ryespringcover = trt/outp=ryespringcover2014;

random block;

lsmeans trt /pdiff adj=tukey;

**RUN**;

**Proc** **univariate** normal plot data=ryespringcover2014;

var resid;

**Run**;

**Proc** **plot** data = ryespringcover2014;

plot resid \* pred / vref=**0**;

**Run**; **Quit**;

**proc** **mixed** data= corncarryover2013;

class block trt;

model ryespringcover = trt/outp=ryespringcover2013;

random block;

lsmeans trt /pdiff adj=tukey;

**RUN**;

**Proc** **univariate** normal plot data=ryespringcover2013;

var resid;

**Run**;

**Proc** **plot** data = ryespringcover2013;

plot resid \* pred / vref=**0**;

**Run**; **Quit**;

**proc** **mixed** data= corncarryover2014;

class block trt;

model logryespringcover = trt/outp=logryespringcover2014;

random block;

lsmeans trt /pdiff adj=tukey;

**RUN**;

**Proc** **univariate** normal plot data=logryespringcover2014;

var resid;

**Run**;

**Proc** **plot** data = logryespringcover2014;

plot resid \* pred / vref=**0**;

**Run**; **Quit**;

**proc** **mixed** data= corncarryover2013;

class block trt;

model logryespringcover = trt/outp=logryespringcover2013;

random block;

lsmeans trt /pdiff adj=tukey;

**RUN**;

**Proc** **univariate** normal plot data=logryespringcover2013;

var resid;

**Run**;

**Proc** **plot** data = logryespringcover2013;

plot resid \* pred / vref=**0**;

**Run**; **Quit**;