Focus group - Census of Agriculture data

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## 1 Data description

We use the 2017 restricted access farm-level data from the Census of Agriculture. The sample of producers are those with positive value of sales in Dry Beans Harvested (Excl Chickpeas and Limas). Dry lima beans nor lentils are included. We intended to include chickpeas, but there are no harvested acres in the region. Because this focus group is taking place in Winter of 2024, discussing the prior planting period, we inflation adjust all variables expressed as dollars in 2023 dollars using the [U.S. Bureau of Labor Statistics, CPI Inflation Calculator](https://www.bls.gov/data/inflation_calculator.htm) for January 2017 to January 2023 (1.23).

We include three regional definitions:

1. New York
2. Middle Atlantic (New Jersey, New York, Pennsylvania)
3. Northeast (Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont)

Data is grouped by:

1. Operations with local food sales
2. Operations with organic production (defined as reporting a positive value for cropland or pastureland treated with organic fertilizer)
3. All producers

Tables:

* Average producer summary statistics
* Variable expenses
* Production and management practices

## 2 Average producer summary statistics - New York

### 2.1 Summary statistics

| Variable | Local (n=24) | Organic (n=9) | All (n=91) |
| --- | --- | --- | --- |
| Gross cash farm income (GCFI) | 1,053,768 | 3,277,125 | 1,144,915 |
| Total acres operated | 1,062 | 3,122 | 1,265 |
| Dry Beans Harvested, Acres | 64 | 207 | 139 |
| Dry Beans Harvested, Acres, as a percent of total crop acres | 20% | 11% | 21% |
| Dry Beans Harvested Value of Sales | 70,184 | 328,760 | 173,173 |
| Dry Beans Harvested Value of Sales as a percent of total value of sales | 21% | 12% | 27% |
| Dry Beans Harvested (cwt) | 1,179 | 4,990 | 3,088 |
| Dry Beans yield per acre (cwt) | 18 | 17 | 21 |
| Field Corn for Grain Harvested, Acres as a percent of total crop acres | 18% | 26% | 24% |
| Vegetables, Potatoes, and Melons, Fruit & Nut, and Berry harvested, acres, as a percent of total crop acres | 12% | 6% | 6% |
| Soybeans Harvested, Acres, as a percent of total crop acres | 9% | 4% | 8% |
| Wheat Harvested, Acres, as a percent of total crop acres | 7% | 9% | 12% |
| Primary commodity: Livestock | 0% | 0% | 0% |
| Primary commodity: Field crop | 79% | 78% | 78% |
| Primary commodity: Dairy | 0% | 0% | 7% |
| Primary commodity: Poultry | (D) | (D) | (D) |
| Primary commodity: Other crops | 11% | 0% | 12% |
| Primary commodity: Fruits and vegetables | (D) | (D) | (D) |
| Primary commodity: Other animal | 0% | 0% | 0% |
| Operation has acres covered under any crop insurance policy (0/1) | 42% | 67% | 47% |
| Operation recieves government payments (0/1) | 58% | 67% | 64% |
| Operation owns all land they operate | 26% | 0% | 24% |
| Operations rents all land they operate | 16% | 0% | 5% |
| Operation owns a portion and rents a portion part of the land they operate | 58% | 100% | 70% |
| Note: |  |  |  |
| All dollar amounts are inflation adjusted to 2023 dollars |  |  |  |

### 2.2 Summary statistics - Local Food Operations

| Variable | Average |
| --- | --- |
| Gross cash farm income (GCFI) | 1,053,768 |
| Total acres operated | 1,062 |
| Dry Beans Harvested, Acres | 64 |
| Dry Beans Harvested, Acres, as a percent of total crop acres | 20% |
| Dry Beans Harvested Value of Sales | 70,184 |
| Dry Beans Harvested Value of Sales as a percent of total value of sales | 21% |
| Dry Beans Harvested (cwt) | 1,179 |
| Dry Beans yield per acre (cwt) | 18 |
| Field Corn for Grain Harvested, Acres as a percent of total crop acres | 18% |
| Vegetables, Potatoes, and Melons, Fruit & Nut, and Berry harvested, acres, as a percent of total crop acres | 12% |
| Soybeans Harvested, Acres, as a percent of total crop acres | 9% |
| Wheat Harvested, Acres, as a percent of total crop acres | 7% |
| Primary commodity: Livestock | 0% |
| Primary commodity: Field crop | 79% |
| Primary commodity: Dairy | 0% |
| Primary commodity: Poultry | (D) |
| Primary commodity: Other crops | 11% |
| Primary commodity: Fruits and vegetables | (D) |
| Primary commodity: Other animal | 0% |
| Operation has acres covered under any crop insurance policy (0/1) | 42% |
| Operation recieves government payments (0/1) | 58% |
| Operation owns all land they operate | 26% |
| Operations rents all land they operate | 16% |
| Operation owns a portion and rents a portion part of the land they operate | 58% |
| Note: |  |
| All dollar amounts are inflation adjusted to 2023 dollars |  |

### 2.3 Summary statistics - Organic Operations

| Variable | Average |
| --- | --- |
| Gross cash farm income (GCFI) | 3,277,125 |
| Total acres operated | 3,122 |
| Dry Beans Harvested, Acres | 207 |
| Dry Beans Harvested, Acres, as a percent of total crop acres | 11% |
| Dry Beans Harvested Value of Sales | 328,760 |
| Dry Beans Harvested Value of Sales as a percent of total value of sales | 12% |
| Dry Beans Harvested (cwt) | 4,990 |
| Dry Beans yield per acre (cwt) | 17 |
| Field Corn for Grain Harvested, Acres as a percent of total crop acres | 26% |
| Vegetables, Potatoes, and Melons, Fruit & Nut, and Berry harvested, acres, as a percent of total crop acres | 6% |
| Soybeans Harvested, Acres, as a percent of total crop acres | 4% |
| Wheat Harvested, Acres, as a percent of total crop acres | 9% |
| Primary commodity: Livestock | 0% |
| Primary commodity: Field crop | 78% |
| Primary commodity: Dairy | 0% |
| Primary commodity: Poultry | (D) |
| Primary commodity: Other crops | 0% |
| Primary commodity: Fruits and vegetables | (D) |
| Primary commodity: Other animal | 0% |
| Operation has acres covered under any crop insurance policy (0/1) | 67% |
| Operation recieves government payments (0/1) | 67% |
| Operation owns all land they operate | 0% |
| Operations rents all land they operate | 0% |
| Operation owns a portion and rents a portion part of the land they operate | 100% |
| Note: |  |
| All dollar amounts are inflation adjusted to 2023 dollars |  |

### 2.4 Summary statistics - All Operations

| Variable | Average |
| --- | --- |
| Gross cash farm income (GCFI) | 1,144,915 |
| Total acres operated | 1,265 |
| Dry Beans Harvested, Acres | 139 |
| Dry Beans Harvested, Acres, as a percent of total crop acres | 21% |
| Dry Beans Harvested Value of Sales | 173,173 |
| Dry Beans Harvested Value of Sales as a percent of total value of sales | 27% |
| Dry Beans Harvested (cwt) | 3,088 |
| Dry Beans yield per acre (cwt) | 21 |
| Field Corn for Grain Harvested, Acres as a percent of total crop acres | 24% |
| Vegetables, Potatoes, and Melons, Fruit & Nut, and Berry harvested, acres, as a percent of total crop acres | 6% |
| Soybeans Harvested, Acres, as a percent of total crop acres | 8% |
| Wheat Harvested, Acres, as a percent of total crop acres | 12% |
| Primary commodity: Livestock | 0% |
| Primary commodity: Field crop | 78% |
| Primary commodity: Dairy | 7% |
| Primary commodity: Poultry | (D) |
| Primary commodity: Other crops | 12% |
| Primary commodity: Fruits and vegetables | (D) |
| Primary commodity: Other animal | 0% |
| Operation has acres covered under any crop insurance policy (0/1) | 47% |
| Operation recieves government payments (0/1) | 64% |
| Operation owns all land they operate | 24% |
| Operations rents all land they operate | 5% |
| Operation owns a portion and rents a portion part of the land they operate | 70% |
| Note: |  |
| All dollar amounts are inflation adjusted to 2023 dollars |  |

### 2.5 Percent of New York dry-bean operations by scale (gross cash farm income)

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| --- |
|  |

## 3 Variable expenses

### 3.1 Observations by region

| Region | Local | Organic | All operations |
| --- | --- | --- | --- |
| NY | 19 (21%) | 9 (10%) | 91 |
| Mid-Atlantic | 24 (24%) | 11 (11%) | 99 |
| Northeast | 42 (33%) | 17 (13%) | 127 |

### 3.2 Variable expenses - Local Food Operations

| Variable | Minimum | Maximum |
| --- | --- | --- |
| Breeding stock, other livestock purchased or leased | 2,871 | 4,942 |
|  | (3%) | (6%) |
| Chemical expense | (D) | (D) |
|  | (3%) | (4%) |
| Customwork expense | (D) | (D) |
|  | (2%) | (3%) |
| Feed expense | (D) | (D) |
|  | (7%) | (10%) |
| Fertilizer expense | 49,574 | 68,224 |
|  | (12%) | (16%) |
| Gas, fuel, oil expense | 24,250 | 32,840 |
|  | (6%) | (8%) |
| Hired and contract labor expense | (D) | (D) |
|  | (12%) | (18%) |
| Repairs and maintenance expense | 60,983 | 88,250 |
|  | (16%) | (18%) |
| Other production expenses (Include storage and warehousing, marketing expenses, insurance, etc. Exclude health insurance premiums and payroll taxes) | 33,183 | 41,159 |
|  | (5%) | (7%) |
| Seeds and plants expense | 43,240 | 53,947 |
|  | (13%) | (18%) |
| Total variable expense | 446,933 | 549,796 |
| Utilities expense | 6,582 | 10,389 |
|  | (4%) | (7%) |
| Note: |  |  |
| The minimum/maximum columns are the min/max of each variable for the three regions (NY, Mid-Atlantic, and Northest). Expenses are are inflation adjusted to 2023 dollars. (D) denotes data was not released due to disclosure issues. |  |  |

### 3.3 Variable expenses - Organic Operations

| Variable | Minimum | Maximum |
| --- | --- | --- |
| Breeding stock, other livestock purchased or leased | 19,096 | 35,988 |
|  | (8%) | (15%) |
| Chemical expense | (D) | (D) |
|  | (3%) | (4%) |
| Customwork expense | (D) | (D) |
|  | (3%) | (3%) |
| Feed expense | 8,924 | 16,414 |
|  | (4%) | (8%) |
| Fertilizer expense | (D) | (D) |
|  | (9%) | (12%) |
| Gas, fuel, oil expense | 57,438 | 105,675 |
|  | (4%) | (5%) |
| Hired and contract labor expense | 342,195 | 460,722 |
|  | (18%) | (28%) |
| Repairs and maintenance expense | 109,132 | 189,542 |
|  | (15%) | (17%) |
| Other production expenses (Include storage and warehousing, marketing expenses, insurance, etc. Exclude health insurance premiums and payroll taxes) | (D) | (D) |
|  | (4%) | (9%) |
| Seeds and plants expense | (D) | (D) |
|  | (12%) | (15%) |
| Total variable expense | 1,240,217 | 2,102,330 |
| Utilities expense | 10,705 | 14,405 |
|  | (1%) | (4%) |
| Note: |  |  |
| The minimum/maximum columns are the min/max of each variable for the three regions (NY, Mid-Atlantic, and Northest). Expenses are are inflation adjusted to 2023 dollars. (D) denotes data was not released due to disclosure issues. |  |  |

### 3.4 Variable expenses - All Operations

| Variable | Minimum | Maximum |
| --- | --- | --- |
| Breeding stock, other livestock purchased or leased | 6,834 | 8,754 |
|  | (2%) | (3%) |
| Customwork expense | 15,954 | 21,760 |
|  | (3%) | (4%) |
| Feed expense | 54,900 | 75,556 |
|  | (5%) | (6%) |
| Fertilizer expense | 95,506 | 121,909 |
|  | (18%) | (21%) |
| Gas, fuel, oil expense | 46,181 | 58,759 |
|  | (10%) | (11%) |
| Hired and contract labor expense | 83,031 | 108,404 |
|  | (8%) | (13%) |
| Repairs and maintenance expense | 57,511 | 68,615 |
|  | (14%) | (16%) |
| Other production expenses (Include storage and warehousing, marketing expenses, insurance, etc. Exclude health insurance premiums and payroll taxes) | 41,642 | 45,954 |
|  | (5%) | (6%) |
| Seeds and plants expense | 78,755 | 98,078 |
|  | (13%) | (16%) |
| Total variable expense | 552,335 | 643,110 |
| Utilities expense | 13,827 | 15,292 |
|  | (5%) | (5%) |
| Note: |  |  |
| The minimum/maximum columns are the min/max of each variable for the three regions (NY, Mid-Atlantic, and Northest). Expenses are are inflation adjusted to 2023 dollars. (D) denotes data was not released due to disclosure issues. |  |  |

### 3.5 Variable expenses - Organic, Local, All across all regions

| groupbyvar | variable\_description | NY | midatlantic | northeast |
| --- | --- | --- | --- | --- |
| local | Fertilizer expense | 68,224 | 54,615 | 49,574 |
| local | Seeds and plants expense | 53,947 | 43,240 | 44,355 |
| local | Breeding stock, other livestock purchased or leased | 4,942 | 4,473 | 2,871 |
| local | Feed expense | (D) | 4,550 | 4,405 |
| local | Gas, fuel, oil expense | 32,840 | 26,428 | 24,250 |
| local | Utilities expense | 7,767 | 6,582 | 10,389 |
| local | Repairs and maintenance expense | 88,250 | 71,575 | 60,983 |
| local | Hired and contract labor expense | (D) | (D) | 198,072 |
| local | Customwork expense | (D) | (D) | (D) |
| local | Other production expenses (Include storage and warehousing, marketing expenses, insurance, etc. Exclude health insurance premiums and payroll taxes) | 40,850 | 33,183 | 41,159 |
| local | Total variable expense | 549,796 | 446,933 | 487,231 |
| local | Fertilizer expense as a percent of total variable expense | 16% | 14% | 12% |
| local | Seeds and plants expense as a percent of total variable expense | 18% | 18% | 13% |
| local | Breeding stock, other livestock purchased or leased as a percent of total variable expense | 6% | 6% | 3% |
| local | Feed expense as a percent of total variable expense | 7% | 10% | 10% |
| local | Gas, fuel, oil expense as a percent of total variable expense | 7% | 6% | 8% |
| local | Utilities expense as a percent of total variable expense | 5% | 4% | 7% |
| local | Repairs and maintenance expense as a percent of total variable expense | 18% | 16% | 17% |
| local | Hired and contract labor expense as a percent of total variable expense | 12% | 14% | 18% |
| local | Customwork as a percent of total variable expense | 3% | 3% | 2% |
| local | Other production expenses (Include storage and warehousing, marketing expenses, insurance, etc. Exclude health insurance premiums and payroll taxes) as a percent of total variable expense | 5% | 5% | 7% |
| all operations | Fertilizer expense | 121,909 | 114,589 | 95,506 |
| all operations | Seeds and plants expense | 98,078 | 92,403 | 78,755 |
| all operations | Breeding stock, other livestock purchased or leased | 8,754 | 8,634 | 6,834 |
| all operations | Feed expense | 75,556 | 69,611 | 54,900 |
| all operations | Gas, fuel, oil expense | 58,759 | 55,042 | 46,181 |
| all operations | Utilities expense | 15,292 | 14,336 | 13,827 |
| all operations | Repairs and maintenance expense | 68,615 | 63,920 | 57,511 |
| all operations | Hired and contract labor expense | 88,762 | 83,031 | 108,404 |
| all operations | Customwork expense | 21,760 | 20,413 | 15,954 |
| all operations | Other production expenses (Include storage and warehousing, marketing expenses, insurance, etc. Exclude health insurance premiums and payroll taxes) | 45,954 | 43,684 | 41,642 |
| all operations | Total variable expense | 643,110 | 603,374 | 552,335 |
| all operations | Fertilizer expense as a percent of total variable expense | 21% | 20% | 18% |
| all operations | Seeds and plants expense as a percent of total variable expense | 15% | 16% | 13% |
| all operations | Breeding stock, other livestock purchased or leased as a percent of total variable expense | 3% | 3% | 2% |
| all operations | Feed expense as a percent of total variable expense | 5% | 6% | 6% |
| all operations | Gas, fuel, oil expense as a percent of total variable expense | 11% | 11% | 10% |
| all operations | Utilities expense as a percent of total variable expense | 5% | 5% | 5% |
| all operations | Repairs and maintenance expense as a percent of total variable expense | 15% | 14% | 16% |
| all operations | Hired and contract labor expense as a percent of total variable expense | 8% | 9% | 13% |
| all operations | Customwork as a percent of total variable expense | 4% | 4% | 3% |
| all operations | Other production expenses (Include storage and warehousing, marketing expenses, insurance, etc. Exclude health insurance premiums and payroll taxes) as a percent of total variable expense | 5% | 5% | 6% |
| organic | Fertilizer expense | (D) | (D) | (D) |
| organic | Seeds and plants expense | (D) | (D) | (D) |
| organic | Breeding stock, other livestock purchased or leased | 35,988 | 29,445 | 19,096 |
| organic | Feed expense | 16,414 | 13,456 | 8,924 |
| organic | Gas, fuel, oil expense | 105,675 | 87,106 | 57,438 |
| organic | Utilities expense | 14,405 | 12,462 | 10,705 |
| organic | Repairs and maintenance expense | 189,542 | 158,627 | 109,132 |
| organic | Hired and contract labor expense | 460,722 | 388,695 | 342,195 |
| organic | Customwork expense | (D) | (D) | (D) |
| organic | Other production expenses (Include storage and warehousing, marketing expenses, insurance, etc. Exclude health insurance premiums and payroll taxes) | (D) | (D) | 78,147 |
| organic | Total variable expense | 2,102,330 | 1,740,483 | 1,240,217 |
| organic | Fertilizer expense as a percent of total variable expense | 12% | 11% | 9% |
| organic | Seeds and plants expense as a percent of total variable expense | 15% | 12% | 12% |
| organic | Breeding stock, other livestock purchased or leased as a percent of total variable expense | 15% | 12% | 8% |
| organic | Feed expense as a percent of total variable expense | 8% | 7% | 4% |
| organic | Gas, fuel, oil expense as a percent of total variable expense | 5% | 5% | 4% |
| organic | Utilities expense as a percent of total variable expense | 1% | 2% | 4% |
| organic | Repairs and maintenance expense as a percent of total variable expense | 15% | 17% | 17% |
| organic | Hired and contract labor expense as a percent of total variable expense | 18% | 23% | 28% |
| organic | Customwork as a percent of total variable expense | 3% | 3% | 3% |
| organic | Other production expenses (Include storage and warehousing, marketing expenses, insurance, etc. Exclude health insurance premiums and payroll taxes) as a percent of total variable expense | 4% | 5% | 9% |
| all operations | Chemical expense as a percent of total variable expense | 8% | 7% | 6% |
| all operations | Chemical expense | (D) | (D) | (D) |
| local | Chemical expense as a percent of total variable expense | 4% | 3% | 3% |
| local | Chemical expense | (D) | (D) | (D) |
| organic | Chemical expense as a percent of total variable expense | 4% | 3% | 3% |
| organic | Chemical expense | (D) | (D) | (D) |

### 3.6 Variable expenses for local dry bean producers as a percent of total variable expense

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### 3.7 Average variable expenses for organic dry bean producers as a percent of total variable expense

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### 3.8 Average variable expenses for dry bean producers as a percent of total variable expense

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### 3.9 Average variable expenses for local dry bean producers

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### 3.10 Average variable expenses for organic dry bean producers

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### 3.11 Average variable expenses for dry bean producers

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## 4 Profitability

We present data on return on assets, net farm income, and operating profit margin.

* Return on assets (ROA) = (gross cash farm income - total expenditures + interest expense)/total assets
* Operating profit margin (OPM) = (gross cash farm income - total expenditures + interest expense)/gross cash farm income
* Net farm income (NFI) = gross cash farm income - total expenditures
* Gross cash farm income = total sales + contract income + government payments + income from ag related sources - landlord’s share of total sales
* Total assets = all land and buildings owned + all land and buildings leased from others + current value of machinery and equipment - land and buildings leased to others
* Total expenditures = sum of contractor total production expense + operator and landlord total production expenses

### 4.1 Profitability - Local Food Operations

| Variable | Minimum | Maximum |
| --- | --- | --- |
| Net farm income | 169,372 | 364,203 |
| Operating profit margin | (D) | (D) |
| Return on assets | 1% | 4% |
| Note: |  |  |
| The minimum/maximum columns are the min/max of each variable for the three regions (NY, Mid-Atlantic, and Northest). Net farm income is inflation adjusted to 2023 dollars. (D) denotes data was not released due to disclosure issues. |  |  |

### 4.2 Profitability - Organic Operations

| Variable | Minimum | Maximum |
| --- | --- | --- |
| Net farm income | (D) | (D) |
| Operating profit margin | (D) | (D) |
| Return on assets | (D) | (D) |
| Note: |  |  |
| The minimum/maximum columns are the min/max of each variable for the three regions (NY, Mid-Atlantic, and Northest). Net farm income is inflation adjusted to 2023 dollars. (D) denotes data was not released due to disclosure issues. |  |  |

### 4.3 Profitability - All Operations

| Variable | Minimum | Maximum |
| --- | --- | --- |
| Net farm income | 279,230 | 382,065 |
| Operating profit margin | (D) | (D) |
| Return on assets | 4% | 7% |
| Note: |  |  |
| The minimum/maximum columns are the min/max of each variable for the three regions (NY, Mid-Atlantic, and Northest). Net farm income is inflation adjusted to 2023 dollars. (D) denotes data was not released due to disclosure issues. |  |  |

### 4.4 Profitability - Organic, Local, All across all regions

| groupbyvar | variable\_description | NY | midatlantic | northeast |
| --- | --- | --- | --- | --- |
| local | Return on assets | 4% | 3% | 1% |
| local | Operating profit margin | (D) | (D) | (D) |
| local | Net farm income | 364,203 | 286,959 | 169,372 |
| all operations | Return on assets | 7% | 7% | 4% |
| all operations | Operating profit margin | 31% | 25% | (D) |
| all operations | Net farm income | 382,065 | 359,933 | 279,230 |
| organic | Return on assets | 7% | 5% | (D) |
| organic | Operating profit margin | 43% | (D) | (D) |
| organic | Net farm income | 825,879 | (D) | (D) |

## 5 Production and management practices

We present data on acres with a cover crop, no-till acres, reduced till acres, and intensive till acres.

* A cover crop is a crop planted primarily to manage soil erosion, soil fertility, soil quality, water, weeds, pests, and diseases on non-CRP acres.
* No-till farming practices is cropland used for production from year to year without disturbing the soil through tillage other than planting.
* Reduced tillage leaves between 15% and 30% residue cover on the soil of small grain residue to conserve moisture and prevent erosion. This may involve the use of a chisel plow, field cultivators, or other implements.
* Intensive tillage leaves less than 15% of crop residue of small grain residue. This type of tillage is often referred to as conventional tillage. Intensive tillage often involves multiple operations with implements such as a mold board, disk, and/or chisel plow.

### 5.1 Variable expenses - Local Food Operations

| Variable | Minimum | Maximum |
| --- | --- | --- |
| Cropland acres planted to a cover crop | 139 | 275 |
| Cropland acres planted to a cover crop as a percent of total cropland | 18% | 22% |
| Intensive till acres | 190 | 358 |
| Intensive till acres, as a percent of total crop acres | 44% | 52% |
| No till acres | 40 | 53 |
| No till acres as a percent of total cropland | 18% | 24% |
| Reduced till acres | 160 | 348 |
| Reduced till acres as a percent of total cropland | 12% | 17% |
| Note: |  |  |
| (D) denotes data was not released due to disclosure issues. |  |  |

### 5.2 Variable expenses - Organic Operations

| Variable | Minimum | Maximum |
| --- | --- | --- |
| Cropland acres planted to a cover crop | 416 | 772 |
| Cropland acres planted to a cover crop as a percent of total cropland | 36% | 48% |
| Intensive till acres | 282 | 513 |
| Intensive till acres, as a percent of total crop acres | 37% | 42% |
| No till acres | (D) | (D) |
| No till acres as a percent of total cropland | (D) | (D) |
| Reduced till acres | 406 | 759 |
| Reduced till acres as a percent of total cropland | 21% | 23% |
| Note: |  |  |
| (D) denotes data was not released due to disclosure issues. |  |  |

### 5.3 Variable expenses - All Operations

| Variable | Minimum | Maximum |
| --- | --- | --- |
| Cropland acres planted to a cover crop | 104 | 137 |
| Cropland acres planted to a cover crop as a percent of total cropland | 13% | 15% |
| Intensive till acres | 258 | 343 |
| Intensive till acres, as a percent of total crop acres | 40% | 40% |
| No till acres | 141 | 168 |
| No till acres as a percent of total cropland | 10% | 12% |
| Reduced till acres | 257 | 358 |
| Reduced till acres as a percent of total cropland | 23% | 30% |
| Note: |  |  |
| (D) denotes data was not released due to disclosure issues. |  |  |

## 6 Appendix - Restricted access code

The remainder of the document contains the code used to pull the restricted access Census of Agriculture data.

### 6.1 Define variables

All variables used across multiple projects are defined in “COA.qmd”.

When we get the variables, we will also include those that produce organic products according to USDA’s National Organic Program (NOP) standards or have acres transitioning into USDA NOP production (k3501). For now, we will say that operations with positive Cropland and Pastureland Treated with Organic Fertilizer (K1570) are organic.

### 6.2 Understanding crop mix

NASS collects information on harvested acres by commodity so double cropping is robust to this. If a producer harvests winter wheat and then plants and harvests soybeans on that same 100-acre field it will report 200 acres harvested; one hundred of corn and one hundred of soybeans. With two harvests on the same land for two different crops, harvested acres would appear twice. As a result, total harvested acres could sum to more than total cropland on the farm.

We take the harvested acres of each crop divided by total cropland to get understand cropping mix.

* CRLND - Sum of Cropland
* K787 - Cropland Harvested, Acres
* K791 - Cropland in Summer Fallow, Acres
* K1062 Cropland Idle or Used for Cover Crops, Acres
* K3456 - Cropland acres planted to a cover crop CROP -
* Crop - Sum of Cropland Harvested
* K67 - Field Corn for Grain Harvested, Acres
* K70 - Field Corn for Silage Harvested, Acres
* K578 - Durum Wheat Harvested, Acres
* K728 - Other Spring Wheat Harvested, Acres
* K572 - Winter Wheat Harvested, Acres
* K88 - Soybeans Harvested, Acres
* VEGA - Sum Acres of Vegetables
* CFRNNNAC - Fruit & Nut None Irrigated Acres
* CFRNWHAC - Fruit & Nut Wholly Irrigated Acres
* SUMBRTA - Calculated Sum of Total Berry Acres
* HAY - Acres Hay Harvested

### 6.3 Total sales

* K6764 Total Dry Beans Harvested (Excl Chickpeas and Limas) Sales
* K3538 Total Hay & Forage Crops Sales
* K4070 Field Corn for Silage Harvested Value of Sales
* K4067 Field Corn for Grain Harvested Value of Sales
* K4572 Winter Wheat Harvested Value of Sales
* K4578 Durum Wheat Harvested Value of Sales
* K4728 Other Spring Wheat Harvested Value of Sales
* K1792 Total Wheat Sales $
* K6298 Total Soybeans Harvested Sales (don’t have this variable)
* K3598 Total Vegetables, Potatoes, and Melons (Excl Veg Seeds & Transplants) Sales
* K3539 Total Fruit & Nuts Sales
* K3540 Total Berries Sales
* total value of sales
* dry bean sales as a percent of total value of sales

### 6.4 Yield

k555 - Dry Beans Harvested (Excl Chickpeas and Limas), Hundredweight

### 6.5 Tillage

k3455 - no till acres k3454 - reduced (conservation) tillage, excluding no-till, acres k3453 - intensive (conventional) tillage practices acres k3456 - cover crop acres

### 6.6 Variable expenses

We gather variable expenses data as a total per category and as a percent of total variable expenses.

Challenge: we have total expenses for the operation, total acres, and total acres of bean production. In order to accurately calculate cost per bean acre, we would have to keep producers that only produce beans, which is too small subset of the population. But, order to do the environmental analysis, we need expenditures on a per acre basis. We are trying to capture expenditures on the acres in which the beans are planted. Beans are all part of a rotation, but we are interested in all of these acres.

We want to tell a story about what these other bean growers are growing. Get value of sales from each commodity.

Total variable expenses: categorized the same as they do in ARMS k1501 fertilizer k1502 chemicals k1503 seeds, plants k1504, k1505 livestock purchases k1506 feed k1507 gasoline, fuels, oils k1508 utilities k1509 maintenance and repair k1510, k1511 labor k1512 customwork k1518 other expenses (Include storage and warehousing, marketing expenses, insurance, etc.)

We calculate it both including other expenses and not.

### 6.7 Fertilizer questions

K932 - Cropland Fertilized, Acres K933 - Pastureland Fertilized, Acres K1569 - Acres on Which Manure Was Applied K1570 - Cropland and Pastureland Treated with Organic Fertilizer K936 - Land Treated for Insects on Hay or Other Crops, Acres K939 - Land Treated for Weeds in Crops and Pasture, Acres K937 - Land Treated for Nematodes in Crops, Acres K938 - Land Treated for Diseases in Crops and Orchards, Acres K940 - Crops on Which Chemicals for Defoliation Applied, Acres

### 6.8 Define regions

While we are generally interested in New York, we are expanding the study to both the Middle Atlantic and New England as a whole.

### 6.9 Summary stats

Summary stats are separated for local, nonlocal, all and by the three different regional definitions.

Summary stats include expenses, profitability measures and farm characteristics. This will allow to to provide survey respondents with our estimate of expenses, they will be able to move it either higher or lower. Profitability and farm characteristics will allow us to understand how the group of bean producers we are meeting with compare to this sample. If SE’s are high, see if there are outlier problems. For disclosure, we also provide the n in each category and the top two observations

We provide mean, se, and totals (so we can compute percentages for the group as a whole).

#### 6.9.1 Profitability measures:

* net profitability (infi) (GCFI - EXP)
* ROA
* OPM
* total sales

#### 6.9.2 Demographics and farm characteristics

* bean sales
* total value of sales
* bean sales as a percent of total value of sales
* total harvested crop acres
* percent of harvested acres by crop
* cover crop acres
* cover crop acres as a percent of total harvested acres
* percent all/any beginning, beginning\_alt != “Established”
* owned vs. rented, tenure\_fct
* other commodities,
* total acres operated, k46
* gross cash farm income, gcfi
* gcfi categories
* crop insurance (1/0), crop\_insurance
* government payments (1/0), gov\_payments\_cat

### 6.10 Organic

For organic, we only need the data grouped by organic and do not need data for all producers as we already have that.

### 6.11 Write final results