USDA Census of Agriculture 2017 Summary Report

Focus: Greenhouses and foods crops grown under cover

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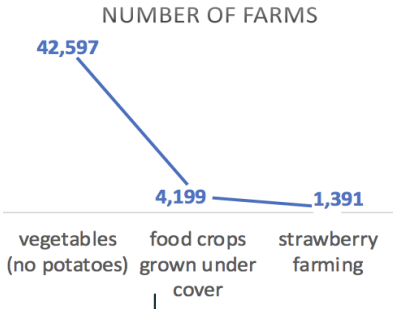
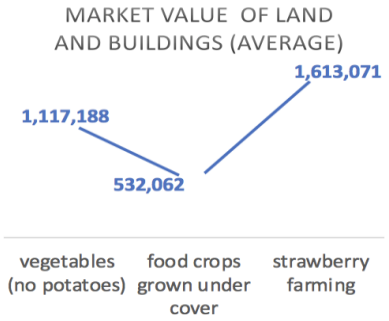
Agrictecture Consulting, 2019

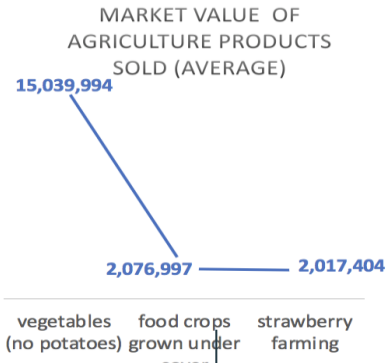
All farms: selected crops grown and their market value



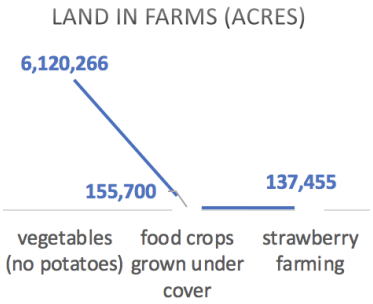
Total number of farms: 2,042,220



Average Market Value of land and buildings for all farms: $1,311,808



Total Market Value of agricultural products sold for all farms: $388,522,695



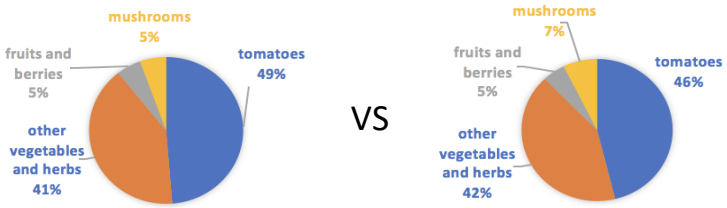
Total land in farms (acres): 900,217,576

Average farm has size of 440, 8 acres

Reference: Table 48, page 59, Census of Agriculture, 2017

Food crops grown under glass or other protection: 2012 vs 2017

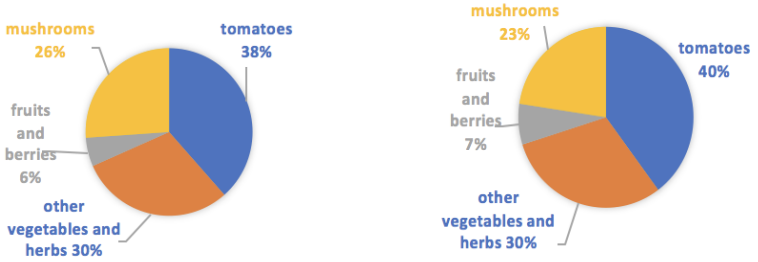
Number of farms (out of total farms) with food crops grown under glass or other protection



2012 2017

	tomatoes	other vegetables and herbs	fruits and berries	mushrooms
2012	6323	5268	673	712
2017	7974	7198	846	1261

Area of farms (10000 sq f, out of total farms) with food crops grown under glass or other protection



2012 2017

	tomatoes	other vegetables and herbs	fruits and berries	mushrooms
2012	55,180,582	42,819,149	7,950,774	37,416,059
2017	63,929,576	48,634,529	11,708,439	36,281,409

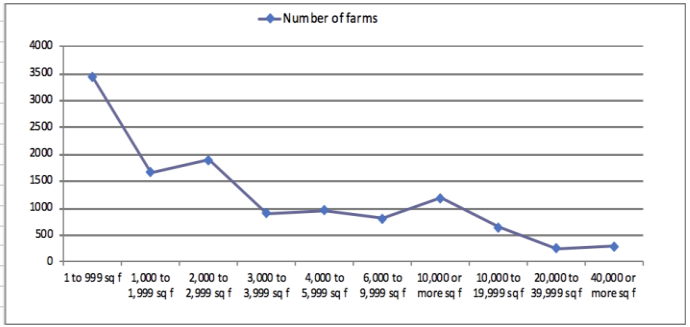
Although number of farms growing tomatoes decreased by 3% from 2012 to 2017 (46% vs 49%), area devoted to tomatoes increased by 2% (38% vs 40%), implying that area devoted to tomatoes increased significantly - despite that fewer farms actually were growing tomatoes

In opposite, also more farms started growing mushrooms in 2017 than in 2012 (7% vs 5%), the area devoted to mushrooms decreased by 3 % from 2012 to 2017 (26% vs 23%). *Reference: Table 39, page 52, Census of Agriculture, 2017*

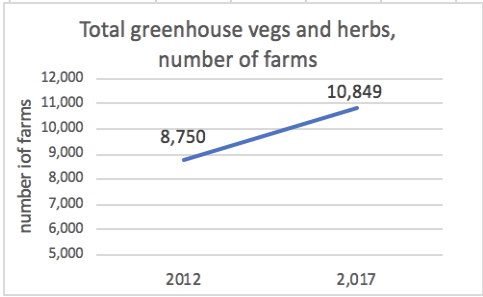
Food crops grown under protection, farm size and area: 2017

Most **common farm size**: 1 to 999 sq feet

Farm size	Number of farms
1 to 999 sq f	3431
1,000 to 1,999 sq f	1666
2,000 to 2,999 sq f	1893
3,000 to 3,999 sq f	902
4,000 to 5,999 sq f	957
6,000 to 9,999 sq f	809
10,000 or more sq f	1191
10,000 to 19,999 sq f	641
20,000 to 39,999 sq f	254
40,000 or more sq f	296

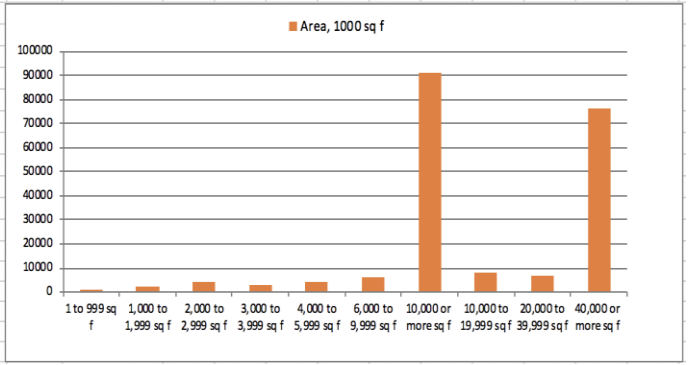


Number of total greenhouses increased by 24 %

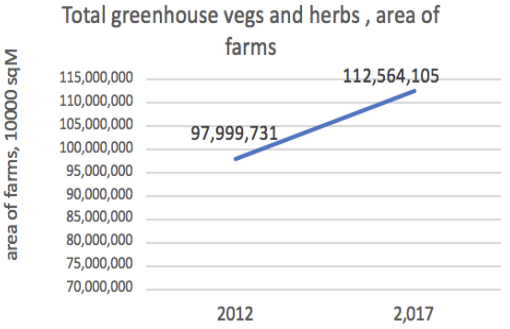


Most **common farm area**: 1266 thousand sq feet

Farm size	Area, 1000 sq f
1 to 999 sq f	1266.077
1,000 to 1,999 sq f	2318.646
2,000 to 2,999 sq f	4,464
3,000 to 3,999 sq f	2958.864
4,000 to 5,999 sq f	4536.231
6,000 to 9,999 sq f	5948.472
10,000 or more sq f	91071
10,000 to 19,999 sq f	8,437
20,000 to 39,999 sq f	6,569
40,000 or more sq f	76,066

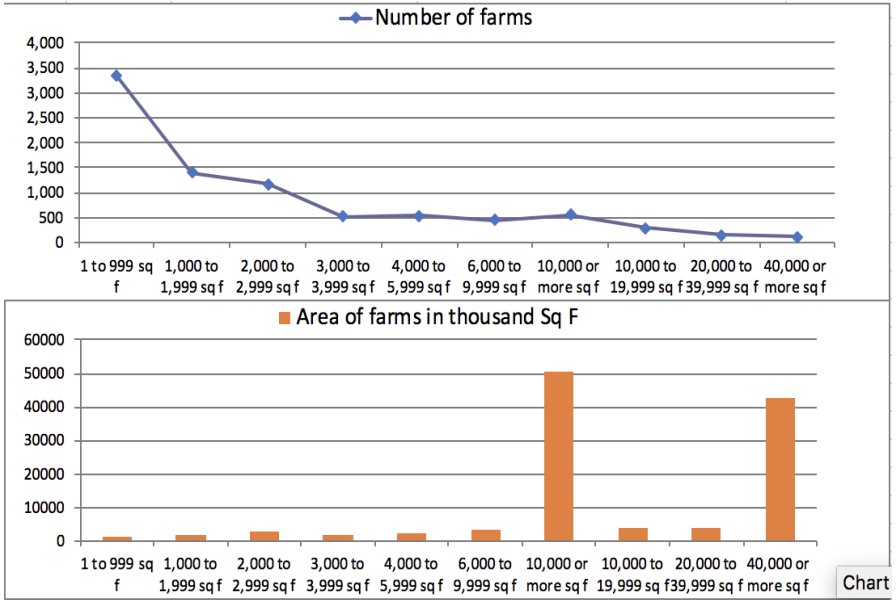


Total area occupied by greenhouses increased by 14.86 %

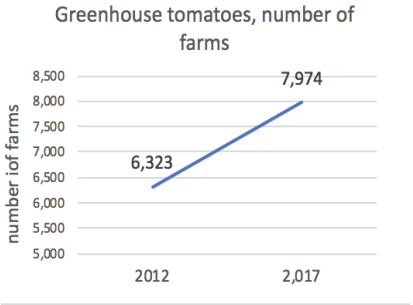


Reference: Table 39, page 52, Census of Agriculture, 2017

Food crops grown under protection: tomatoes

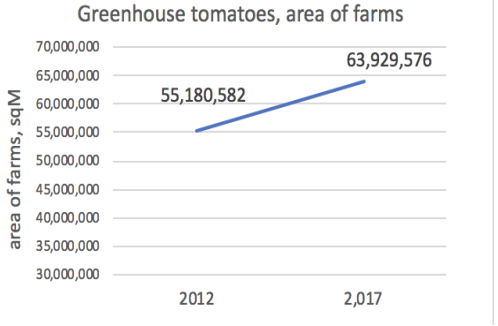


Most common size (2017): 1 to 999 square feet
Farms with size of 10000 square feet or above have the greatest area of about 50000 square feet



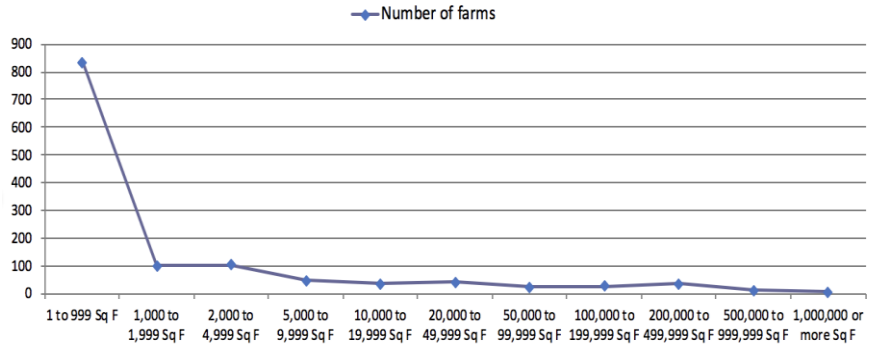
Number of greenhouses producing tomatoes increased by 26.11 % (vs 24% increase of total greenhouses)

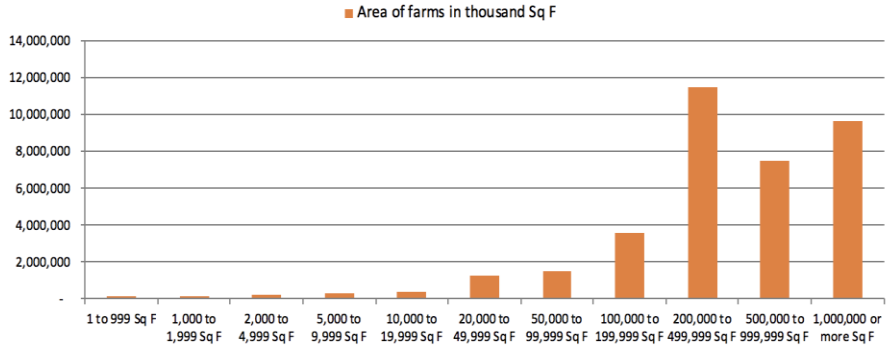
Area of greenhouses producing tomatoes increased by 15.85 % (vs 14.86 % increase of total greenhouses)

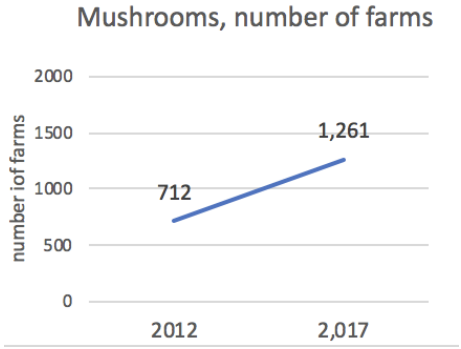


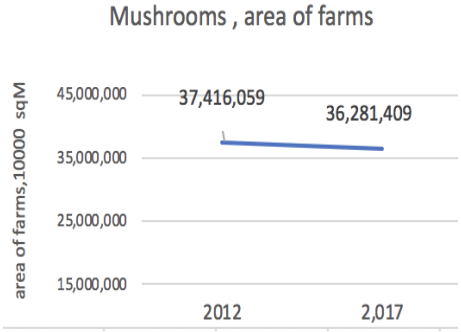
Reference: Table 39, page 52, Census of Agriculture, 2017

Food crops grown under protection: mushrooms









In 2017, number of farms producing mushrooms increased by 77% compared to 2012

However, despite this increase, in 2017, area of farms devoted to producing mushrooms decreased by 3% compared to 2012

Reference: Table 39, page 53, Census of Agriculture, 2017

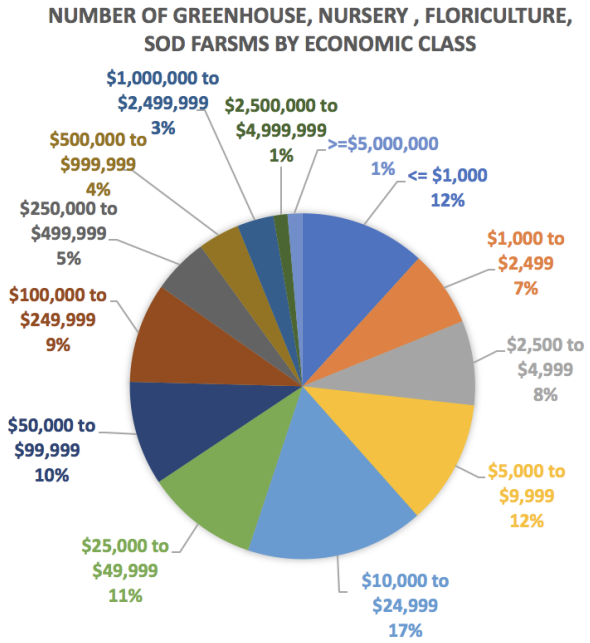
Market Value of agricultural products sold for Greenhouse, Nursery, Floriculture, Sod farms

Farms by economic class:	Number of farms
<= $1,000	5,344
$1,000 to $2,499	3,238
$2,500 to $4,999	3,592
$5,000 to $9,999	5,309
$10,000 to $24,999	7,578
$25,000 to $49,999	4,798
$50,000 to $99,999	4,433
$100,000 to $249,999	4,248
$250,000 to $499,999	2,378
$500,000 to $999,999	1,772
$1,000,000 to $2,499,999	1,558
$2,500,000 to $4,999,999	597
>=$5,000,000	632

39% of the Greenhouse, Nursery, Floriculture,Sod (GNFS) farms have market value below $9999

38% of GNFS farms have market value between $10000 and $100000 (as follows 77% of farms have mv below $100000)

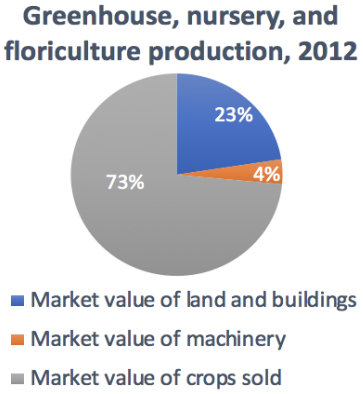
4% of farms have market value above $1,000,000



Reference: Table 75, page 198, Census of Agriculture, 2017

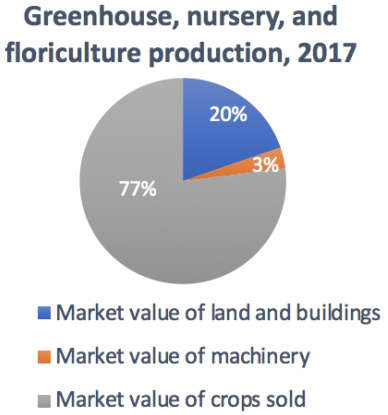
Market Value of capital assets for Greenhouse, Nursery, Floriculture, Sod farms

Year	Total MV of land & buildings	Total MV of machinery	Total MV of crops sold	Total farms	Average MV of land and buildings	Average MV of machinery	Average MV of crops sold
2017	532,062	89,632	2,076,997	4,199	126.711	21.35	494.64
2012	519,707	90,989	1,693,061	3138	165.617	28.99	539.53



Although total market value of land & buildings (↑2.3%) and crops sold (↑22.67%) increased from 2012 to 2017, their average market value decreased, i.e. land & buildings (↓23.5%), crops (↓8.3%). For machinery, both total (↓1.5%) and average (↓26.35%) market value decreased from 2012 to 2017.

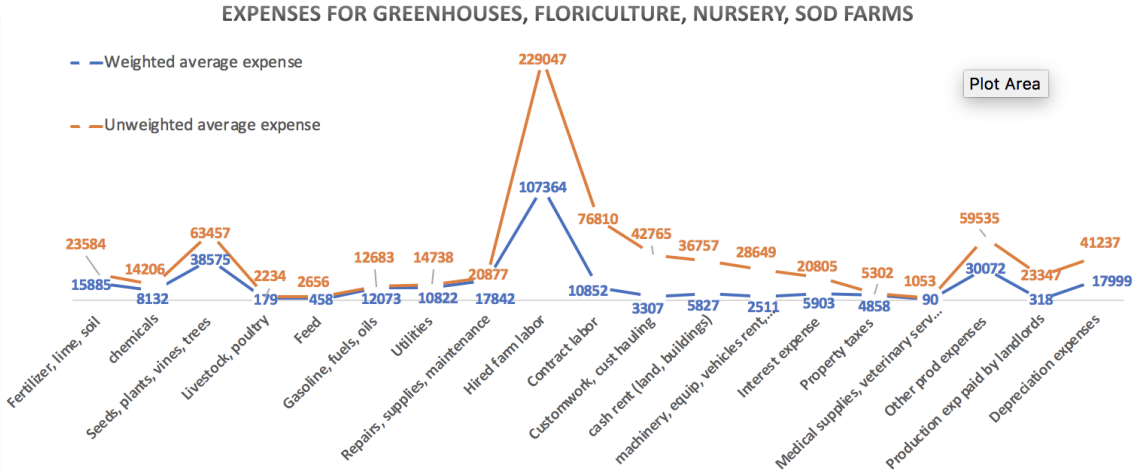
Among capital assets, crops sold have the highest market value



Reference: Table 48, page 69, Census of Agriculture, 2017

Expenses for Greenhouses, Nursery, Floriculture, Sod farms

Expense	Total expense	Weighted average expense	Unweighted average expense
Fertilizer, lime, soil	722,405	15885	23584
Chemicals	369,815	8132	14206
Seeds, plants, vines, trees	1,754,256	38575	63457
Livestock, poultry	8,156	179	2234
Feed	20,842	458	2656
Gasoline, fuels, oils	549,051	12073	12683
Utilities	492,172	10822	14738
Repairs, supplies, maintenance	811,392	17842	20877
Hired farm labor	4,882,604	107364	229047
Contract labor	493,503	10852	76810
Customwork, hauling	150,404	3307	42765
Cash rent (land, buildings)	264,982	5827	36757
Machinery, equip, vehicles rent, lease	114,193	2511	28649
Interest expense	268,463	5903	20805
Property taxes	220,914	4858	5302
Medical supplies, veterinary service	4,100	90	1053
Other prod expenses	1,367,569	30072	59535
Production expense paid by landlords	14,475	318	23347
Depreciation expenses	818,545	17999	41237
Total sum	13,327,841		



Total farms: 45,477. Total expenses: $12,494,822. Average unweighted total expenses per farm: 274,750

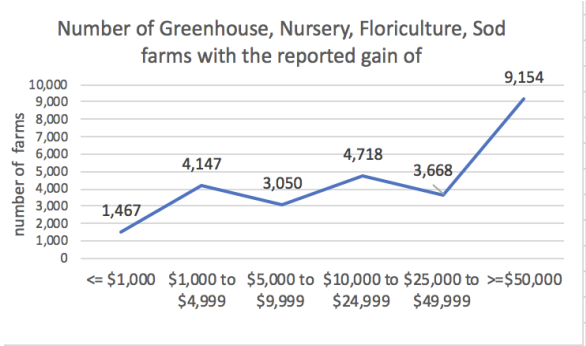
The biggest average expense for Greenhouses, Nursery, Floriculture, Sod (GNFS) farms (21,317 farms had this expense): Hired farm labor; weighted expense: $107364; unweighted expense: $229047

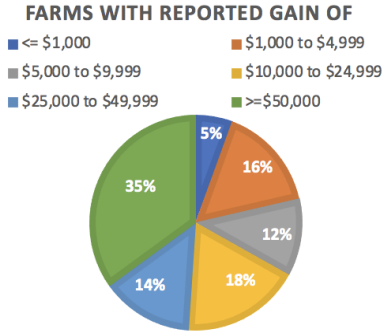
Smallest average expense (3892 farms had this expense): Medical supplies, veterinary services ; weighted expense: $90; Unweighted expense:$1053;

Weights were calculated based on how common was the expense among all GNFS farms surveyed (45,477)

Reference: Table 75, page 202, Census of Agriculture, 2017

Net Gains, Loss and Net Cash Income of Greenhouses, Nursery, Floriculture, Sod farms

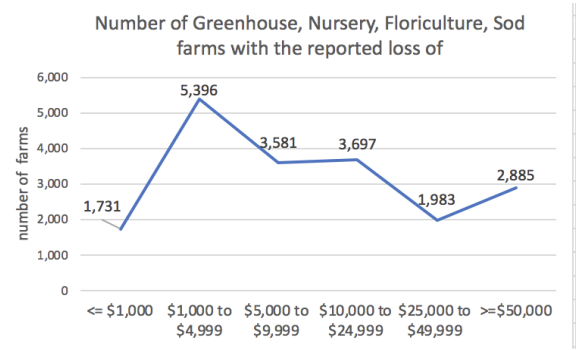


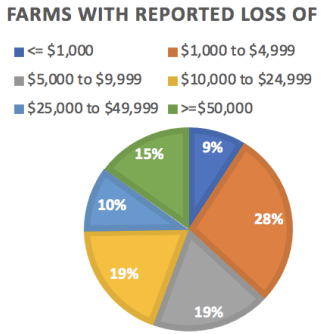


35% of Greenhouses, Nursery, Floriculture, Sod (GNFS) farms reported **gain of greater or equal to $50000**

5% of GNFS farms reported **gain of less or equal to $1000**

33% of GNFS farms reported **gain below $10000**





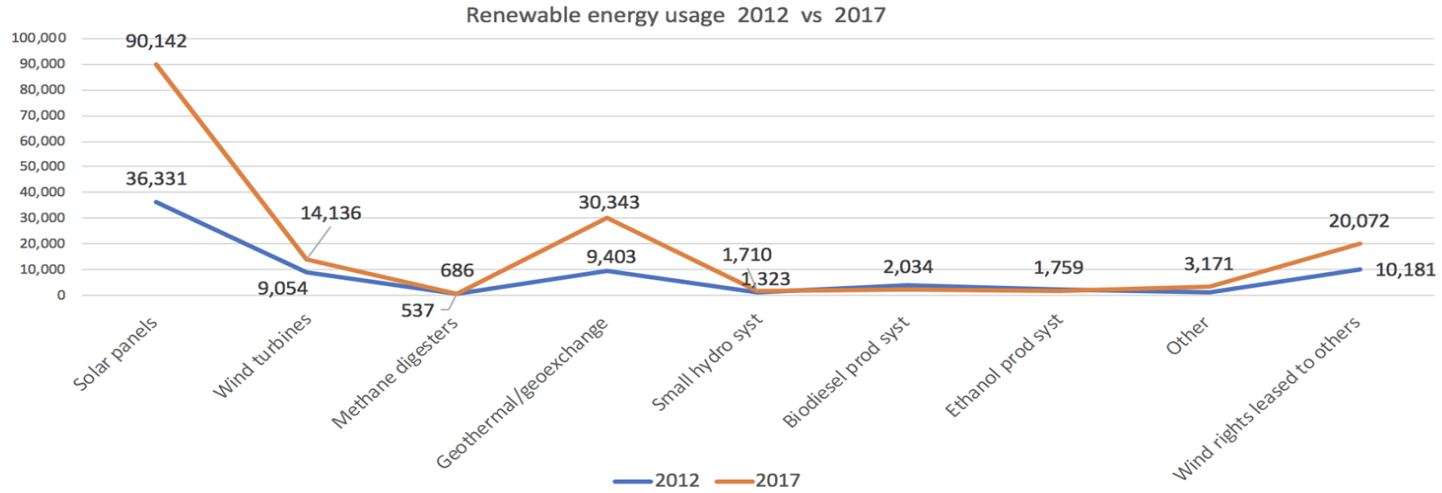
28% of GNFS farms reported **loss of $1000 to $4999**

56% of GNFS farms reported **loss below $10000**

15% of GNFS farms reported **loss greater or equal to $50000**

Reference: Table 75, page 206, Census of Agriculture, 2017

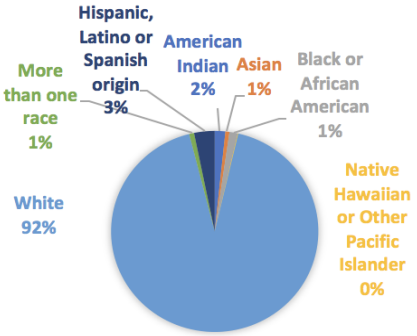
Renewable energy usage (2012 vs 2017)



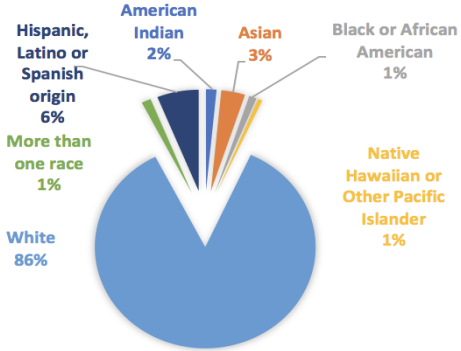
Overall, in 2017 there has been a significant increase in renewable energy usage compared to 2012. In 2017, usage of solar panels increased by 148%, usage of wind turbins increased by 56%, usage of geothermal and geoexchange systems increased by 222%, usage of small hydrosystems increased by 29%, usage of wind rights leased to others increased by 97%

Reference: Table 49, page 60, Census of Agriculture, 2017

Race and origin of farmers: All Farms vs Greenhouses, Nursery, Floriculture, Sod (GNFS) farms



RACE & ORIGIN OF PRODUCERS - ALL FARMS



RACE & ORIGIN OF ALL PRODUCERS - GREENHOUSES, NURSERY AND FLORICULTURE

Fewer White farmers work in GNFS farms (86% vs 92%).

More Hispanic, Latino or farmers of Spanish origin work in GNFS farms (principal producers - 3% vs 5% and non-principal producers - 3% vs 6%)

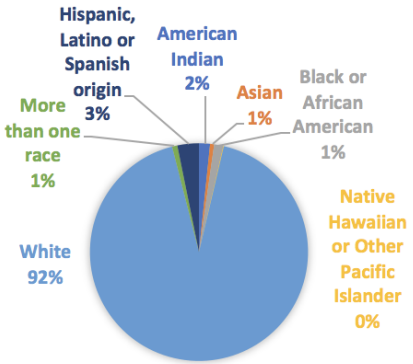
More Asian farmers work as non-principal producers in GNFS farms (1% vs 3%)

Black farmers constitute 1% of principal and non-principal producers for both total and GNFS farms.

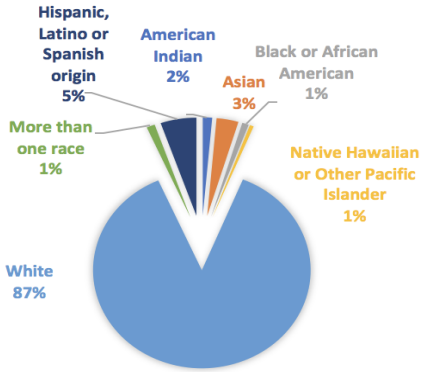
Similarly, for both total and GNFS farms, American Indian farmers constitute 2% of principal and non-principal farmers.

Native Hawaiian or other Pacific Islanders constitute 0.08% of principal and 0.07% of non-principal farmers for total farms. However, for GNFS farms, they constitute 1% of both principal and non-principal producers.

Reference: All farms - Tables 63-64; pages 80-83. GNFS farms: Tables 61-62; pages 72-73; Census of Agriculture

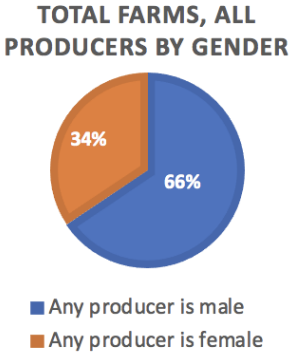


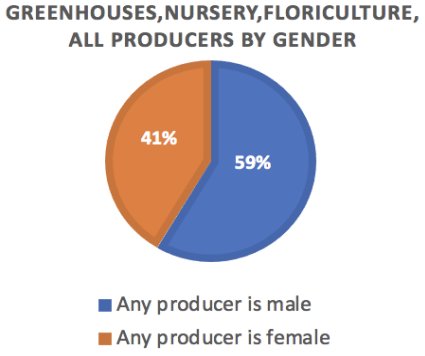
RACE & ORIGIN OF PRINCIPAL PRODUCERS- ALL FARMS



RACE & ORIGIN OF PRINCIPAL PRODUCERS - GREENHOUSES, NURSERY AND FLORICULTURE

Gender of farmers: All farms vs Greenhouses, Nursery, Floriculture farms



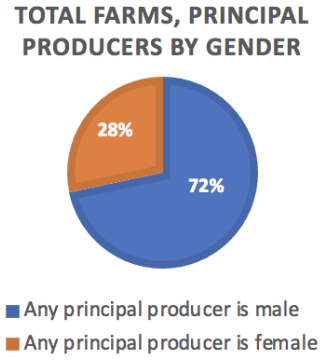


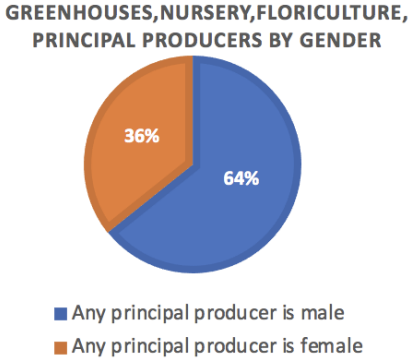
There is a greater gender equality among all producers for Greenhouses, Nursery, Floriculture farms compared to All farms (41% vs 34% of producers are female)

Similarly, there is a greater gender equality among principal producers for Greenhouse, Nursery, Floriculture farms compared to All farms (36% vs 28% of producers are female)

For total farms, there are 2.57 times more male principal producers than female principal producers (72% vs 28%)

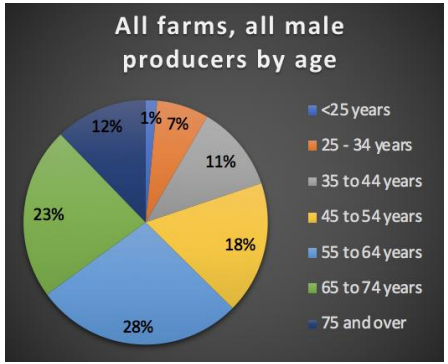
For Greenhouses, Nursery, Floriculture farms, there are 1.78 times more male principal producers than female principal producers (64% vs 36%)

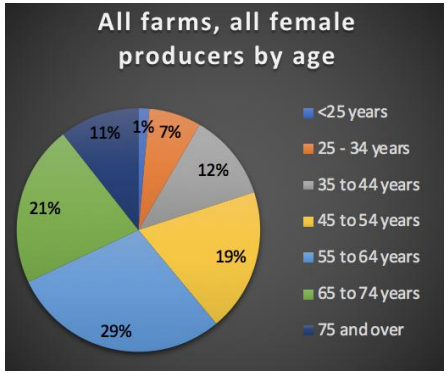


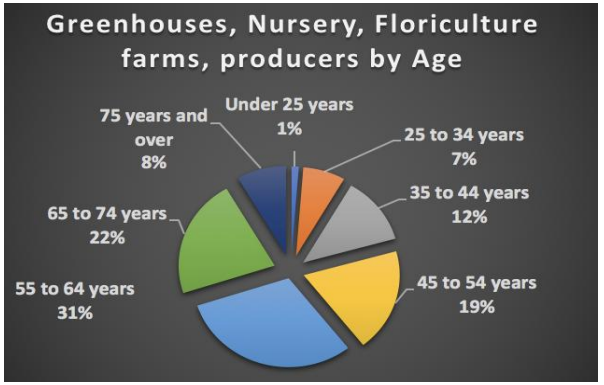


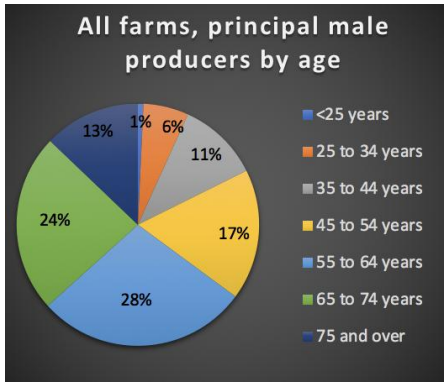
Reference: Male producers - Table 55, page 66; Female producers - Table 57, page 68, Census of Agriculture

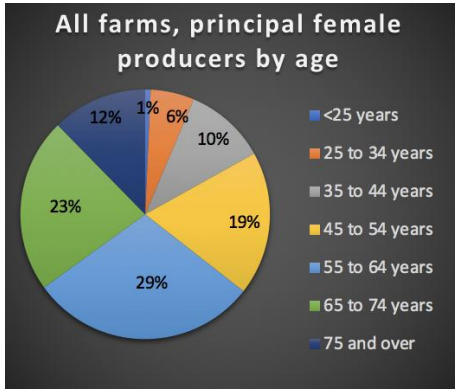
Producer's age: All and Greenhouses, Nursery, Floriculture farms











All farms, **all producers**, **average** age: **57.5**
All farms, **all principal producers**, **average** age: **58.6**
Greenhouses, Nursery, Floriculture, **average** age: **56.5**
Producer age statistics:
Most farmers (both genders) are between **55 to 64 years old**
Age below 44: all producers: 20% female, 19% male;
principal producers: 17% female, 18% male;
Age above 65: all producers: 32% female, 35% male;
principal producers: 35% female, 37% male.
Female producers, both principal and non-principal, tend to be **younger**

Reference: Greenhouses, Nursery, Floriculture- Table 75, page 214;
Male producers - Table 56, page 67; Female producers - Table 58, page 69; Census of Agriculture

Thank you for your attention!

USDA Census of Agriculture: https://www.nass.usda.gov/Publications/AgCensus/2017/#full_report