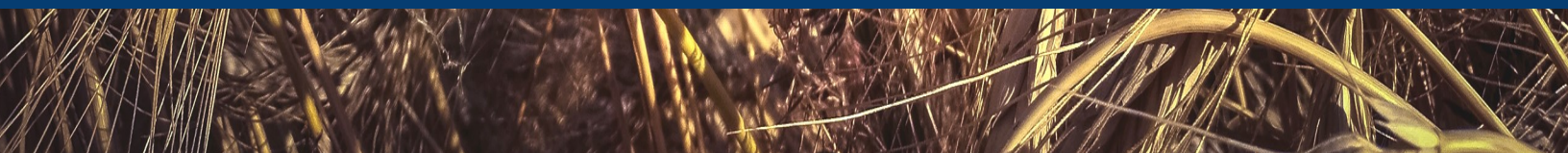




2020 Crop & Livestock Report

To protect and promote agriculture and to ensure equity in the marketplace.



MODOC COUNTY

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General County Information

County Seat

Alturas

Population (2010)

9,686

Total Appraised Value (2016)

\$1,093,700

Area of County (square miles)

3,917.77

Acres in County

2,689,920

Major Farming Areas

Tulelake Basin

Surprise Valley

Adin

Lookout

New Pine Creek

Davis Creek

Likely

Major Rivers

Lost River

Pit River

Certified Farmers Markets

Alturas Farmer's Market

Surprise Valley Farmer's



Modoc County Department of Agriculture

Gary Fensler, Agricultural Commissioner
Sealer of Weights and Measures

July 1, 2020

Karen Ross, Secretary
California Department of Food and Agriculture
and
The Honorable Board of Supervisors, County of Modoc
Elizabeth Cavasso, Chair of the Board
Ned Coe, Vice-Chair of the Board
Patricia Cullins, District II
Kathie Rhoads, District III
Geri Byrne, District IV

Chester Robertson, County Administrative Officer

In accordance with of Section 2279 of the California Food and Agricultural Code, I am pleased to submit the Modoc County Annual Crop Report for 2020. This report represents the estimated acreage, yield, and gross value of agriculture products in Modoc County.

The gross agricultural receipts for 2020 totaled \$206,126,898.00, representing an increase of \$23,143,528.10 from the 2019 growing season that had gross receipts in the amount of \$182,983,461.00.

The figures in this report represent gross values only and do not reflect a net return to the producer or the cost of production. In addition, the statistics do not reflect an individual operation since the entire county is the smallest unit measure for any particular commodity.

I want to extend my sincere appreciation for the efforts and cooperation of all the agricultural producers and partners who provided information for the 2020 Crop Report. I would also like to recognize the dedicated staff of the Modoc County Agriculture Department for their assistance in compiling and producing the information for this publication.

Respectfully submitted,

Gary Fensler

Gary Fensler
Agricultural Commissioner & Sealer of Weights and Measures

202 West Fourth Street, Alturas, CA 96101 Phone (530) 233-6401

Modoc County Department of Agriculture



Agricultural Commissioner/Sealer of Weights and Measures
Gary Fensler

Fiscal Officer
Susie Johnson

Noxious Weed Program & Shop Mechanic
Curtis Leslie

Agricultural Biologist
Jolene Moxon

Agricultural Biologist
David Escobar

Air Pollution Officer
Jennifer White

Agricultural Technician
Caitlyn Davis

Noxious Weed Eradication Staff
Dwayne Chapmen
Brandon Duran
Joshua Hayes
Nick Johnson
Floyd McKee
Alex Moreo
Donald Seago
Zachary Grim

Modoc County Board of Supervisors

County of Modoc Mission Statement

Partnering with our communities, to deliver financially sustainable services which promote healthy and safe communities, to enhance economic vitality while adhering to the laws and supporting Modoc's unique qualities.



Chair of the Board
District IV – Elizabeth Cavasso
California Pines, Canby, and Alturas



Vice-Chair of the Board
District I – Ned Coe
Ft. Bidwell, Lake City, Cedarville, Eagleville, New Pine Creek, Joseph Creek, and Davis Creek



District III – Kathie Rhoads
Likely, Parker Creek, and Alturas



District II - Patricia Cullins
Modoc Recreational Estates and Alturas

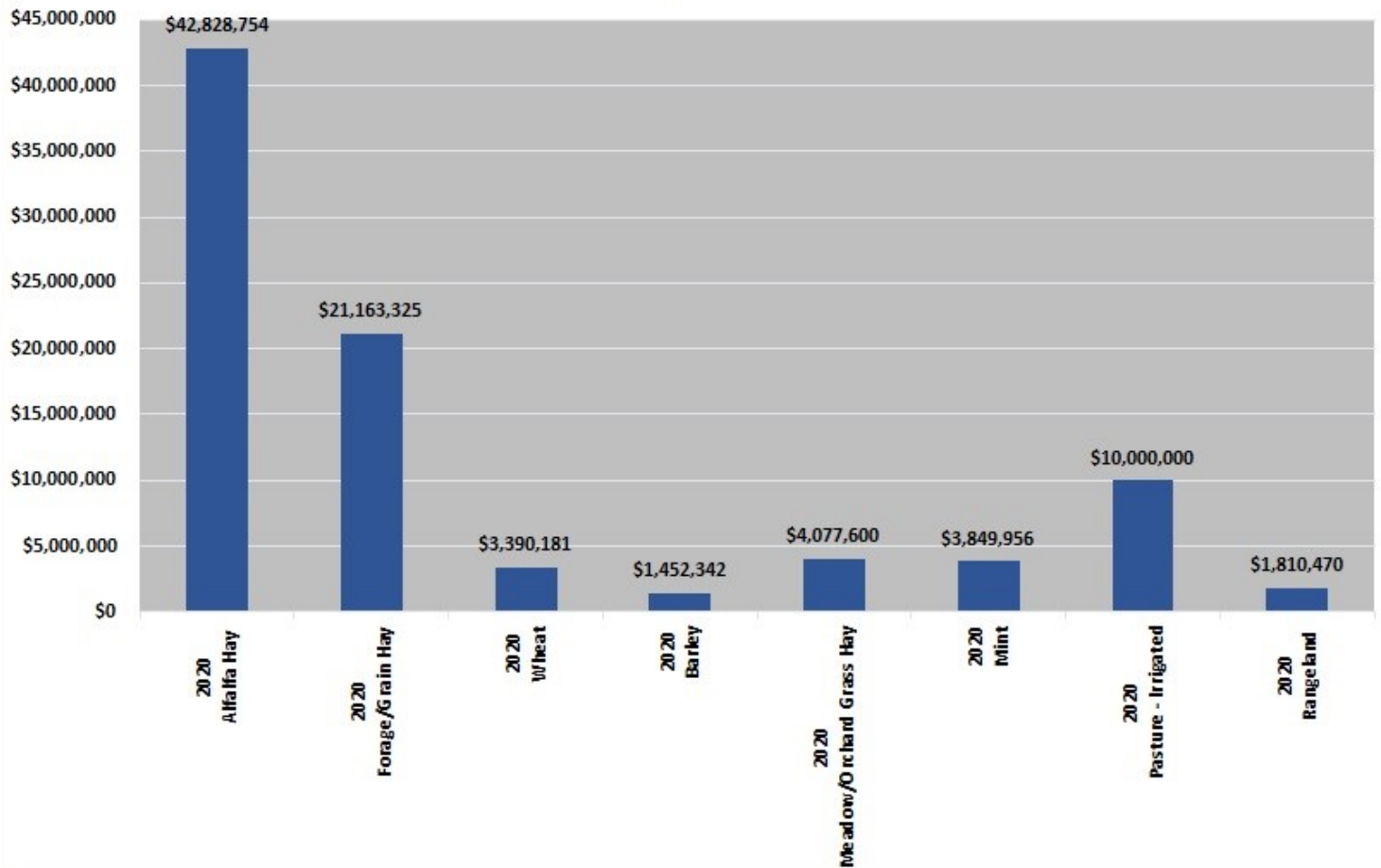


District V – Geri Byrne
Adin, Lookout, Newell, Day, and Tulelake

Field Crops

| <u>Crop</u> | <u>Year</u> | <u>Harvested Acreage</u> | <u>Production per Acre</u> | <u>Total Production</u> | <u>Unit</u> | <u>Price per Unit</u> | <u>Total Value</u> |
|---------------------------------|-------------|------------------------------|--------------------------------|-----------------------------|-------------|-------------------------------|--------------------|
| Alfalfa Hay | 2020 | 35,991 | 7 | 251,933 | Ton | \$170.00 | \$42,828,754 |
| | 2019 | 37,932 | 6 | 227,589 | Ton | \$190.00 | \$43,241,910 |
| | 2018 | 32,850 | 6.5 | 213,525 | Ton | \$190.00 | \$40,569,750 |
| Forage/ Grain Hay | 2020 | 24,898 | 5 | 124,490 | Ton | \$170.00 | \$21,163,325 |
| | 2019 | 29,614 | 4.5 | 133,263 | Ton | \$150.00 | \$19,989,450 |
| | 2018 | 15,727 | 4.5 | 70,771.5 | Ton | \$125.00 | \$8,846,438 |
| Wheat | 2020 | 5,567 | 3.5 | 19,483 | Ton | \$174.00 | \$3,390,181 |
| | 2019 | 6,290 | 3.25 | 20,442 | Ton | \$162.50 | \$3,321,906 |
| | 2018 | 5,084 | 3.25 | 16,523 | Ton | \$177.50 | \$2,933,005 |
| Barley | 2020 | 3,635 | 2.35 | 8,543 | Ton | \$170.00 | \$1,452,342 |
| | 2019 | 5,994 | 2.75 | 16,482 | Ton | \$152.50 | \$2,513,566 |
| | 2018 | 3,073 | 2.6 | 7,989 | Ton | \$177.50 | \$1,418,189 |
| Meadow/ Orchard Grass Hay | 2020 | 2,718 | 5 | 13,592 | Ton | \$300.00 | \$4,077,600 |
| | 2019 | 1,647 | 4.5 | 7,411 | Ton | \$280.00 | \$2,075,220 |
| | 2018 | 7,862 | 4.5 | 35,379 | Ton | \$260.00 | \$9,198,540 |
| Mint | 2020 | 2059 | 85 | 174,998 | lbs. | \$22.00 | \$3,849,956 |
| | 2019 | 1,711 | 90 | 154,026 | lbs. | \$20.00 | \$3,080,520 |
| | 2018 | 1,948 | 90 | 175,275 | lbs. | \$20.00 | \$3,505,500 |
| Irrigated Pasture | 2020 | 24,761 | | 250,000 | AUM | \$40.00 | \$10,000,000 |
| | 2019 | 36,121 | | 250,000 | AUM | \$35.00 | \$8,750,000 |
| | 2018 | 157,000 | | 250,000 | AUM | \$30.00 | \$7,500,000 |
| Rangeland | 2020 | 500,000 | | 120,699 | AUM | \$15.00 | \$1,810,470 |
| | 2019 | 500,000 | | 102,511 | AUM | \$15.00 | \$1,537,665 |
| | 2018 | 456,600 | | 120,016 | AUM | \$15.00 | \$1,800,240 |
| 2020 Totals | | 599,629 | | | | | \$88,527,628 |
| 2019 Totals | | 619,308 | | | | | \$84,510,237 |
| 2018 Totals | | 680,143 | | | | | \$75,771,622 |

Field Crop Total Value



Seed Crops

| <u>Crop</u> | <u>Year</u> | <u>Harvest Acres</u> | <u>Total Value</u> |
|---------------------|-------------|----------------------|--------------------|
| Alfalfa Seed | 2020 | 40 | \$46,000 |
| Alfalfa Seed | 2019 | 40 | \$33,000 |
| Alfalfa Seed | 2018 | 40 | \$52,000 |

Nursery Products

| <u>Crop</u> | <u>Year</u> | <u>Total Value</u> |
|----------------|-------------|--------------------|
| Nursery | 2020 | \$400,000 |
| Nursery | 2019 | \$317,549 |
| Nursery | 2018 | \$310,000 |



Total Fallowed Land

| | | |
|--------------------|-------------|---------------|
| Fallow Land | 2020 | 15,549 |
| | 2019 | 129,558 |
| | 2018 | 2,000 |



Vegetable Crops

| Vegetable Crop | Year | Acres | Production Per Acre | Total Units | Price Per Unit | Total Value |
|----------------|------|-------|------------------------|----------------|-------------------|--------------|
| Potato | 2020 | 3,497 | 475 cwt | 1,661,075 | \$8.65 | \$14,368,298 |
| | 2019 | 7,279 | 525 | 3,821,580 | \$8.25 | \$31,528,035 |
| | 2018 | 4,722 | 492 | 2,325,733 | \$7.93 | \$18,443,060 |
| Dry Onion | 2020 | 1,860 | 475 cwt | 883,595 | \$8.25 | \$7,289,659 |
| | 2019 | 2,229 | 393 | 876,154 | \$8.00 | \$7,009,234 |
| | 2018 | 1,396 | 446 | 622,616 | \$8.50 | \$5,292,236 |
| Garlic | 2020 | 314 | 140 cwt | 43,960 | \$22.00 | \$967,120 |
| | 2019 | 735 | 143 | 105,048 | \$21.00 | \$2,206,004 |
| | 2018 | 380 | 140 | 53,200 | \$28.00 | \$1,489,600 |
| Horseradish | 2020 | 825 | 2.5 ton | 2,062 | \$500.00 | \$1,030,825 |
| | 2019 | 392 | 2.5 | 980 | \$500.00 | \$490,000 |
| | 2018 | 333 | 2.5 | 833 | \$500.00 | \$416,250 |
| Wild Rice | 2020 | 3,259 | 1594 # | 5,195,760 | \$0.50 | \$2,597,880 |
| | 2019 | 3,750 | 1,490 | 5,587,500 | \$0.52 | \$2,905,500 |
| | 2018 | 2424 | 1,777 | 4,308,224 | \$0.65 | \$2,800,345 |
| Leafy Lettuce | 2020 | 42 | 8,385 # | 352,987 | \$1.75 | \$619,340 |
| | 2019 | 140 | 7,800 | 1,092,000 | \$1.18 | \$1,288,560 |
| | 2018 | 133 | 8,969 | 1,206,958 | \$1.24 | \$1,496,628 |

Total Vegetable and Specialty Crop

| Year | Acres | Amount |
|------|--------|--------------|
| 2020 | 9,797 | \$26,873,122 |
| 2019 | 14,525 | \$45,427,333 |
| 2018 | 9,390 | \$29,939,120 |

Livestock and Poultry

| Crop | Year | Number of Head Sold | Total Live Weight | Value/CWT | Total Value |
|--------------------------|-------------|---------------------|-------------------|----------------|---------------------|
| Cows/Calves | 2020 | 59,000 head | | \$1,300 | \$76,700,000 |
| | 2019 | 30,000 head | | \$1,250 | \$37,500,000 |
| | 2018 | 30,000 head | | \$1,250 | \$37,500,000 |
| Cull Cows/Bulls | 2020 | 3,031 | | \$750 | \$2,273,250 |
| | 2019 | 3,203 | | \$718 | \$2,302,191 |
| | 2018 | 3,712 | | | \$819,234 |
| Feeder Cattle | 2020 | 7,757 | | | \$5,817,750 |
| | 2019 | 9,149 | | | \$7,428,135 |
| | 2018 | 10,484 | | | \$8,950,376 |
| Sheep/Lambs/Goats | 2020 | 8,500 | 120 # | \$1.30 | \$1,326,000 |
| | 2019 | 8,000 | 120 # | \$1.48 | \$1,420,800 |
| | 2018 | 8,000 | 120 # | \$1.35 (lamb) | \$1,296,000 |



Livestock Update

The Modoc County lamb and sheep markets declined in the spring of 2020 to \$0.95 lb., and then rebounded to a three-week high of \$1.65 lb. The market was impacted by the fact that many of the packing plants were not accepting new inventory and were operating at 50% capacity due to the COVID-19 pandemic. The market began to see a positive move when meat orders increased as some restaurants were able to reopen for business.

In Modoc County, there are sheep and lambs that migrate between California and Nevada. At any time, there can be between 18,000 to 20,000 sheep and lambs grazing on private lands, U.S. Forest Service allotments, and Bureau of Land Management allotments.

Many producers from Oregon ship their cattle to Modoc County to be sold at the Modoc Auction Yard. An additional option for producers to market their products is video sales which are offered several times throughout the year in locations outside of Modoc County. In the spring, there is the Annual Alturas Bull Sale where Fifty-five Angus bulls, Hereford/Polled, and Hereford bulls were sold at an average of \$4,075.

Local Fire Update

Modoc County had twelve lightning strikes fires that burned on 313 acres. On July 24, 2020, the Caldwell Fire, the Allen Fire, and the Dalton Fire merged and were named the July Complex Fire. The July Complex destroyed 83,261 acres in Modoc and Siskiyou Counties and proceeded towards the Panhandle farm region of Tulelake, CA. The smoke from the fire reduced the mint quality at harvest and negatively impacted all field crops before harvest.



| | | |
|-------------------------------------|-------------|---------------|
| Total Acres of Wildfires | 2020 | 45,000 |
| | 2019 | 15,764 |
| | 2018 | 39,387 |

Government Payments and Assistance

In 2020, the US Farm Service Agency supported Modoc County with price support in the amount of \$1,030,000 for the Market Instability Program, \$1,080,000 for the Livestock Forage Program, and \$25,000 for the Cost Share Program to replace fencing destroyed by fire. The Coronavirus Food Assistance Program paid the following amount to producers:

Round 1 - \$6,720,000 and Round 2 - \$6,670,000.

Apiary Products and Services

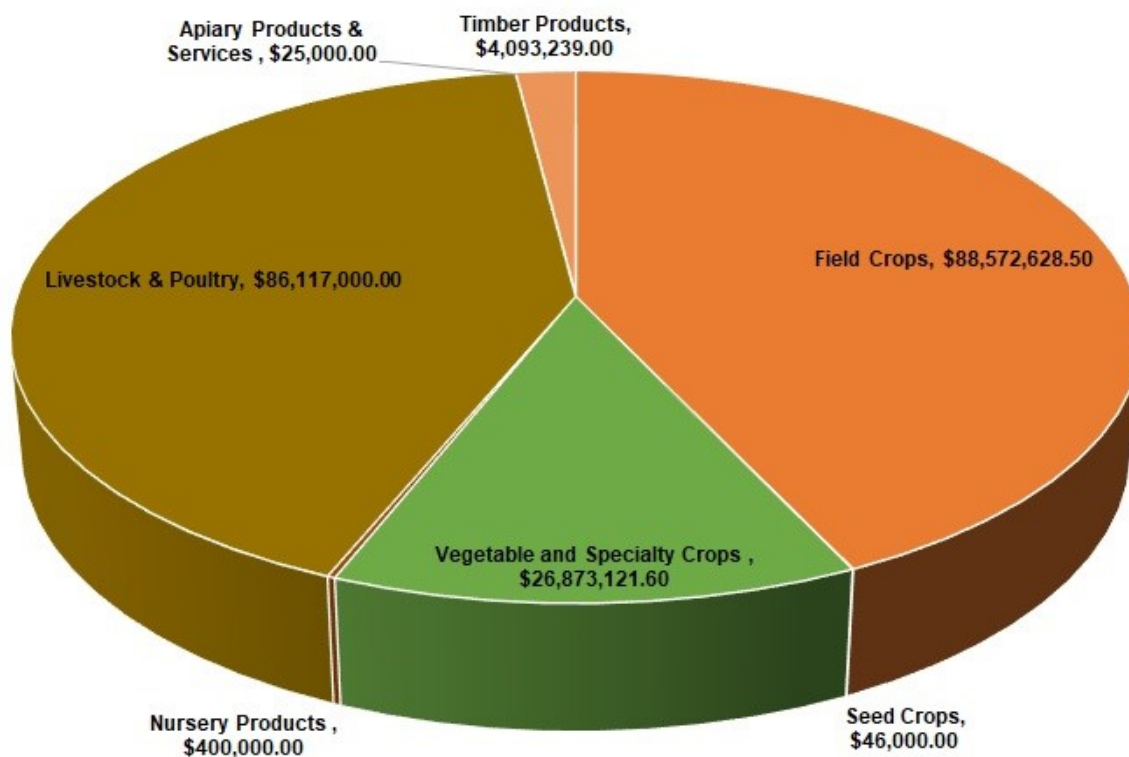
| Crop | Year | Production (# colonies) | Production of Honey (#) | Total Value |
|------------|------|-------------------------|-------------------------|-------------|
| Bees/Honey | 2020 | 392 Hives | 1,000 | \$25,000 |
| | 2019 | 920 Hives | 17,280 | \$34,560 |
| | 2018 | 500 Hives | 7,040 | \$14,784 |



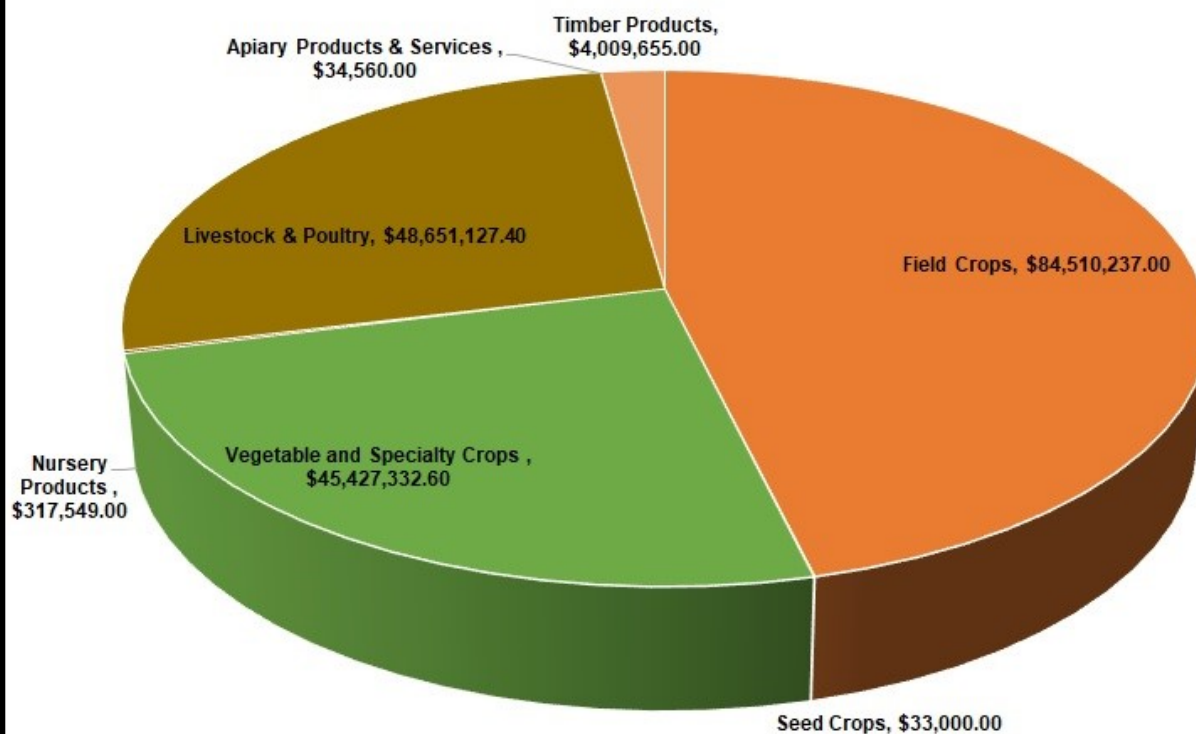
Timber Products

| Crop | Year | Volume/Production | Total Value |
|--------------------------|------|-------------------------------------------------------------------------------------------------------------------------|-------------|
| Timber | 2020 | 33,936 | \$4,080,270 |
| | 2019 | 29,066 | \$3,986,836 |
| | 2018 | 34,468 | \$5,177,940 |
| Fire Wood & Pole Permits | 2020 | | \$7,705 * |
| | 2019 | | \$18,055 |
| | 2018 | | \$24,240 |
| Christmas Tree | 2020 | | \$5,264 |
| | 2019 | *The number and value of the wood cutting permits is based on the availability of permits from the U.S. Forest Service. | \$4,764 |
| | 2018 | | \$4,590 |

2020 Commodity Value Crop Comparison



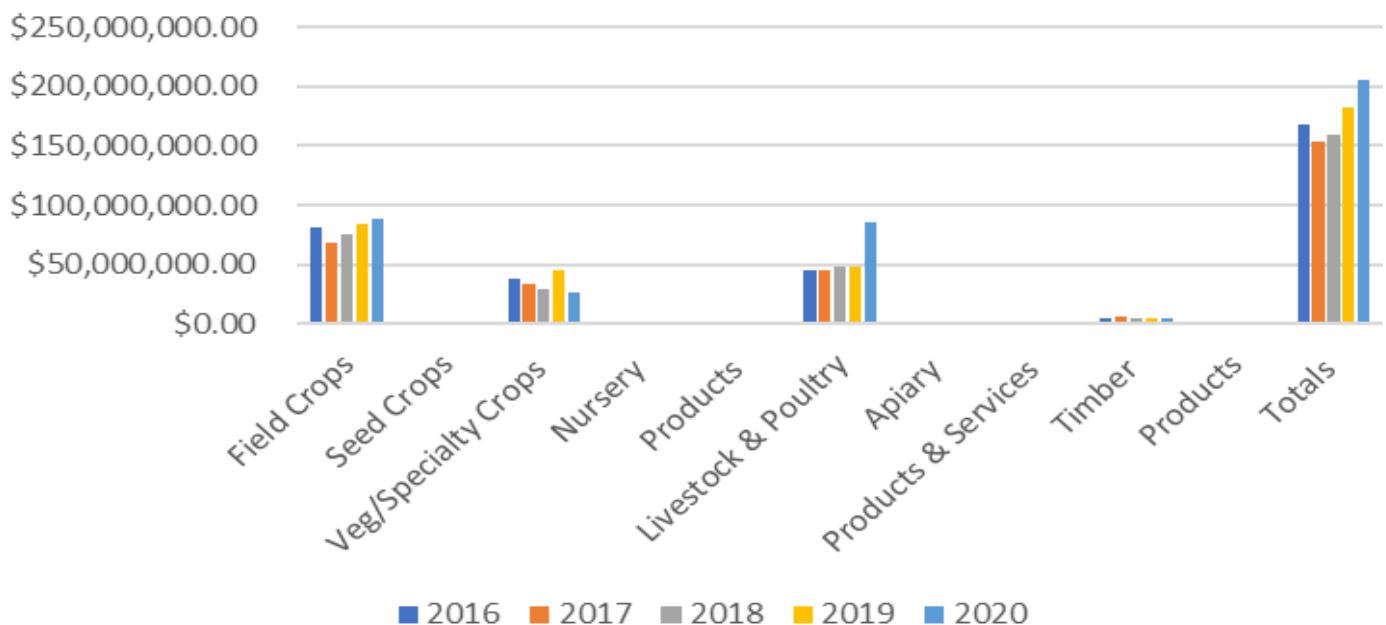
2019 Commodity Value Crop Comparison



Five Year Trends

| Commodity | 2016 | 2017 | 2018 | 2019 | 2020 |
|-----------------------------|---------------|---------------|---------------|---------------|---------------|
| Field Crops | \$81,969,407 | \$67,876,320 | \$75,771,662 | \$84,510,237 | \$88,572,629 |
| Seed Crops | \$17,740 | \$48,520 | \$52,000 | \$33,000 | \$46,000 |
| Vegetable & Specialty Crops | \$37,567,733 | \$33,649,473 | \$29,939,120 | \$45,427,333 | \$26,873,122 |
| Nursery Products | \$316,117 | \$313,696 | \$310,000 | \$317,549 | \$400,000 |
| Livestock & Poultry | \$44,618,270 | \$45,529,710 | \$48,565,610 | \$48,651,127 | \$86,117,000 |
| Apiary Products & Services | \$24,832 | \$43,396 | \$14,784 | \$34,560 | \$25,000 |
| Timber Products | \$4,014,257 | \$6,515,702 | \$5,183,247 | \$4,009,655 | \$4,093,239 |
| Totals | \$168,528,366 | \$153,976,817 | \$159,836,423 | \$182,983,461 | \$206,126,989 |

Modoc County 5 Year Trends



Pest Exclusion and Detection Program

Quarantine Inspections:

Fifty-six shipments of agricultural products were inspected for compliance with quarantine requirements, resulting in no live detections of pests. These inspections included two border station "Hold Notices" and three "Clean Straw Certifications" issued for interstate movement.

Pest Exclusion:

USDA Phytosanitary Certificates are documents stating a said plant or plant products is pest and disease free. The certificate is required by an importing country. Import requirements are designed to protect the importing countries' agricultural industry from insects and diseases that have the potential to arrive with the shipment, and to ensure a higher quality product.

USDA Phytosanitary Certificates Issues: 0

Importing Countries: 0

State Phytosanitary Certificates Issued: 1

State Phytosanitary certificates were issued for forest replanting.

In accordance with Section 2272 of the California Food and Agriculture Code, the Agricultural Report provides a brief account of efforts to exclude or eradicate exotic pests and best manage those that already exist in a manner most conducive to the protection of our environment.

Trapping Program

The Gypsy Moth is a significant pest because the caterpillars have voracious appetites for over three hundred species of trees and shrubs, posing a danger to North America's forests. The caterpillars defoliate trees, leaving trees vulnerable to diseases and other pests. The males are brown and can fly, while the females are white and unable to fly. Antennas are present in both sexes. The Modoc County Agriculture Department stationed seventy-five Pheromone Insect Traps throughout the County without Gypsy Moths being detected.

Gypsy Moths have not been detected in Modoc County!



Gypsy Moth Trap Locations:

- | | |
|---------------------|---------------------|
| • Alturas: 10 | • Howards Gulch: 2 |
| • Likely: 7 | • Adin Pass: 1 |
| • Cal Pines: 1 | • Rush Creek: 2 |
| • Cedarville: 6 | • Adin: 3 |
| • Lake City: 2 | • HWY 139: 13 |
| • Ft. Bidwell: 3 | • Newell: 3 |
| • Lily Lake: 3 | • Tionesta Road: 2 |
| • New Pine Creek: 4 | • Lookout Cutoff: 7 |
| • Davis Creek: 2 | • Lookout: 2 |
| • Canby: 2 | |

Modoc County Farmworker Program

Newell Migrant Center

The Newell Migrant Center is funded by USDA Rural Development, State of California Housing Development, and the Office of Migrant Housing. The Newell Migrant Center can house approximately forty-two families. The Center was to capacity during June and requested an extension for the harvest season through November. Center tenants worked in packing sheds, lettuce, strawberry, and onion fields. The Center complied with COVID-19 housing regulations and social distancing requirements in communal areas.

Castle Rock Farmworker Center

Castle Rock Farmworker Center is a County managed program for H2A farm labor. The program rents housing units to seasonal employees, generating \$87,840.00 for six months.

The Division of Weights and Measures

Modoc County Department of Agriculture works closely with the California Department of Food & Agriculture; Division of Measurement Standards to enforce weights and measures requirements. Ensuring fair competition for industry and accurate value comparison for consumers is the programs primary function. Modoc County has one hundred and ten locations and two hundred and fifty-two registered devices.



Device Type and Number of Inspections

Gas Dispensers 162

Vehicle Meters 16

Livestock Scales 64

LP Gas Pumps 10

Misc. Small Scales 30



Organic Farming

Modoc County had twenty-two organic growers and one organic handling/processing facility. Organic farmland was 189,321.09 acres, including rangeland. Operations ranged from small gardens to livestock, field crops, and specialty crop operations.

Certified Farmer's Market

There were two seasonal Certified Farmer's Markets with eight certificates issued. The Surprise Valley Farmers Market began in 2013. The Alturas Farmers Market began in 2017. Times of operation are the second and fourth Saturdays of the month from June to October.

Noxious Weeds and Pest Eradication

Modoc County encompasses approximately 2,689,920 acres that are surveyed for noxious weeds listed by the California Department of Food and Agriculture. Three noxious weeds were listed for eradication and six species were listed for the limited control treatment at one hundred and sixty sites within seven regions. The control agent was chemical and mechanical control.

Eradication Species: Scotch Thistle, Knapweed, Leafy Spurge

Limited Control Species: Yellow Star thistle, Dalmatian, Toadflax, Cripina, Russian Knapweed, Perennial Pepperweed



Yellow Star Thistle Program

The noxious weed crews treated 31.98 acres free of service for the patrons of Modoc County.

Noxious Weed Service

On ranches, farms, and private properties, the crew treated 343.61 acres for noxious weed control. The helicopter service was utilized for 222.5 acres.

Pest Management/Biological Control

| Pest Management | Biological Control | Program Size |
|-------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
| Alfalfa Weevil – <i>Hypera postica</i> | Parastici wasps – <i>Dibracnoides dyanstes</i> <i>Tetrastichus Incertus</i> | Established |
| Aphides, ect. | C7 Ladybird Beetle <i>Coccinella simiputata</i> | Established |
| Spotted Knappweed Squarrose Knappweed | Lesser Flower Weevil <i>Larinus minutus</i> | Established |
| Yellow Star thistle | Y.S.T Seedhead Weevil <i>Bangosternus occidentalis</i> Y.S.T Hairy Weevil <i>Eustenopus villosus</i> False Peacock Fly <i>Chaetorellia succinea</i> | Established |
| St. Johnswort – Klamath Weed | Klamath Weed Beetle <i>Chrysolina</i> sp. | Generally Distributed |
| Bull Thistle | Gall Gly 2 <i>Urophora stylata</i> | Release Sites |
| Cereal Leaf Beetle | CDFA Project | Established |

Air Pollution Control District

Prescribe Burn Program

The Air Pollution Department reviews smoke management plans and weather during a prescribed burn to alert areas that will experience air quality interruptions and to have the ability to delay a prescribed burn until weather conditions are more favorable. Twenty-three prescribed burns totaling 24,092 acres were monitored.



EBAM air monitors were deployed during wildfires at no cost, in addition to purchasing fifteen purple air sensors. Purple air sensors utilize laser counters to measure particulate matter in “real-time” through a WIFI connection.



What are PurpleAir Sensors?

PurpleAir sensors detect and measure air pollution in nearby areas, namely fine particulate matter (PM 2.5), smoke, and dust in the air. The sensors that APIFM is distributing are the PA-II Dual Laser Air sensors. To learn more about these sensors, please visit the PurpleAir website: <https://www.purpleair.com/sensors>.



PURPLE AIR MAP

<https://map.purpleair.com>

Air Pollution Control District

The Carl Moyer Memorial Air Quality Standards Attainment Program (Carl Moyer Program) provides grant funding for cleaner-than-required engines, equipment, and other sources of air pollution. The Carl Moyer Program is a partnership between California Air Resources Board (CARB) and California's thirty-five air districts. CARB works collaboratively with the air districts and other stakeholders to set guidelines and ensure the program reduces pollution and provides cleaner air for Californians.

The Carl Moyer Program provides monetary grants to private companies and public agencies to retrofit, repower, or replace heavy-duty engines beyond what the law requires. The grants are issued locally by Air Pollution Control Districts and Air Quality Management Districts.



2020-2021 Modoc County was awarded \$175,000 to assist in replacing engines.

The Air Pollution Control Program allocated \$151,492 to the following:

- \$60,000 was awarded to replace a 1993 engine with a 2019
- \$46,532 was awarded to replace a 1992 engine with a 2018
- \$44,960 was awarded to replace a 1980 engine with a 2019



Air Pollution Control District

The Funding Agricultural Replacement Measures for Emission Reductions (F.A.R.M.E.R) Program is a statewide program that provides incentive funding through local air districts for agricultural harvesting equipment, heavy-duty trucks, agricultural pump engines, tractors, and other equipment used in agricultural operations.



2020-2021 Modoc County was awarded \$132,000 to replace a 1981 engine with a 2016 engine.



California Clean Air Day supplies a micro-grant to educate the community on improving air quality. Modoc County held a coloring contest to bring awareness to air pollution and its causes. Youth ages thirteen and younger were invited to participate in a coloring contest. Information to enter the contest was provided to Modoc County School Districts, Modoc County Health Department, and Department of Agriculture. The Sheriff's Office advertised the contest on their Facebook page.



One hundred and twenty-five entrees were submitted, with seven selected to win and were awarded prizes. This was the first year that Modoc County participated in California Clean Air Day, and we are pleased with the local response that were received.





<http://www.co.modoc.ca.us>

