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California Department of Food and Agriculture

Agricultural Commissioners' Crop Reports

# Inyo-Mono Counties

2015-2018

# 2015 CROP AND LIVESTOCK REPORT



COUNTIES OF INYO AND MONO AGRICULTURAL COMMISSIONER'S OFFICE

207 W SOUTH STREET

BISHOP, CA 93514

# Counties of Inyo and Mono Agricultural Commissioner's Office 2015 Crop and Livestock Report

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The 2015 Crop and Livestock Report coincides with Inyo County's 150 year anniversary, and celebrates a long tradition of agriculture production in both Inyo and Mono Counties. Credits for the historical photos include:

Inyo County Centennial Program—cover and pages 5, 6, 7, and 8.  
Talbot Family Collection—pages 11 and 12.  
Bill and Yvonne Beaver Collection—page 13.





# Counties of Inyo & Mono

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*California Department of Food and Agriculture*

Brian Leahy, *Director*  
*California Department of Pesticide Regulation*

The Honorable Board of Supervisors,  
County of Inyo

Jeff Griffiths, *Chairman*

Matt Kingsley

Mark Tillemans

Rick Pucci

Dan Totheroh

The Honorable Board of Supervisors,  
County of Mono

Fred Stump, *Chairman*

Tim Alpers

Tim Fesko

Stacy Corless

Larry Johnston

I am pleased to present the 2015 Inyo and Mono Counties' Annual Crop and Livestock Report. This report is prepared pursuant to California Food and Agriculture Code 2279, and is a statistical compilation of agriculture production in Inyo and Mono Counties. These values reflect **gross** agricultural production within the two counties, and do not represent net profit or loss.

The gross combined agricultural production values for Inyo and Mono Counties in 2015 totaled \$49,907,000, representing a decrease of nearly 15% from 2014 production values. This loss is attributable to continued drought conditions and lower pricing for some of our leading commodities. The effects of the drought on area agriculture have been, at times, exacerbated by land and water management decisions by the City of Los Angeles Department of Water and Power, which owns a large amount of private land in each county.

Drought conditions allowed for less arable land for growing alfalfa. Pricing for these commodities declined about 25% between 2014 and 2015 according to survey data. Miscellaneous field crops had sharp declines in both counties as growers chose to plant less of these crops. Feeder cattle gain continues to decline due to unavailability of pasture, although some recovery was seen for this segment in Mono County during 2015.

I would like to thank our local agricultural producers for taking time out of their busy schedules to provide the data that allows this report to be compiled.

Sincerely,

A handwritten signature in blue ink, appearing to read "N. Reade".

Nathan D. Reade  
Agricultural Commissioner

## Counties of Inyo and Mono Agricultural Commissioner's Office

The mission of the Inyo and Mono Counties Agricultural Commissioner's Office is to promote and protect the agricultural industry of the counties, protect the environment, and to ensure the health and safety of all of its citizens. The department is also responsible for fostering confidence and equity in the marketplace.

The following are the main program areas:

### Human Safety and Environmental Protection

The County Agricultural Commissioner's Office protects the health and safety of all Inyo/Mono residents, its agricultural industries and its environment with a series of comprehensive regulatory programs designed to prevent the introduction of exotic pests and to ensure the safe use of pesticides. The five programs that exist to achieve these goals include:

- Pest Exclusion
- Pest Detection
- Pest Eradication
- Pest Management
- Pesticide Enforcement

### Consumer Protection and Product Quality

Product quality programs are designed to ensure the production and sales of quality eggs, honey, fruits, vegetables, and nursery and seed products. Quality standards that these programs ensure include maturity, grade, size, and weight. Packaging and labeling are also examined to ensure consumer expectations are met. The six programs include:

- Fruit and Vegetable Quality Control
- Organic Food Production
- Egg Quality Control
- Certified Farmers' Markets
- Nursery Inspection
- Seed Inspection

### Special Agricultural Services

The Agriculture Department also provides other mandated services, including:

- Apiary Inspection
- Crop Statistics
- Sustainable Agriculture



## Administrative and Education Outreach

Staff participate in a wide range of special projects intended to benefit Inyo/Mono citizens such as the legislative process, public information, education outreach efforts, as well as joint multi-agency and inter-county cooperative activities. Continuing education efforts sponsored by the Agriculture Department for pesticide safety help to ensure that local license-holders maintain adequate training.

## Eastern Sierra Weed Management Area

This division of the Agricultural Commissioner's office consists of 15 federal, state, county, and local agencies and entities. The Eastern Sierra Weed Management Area is dedicated to the eradication and control of invasive plant species in Inyo and Mono Counties through the cooperation and coordination of participating entities. The Eastern Sierra Weed Management Area participates in public outreach and education activities to ensure that people understand the threat of non-native weeds on our environment and agriculture industry.

## Weights and Measures

A gallon of gasoline, a cord of firewood, a loaf of bread, or a pound of fruits or vegetables...any item purchased is sold by weight, measure, or count. We protect the public from purchasing goods that are short weight or measure, and we protect businesses from giving their products and profits away when they use devices that could be inaccurate. We also verify that prices are scanned correctly at the counter, petroleum products meet quality standards, and weighmasters provide their customers accurate weighing devices. The eight programs in this category include:

- Weight Verification
- Measurement Verification
- Petroleum
- Transaction Verification
- Electronic Meters
- Compressed Gas Meters
- Weighmaster
- Device Repairmen Regulation

See page 18 for more information on this division.

## Owens Valley Mosquito Abatement Program

The purpose of this program is to provide the public with a consistent level of mosquito control that reduces the threat of disease transmission and the spread of large nuisance populations of mosquitoes. See page 19 for more information on this division.



# 2015

## Inyo County Crop and Livestock Statistics

### Inyo County General Information

County Seat:	Independence
County Population:	18,546 (2010 census)
Land Area:	10,142 sq. miles
Population Density:	1.83 persons per sq. mile
Highest Elevation:	14,505 ft. (Mount Whitney)
Lowest Elevation:	-282 ft. (Badwater, D.V.N.P.)

#### Unincorporated Areas

Big Pine

Cartago

Independence

Lone Pine

Olancha

Pearsonville

Shoshone

Tecopa

#### Incorporated Cities

Bishop

#### Land Ownership

Federal:	92.0%
City of Los Angeles:	3.9%
State of California:	2.4%
Private:	1.7%

Inyo County, the second largest county in California is situated on the extreme eastern edge of the State and has as its boundaries, Mono County to the north, the Nevada-California State line on the east, San Bernardino and Kern Counties on the south and Tulare and Fresno Counties on the other side of the Sierras to the west. Perhaps no County in the State offers such diversified topography and geological formations for it contains the highest peak in the U. S., Mt. Whitney, 14,501 ft. above sea level, from whose base the land drops away in a succession of arid and barren mountain ranges and desert plateaus housing a wealth of minerals, to Death Valley, the lowest depression, 280 ft. below sea level; the newest range of mountains on the continent, the jagged Sierras and at their foot along the western side of Owens Valley, the Alabama Hills, declared by scientists to be the oldest geologic formation.

Inyo County was created March 22, 1866, with a land area of 10,019 square miles, of which practically 300,000 acres is under cultivation at this time. Many of the desert valleys might be reclaimed by huge impounding dams, but this would be a gigantic undertaking for any one of them, necessitating either the services of the U. S. Reclamation Service or Department of the Interior, or almost unlimited capital from a corporation or private source.

- California Development Board Agricultural and Industrial Survey of Inyo County, 1917

#### Average Climate

	High	Low
Bishop:	98°	22°
Death Valley:	115°	37°





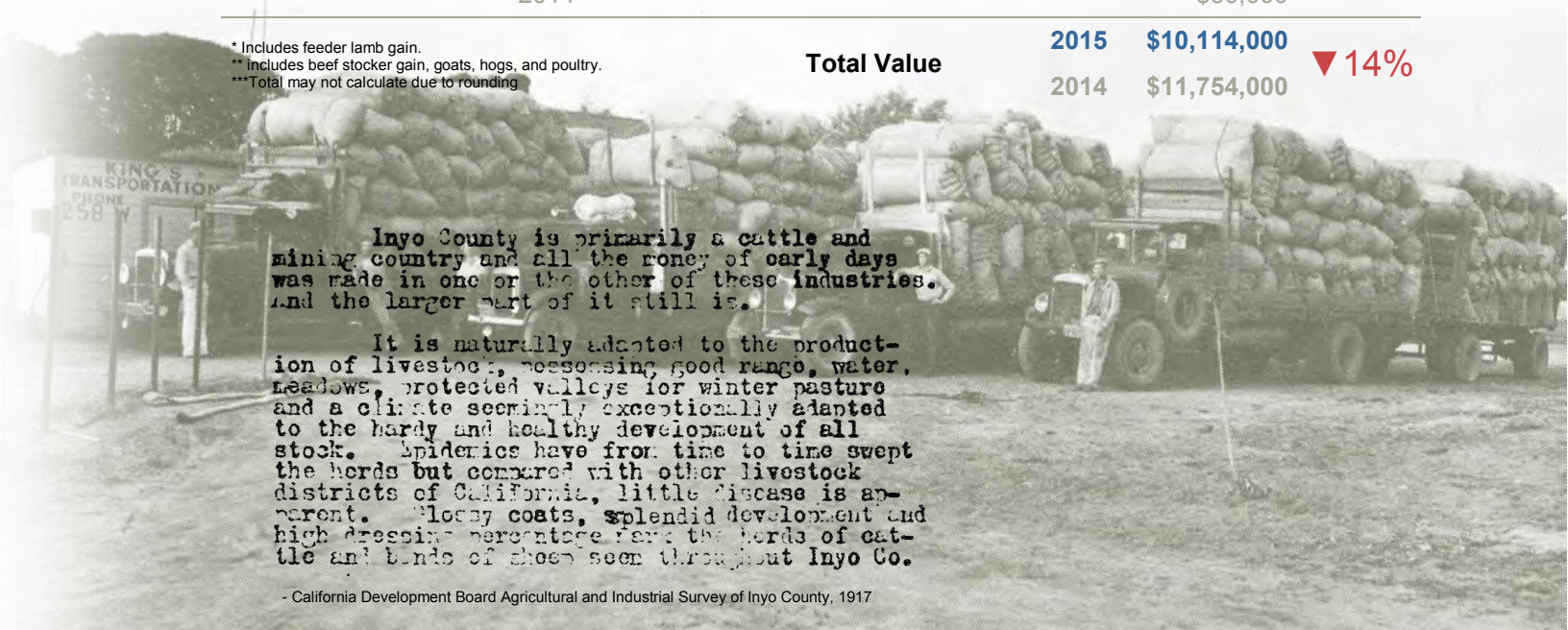
## Livestock & Livestock Products

	Year	Unit	Production	Value per Unit	Total***	
Cattle & Calves	2015	Head	7,680	\$1,243	\$9,550,000	▼ 15%
	2014		9,640	\$1,160	\$11,175,000	
Sheep & Lambs*	2015	Head	3,080	\$154	\$474,300	▼ 4%
	2014		3,430	\$145	\$496,000	
Eggs	2015	Dozen	4,020	\$4.50	\$18,100	▲ 4%
	2014		4,300	\$4.05	\$17,400	
Wool	2015	Lbs	23,900	\$1.59	\$38,000	▲ 30%
	2014		21,600	\$1.35	\$29,200	
Miscellaneous**	2015				\$34,000	▼ 6%
	2014				\$36,000	
<b>Total Value</b>				<b>2015</b>	<b>\$10,114,000</b>	▼ 14%
				<b>2014</b>	<b>\$11,754,000</b>	

\* Includes feeder lamb gain.

\*\* Includes beef stocker gain, goats, hogs, and poultry.

\*\*\*Total may not calculate due to rounding.



Inyo County is primarily a cattle and mining country and all the money of early days was made in one or the other of these industries. and the larger part of it still is.

It is naturally adapted to the production of livestock, possessing good range, water, meadows, protected valleys for winter pasture and a climate seemingly exceptionally adapted to the hardy and healthy development of all stock. Epidemics have from time to time swept the herds but compared with other livestock districts of California, little disease is apparent. Glossy coats, splendid development and high dressing percentage mark the herds of cattle and bands of sheep seen throughout Inyo Co.

- California Development Board Agricultural and Industrial Survey of Inyo County, 1917

## Field Crops

	Year	Unit	Production	Value per Unit	Total**		
Alfalfa Hay	2015	Ton	15,500	\$200	\$3,100,000	▼ 27%	
	2014		15,700	\$270	\$4,237,000		
Pasture, Irrigated	2015	Acre	14,000	\$70	\$980,000	▼ 4%	
	2014		14,500	\$70	\$1,017,000		
Pasture, Rangeland	2015	Acre	1,150,000	\$1.12	\$1,288,000	▲ 5%	
	2014		1,172,000	\$1.05	\$1,230,000		
Miscellaneous*	2015	-	655	-	\$824,000	▼ 18%	
	2014		807	-	\$1,010,000		
<b>Total Value</b>					<b>2015</b>	<b>\$6,192,000</b>	▼ 17%
					<b>2014</b>	<b>\$7,494,000</b>	

\* Includes garlic, grain hay, sudangrass, and other hay  
 \*\*Total may not calculate due to rounding

Alfalfa in Inyo County is the backbone of the agricultural and also of the cattle industry, for the stock wintered and finished in Owens Valley are fed almost exclusively on alfalfa hay in addition to the wild meadow grasses and volunteer growth of field grains. With increasing interest and growing importance of the dairying industry, alfalfa becomes ever more necessary to the farmer in this section. There were about 32,000 acres of standing alfalfa in 1916 and the following year saw a small increase, or approximately 41,000 acres. No section in Owens Valley may be specified as best suited to its production, for nearly every ranch in the Valley has its alfalfa patch.

- California Development Board Agricultural and Industrial Survey of Inyo County, 1917



## Nursery Products

	Year	Unit	Production	Value per Unit	Total	
Nursery Stock*	2015	Acre	121	-	\$1,620,000	▼ 9%
	2014		175	-	\$1,771,000	
<b>Total Value</b>				<b>2015</b>	<b>\$1,620,000</b>	▼ 9%
				<b>2014</b>	<b>\$1,771,000</b>	

\* Includes cacti and succulents, palms, and turf.

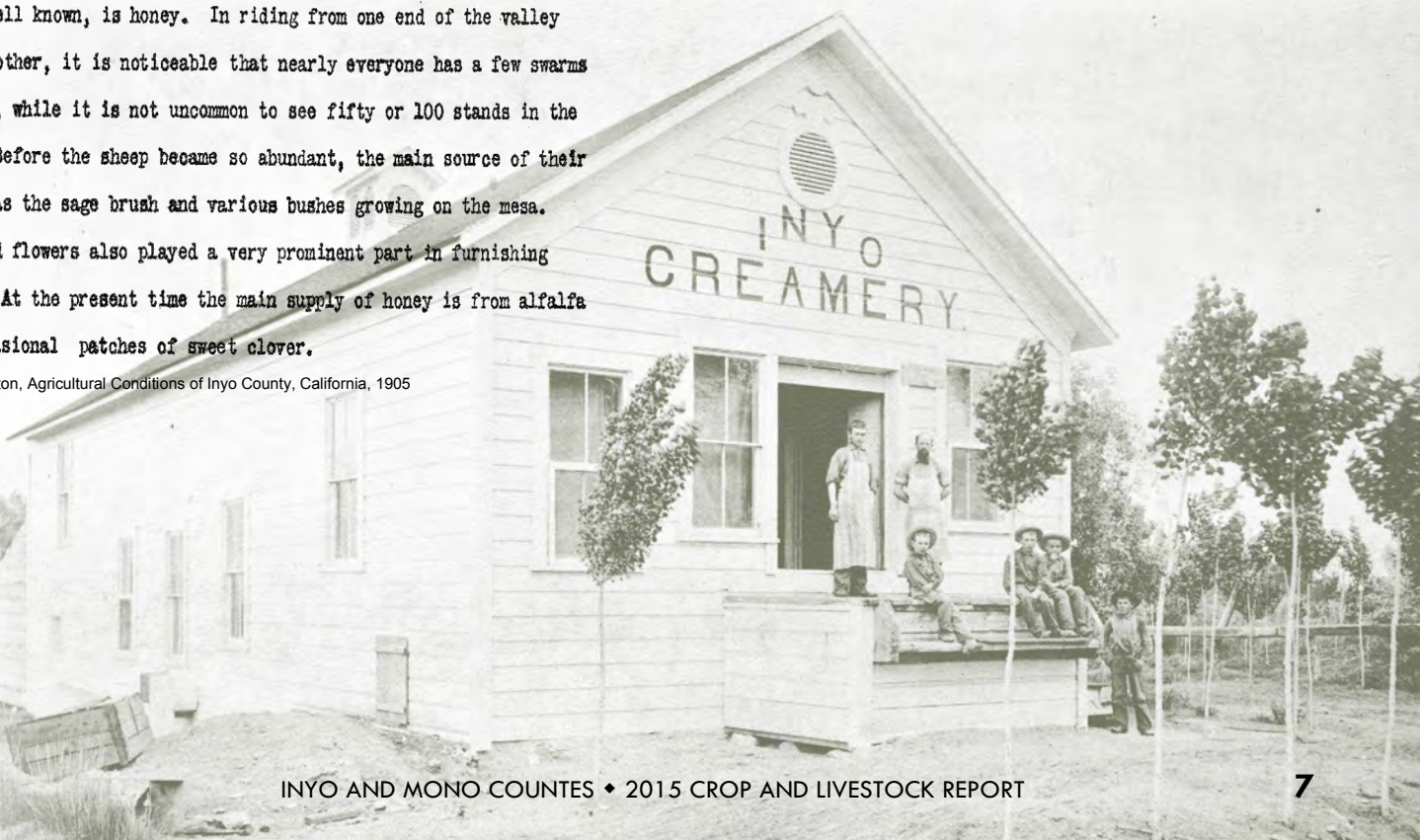
## Apiary Production

	Year	Unit	Production	Value per Unit	Total	
Honey	2015	Lb	154,000	\$2.01	\$310,000	▼ 20%
	2014		129,000	\$3.00	\$387,000	
Miscellaneous*	2015	-	-	-	\$5,400	▼ 75%
	2014		-	-	\$21,600	
<b>Total Value</b>				<b>2015</b>	<b>\$315,000</b>	▼ 23%
				<b>2014</b>	<b>\$409,000</b>	

\* Includes beeswax and pollen.

One of the staple crops of the valley, and one for which it is well known, is honey. In riding from one end of the valley to the other, it is noticeable that nearly everyone has a few swarms of bees, while it is not uncommon to see fifty or 100 stands in the yard. Before the sheep became so abundant, the main source of their honey was the sage brush and various bushes growing on the mesa. The wild flowers also played a very prominent part in furnishing honey. At the present time the main supply of honey is from alfalfa and occasional patches of sweet clover.

- J.S. Cotton, Agricultural Conditions of Inyo County, California, 1905



## Fruit & Nut Crops

	Year	Unit	Production	Value per Unit	Total	
Miscellaneous*	2015	Acres	32	-	\$203,000	▲ 8%
	2014		32	-	\$188,000	
<b>Total Value</b>				<b>2015</b>	<b>\$203,000</b>	▲ 8%
				<b>2014</b>	<b>\$188,000</b>	

\* Includes almonds, apples, apricots, blackberries, cherries, dates, figs, grapes (table), grapes (wine), nectarines, peaches, pears, pecans, persimmons, plums, pomegranates, raspberries, strawberries, and walnuts.

## Vegetable Crops

	Year	Unit	Production	Value per Unit	Total	
Miscellaneous*	2015	Acres	9	-	\$45,000	▲ 3%
	2014		10	-	\$43,600	
<b>Total Value</b>				<b>2015</b>	<b>\$45,000</b>	▲ 3%
				<b>2014</b>	<b>\$43,600</b>	

\* Includes artichokes, beans, brassicas, carrots, cucumbers, eggplant, garlic, herbs, leafy greens, melons, onions, peppers, pumpkins, radishes, squash, sweet corn, tomatillos, tomatoes, and tubers.

### APPLES

Authorities: M. M. Nordyke, Horticultural Commissioner, Inyo County, Bishop;  
 U. G. Smith, Bishop, ranch 3 mi. w.  
 W. H. Alcorn, Supt., Red Mountain Fruit Ranch, Big Pine, ranch 9½ mi. s. w.  
 Neel Bell, Independence, ranch 3 mi. n.w.  
 R. A. Wilder, Manzanar, ranch 1 mi. w.

### EXTENT AND PROSPECTS

Apples next to alfalfa are the most promising and important agricultural product. In 1917 there were in the County about 60,000 non-bearing and 54,000 bearing trees. There is hardly any section of the County unadapted for their production and the medals and prizes awarded to Inyo County apple in other and larger apple districts of the State as well as at expositions and fairs, mark it as a section where the finest fruit may be raised. Pears are fast coming next to apples in importance and profit here.

- California Development Board Agricultural and Industrial Survey of Inyo County, 1917



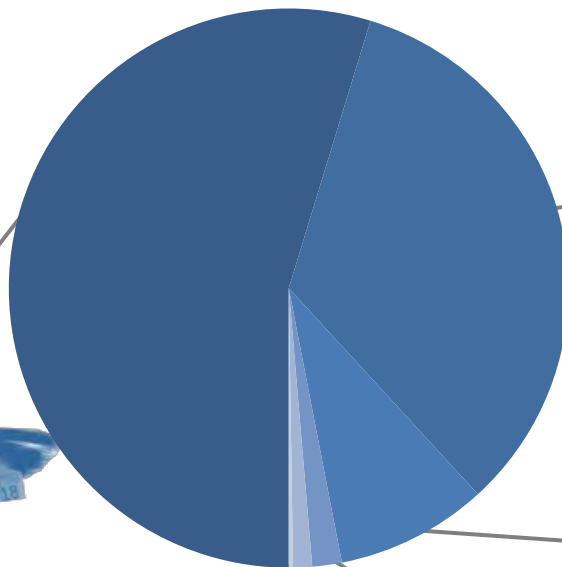
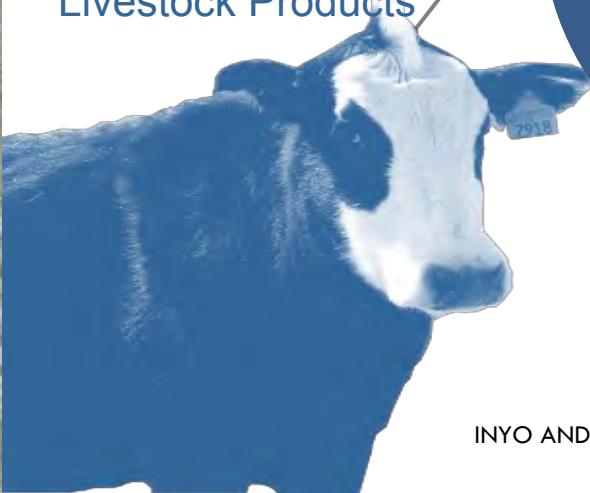
## Inyo County Totals

	Year	Total	
Livestock & Livestock Products	2015	\$10,114,000	▼ 14%
	2014	\$11,754,000	
Field Crops	2015	\$6,192,000	▼ 17%
	2014	\$7,494,000	
Nursery Products	2015	\$1,620,000	▼ 9%
	2014	\$1,771,000	
Apiary Production	2015	\$315,000	▼ 23%
	2014	\$409,000	
Fruit & Nut Crops	2015	\$203,000	▲ 8%
	2014	\$188,000	
Vegetable Crops	2015	\$45,000	▲ 3%
	2014	\$43,600	
<b>Total Value</b>	<b>2015</b>	<b>\$18,489,000</b>	<b>▼ 15%</b>
	<b>2014</b>	<b>\$21,660,000</b>	

## Inyo County Agricultural Production

**55%**

Livestock and  
Livestock Products



**33%**

Field Crops



**9%**

Nursery Products



**1%**  
Fruit & Nut  
and  
Vegetable Crops



**2%**  
Apiary



# 2015

## Mono County Crop and Livestock Statistics

### Mono County General Information

County Seat:	Bridgeport
County Population:	14,202 (2010 census)
Land Area:	3,044 sq. miles
Population Density:	4.67 persons per sq. mile
Highest Elevation:	14,252 ft. (White Mountain)

#### Unincorporated Areas

Benton  
 Bridgeport  
 Chalfant Valley  
 Coleville  
 Hammil Valley  
 June Lake  
 Lee Vining  
 Topaz  
 Tom's Place  
 Walker

#### Incorporated Cities

Mammoth Lakes

#### Land Ownership

Federal:	84.7%
City of Los Angeles:	3.2%
State of California:	3.6%
Private:	6.5%

#### Average Climate

	High	Low
Bridgeport:	81°	8°
Hammil Valley:	98°	22°

The Coleville-Topaz area, known as Antelope Valley, is located at an elevation of 5,000 feet. It is used by some ranchers as a winter grazing area and ranch headquarters. Other ranchers who have access to lower elevation lands use it as a summer grazing area.

Meadow hay and alfalfa is raised here. The soils are sandy and gravelly. The meadows sit on a relatively high water table in some locations. Irrigation water comes from the West Walker River and its tributaries.

Bridgeport and Long Valley areas, located at 6,000 feet and above, are irrigated mountain meadows that are used for summer and fall grazing. The soils there are sandy loam to gravelly sand. They sit on relatively high water tables.

The Hammil Valley, an extension to the north of the Owens Valley, is a desert area at approximately 5,000 feet elevation. Alfalfa is grown. Cattle can be grazed here on pastures and desert brush through the winter. Like the Owens Valley, the soils are deep on the floor of the valley and become shallow and gravelly as they extend up the slopes. They range from sand on the slopes to loam on the floor of the valley. Irrigation water comes from wells and streams flowing out of the White Mountains.

The Oasis area is located at the extreme southeastern tip of Mono County on the east side of the White Mountains in Fish Lake Valley. Alfalfa is raised. The elevation is approximately 5,000 feet. The soils are similar in physical character to those in the Hammil Valley.

- "Agriculture in Inyo & Mono Counties", P. Dean Smith, Farm Advisor, 1972



## Livestock & Livestock Products

	Year	Unit	Production	Value per Unit	Total***	
Cattle & Calves	2015	Head	8,200	\$1,243	\$10,193,000	▼ 7%
	2014		9,400	\$1,167	\$10,971,000	
Sheep & Lambs*	2015	Head	13,900	\$154	\$2,141,000	▲ 2%
	2014		14,455	\$145	\$2,096,000	
Wool	2015	Lbs	107,800	\$1.59	\$171,000	▲ 39%
	2014		91,400	\$1.35	\$123,000	
Miscellaneous**	2015				\$1,425,000	▲ 12%
	2014				\$1,276,000	
<b>Total Value</b>				<b>2015</b>	<b>\$13,930,000</b>	▼ 4%
				<b>2014</b>	<b>\$14,466,000</b>	

\* Includes feeder lamb gain.

\*\* includes beef stocker gain, goats, hogs, and poultry.

\*\*\*Total may not calculate due to rounding

### LIVE STOCK AND GRAZING

No dollars and cents figures are at hand that will give a correct estimate of the importance of stockraising in Mono County, but the vast herds of cattle and thousands of sheep that range the rich mountain and valley pastures each year indicate this industry as a significant factor in the total commercial wealth of the county. Beef cattle are raised in large numbers, while those bred for stock run far up into the thousands. The animals fatten rapidly, grow to good size, and are very healthy, disease being little known. Cattle sell readily at good prices.

Few thoroughbred horses are raised, but large numbers of standard and common are bred each year and find a ready market.

Mono County ranges about 200,000 sheep each year, 35,000 of which belong in the county, the balance being brought in from surrounding counties and the State of Nevada. Sheep are shorn once a year, averaging eight pounds of wool to a sheep. They are a large, healthy stock, disease among them being practically unknown. The wool and mutton command the highest prices in the market.

Both mountains and valleys supply excellent grazing ground during the summer, there being over twenty different varieties of brush and fattening grasses for them to feed on. An abundance of pasturage is always assured, the snows on the higher mountains at the sources of the streams used for irrigation not melting until quite late in the season. In some of the mountains the snow is perpetual.

In winter very little feeding is necessary, and in the milder years stock pasture all winter.

Formerly stock grazing used to be carried on in the county on a much larger scale, the county deriving much revenue from this source. Some years ago, however, the government established a forest reserve throughout considerable of the mountain district, and, as a result, only a limited number of sheep are allowed grazing privileges.

- Mono County California: The Land of Promise for the Man of Industry, F.W. McIntosh, 1908

## Field Crops

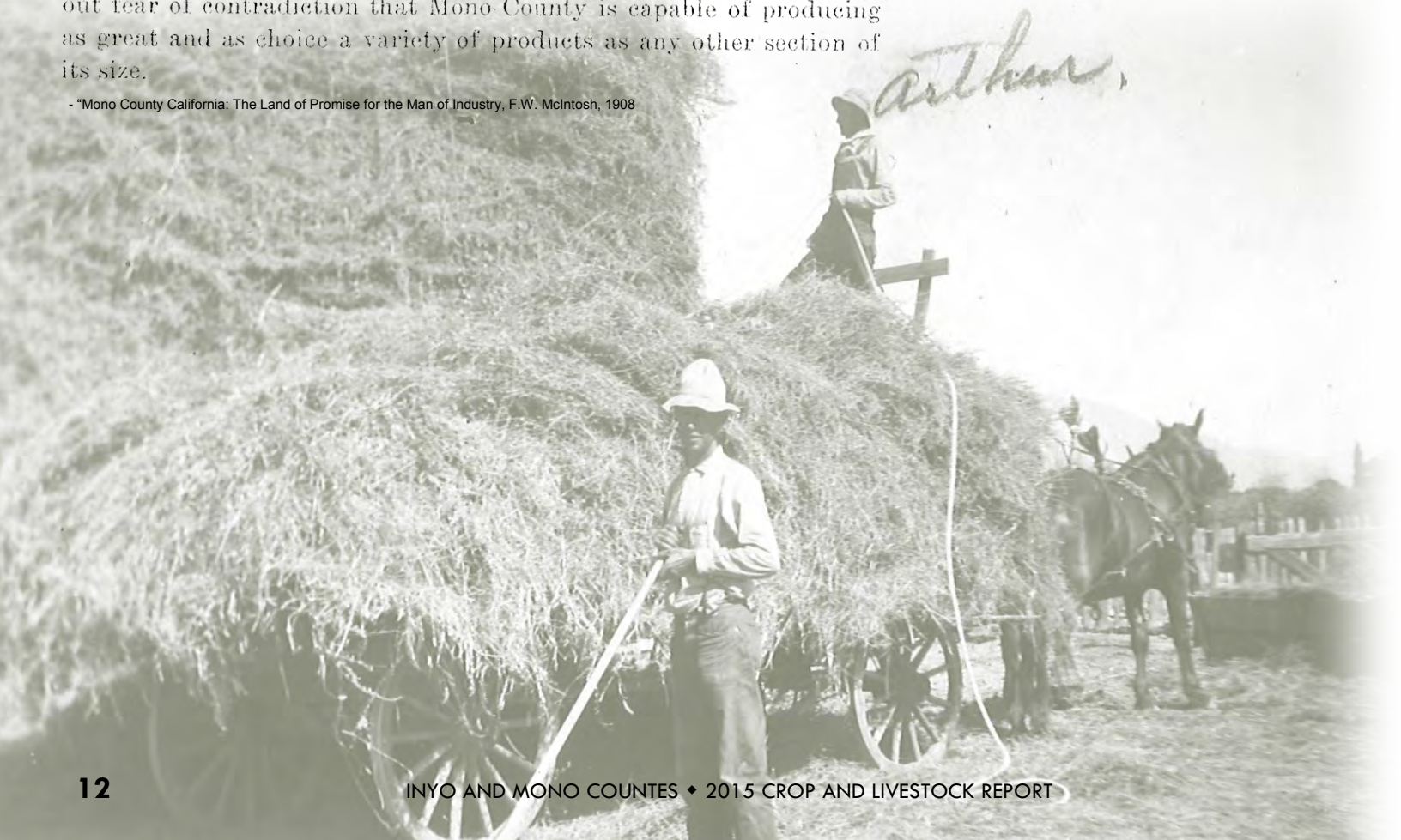
	Year	Unit	Production	Value per Unit	Total**	
Alfalfa Hay	2015	Ton	50,600	\$200	\$10,120,000	▼ 27%
	2014		52,650	\$265	\$13,952,000	
Pasture, Irrigated	2015	Acre	43,000	\$70	\$3,010,000	▼ 1%
	2014		43,600	\$70	\$3,049,000	
Pasture, Rangeland	2015	Acre	1,055,000	\$1.35	\$1,424,000	▲ 1%
	2014		1,060,000	\$1.33	\$1,410,000	
Miscellaneous*	2015	-	2,600	-	\$2,685,000	▼ 32%
	2014		3,220	-	\$3,938,000	
<b>Total Value</b>				<b>2015</b>	<b>\$17,239,000</b>	<b>▼ 23%</b>
				<b>2014</b>	<b>\$22,349,000</b>	

\* Includes garlic, grain hay, sudangrass, and other hay  
 \*\*Total may not calculate due to rounding

Droughts are unknown, the perpetual snows of the higher mountains insuring an abundance of water even in the most unfavorable years.

The lands lying contiguous to the streams are very rich, while the sagebrush lands, when put under cultivation, are found to be wonderfully productive. With the aid of irrigation the area of tillable lands has been vastly increased, and there are yet thousands of acres waiting to be reclaimed. The land yields generously wherever soil and water are united through irrigation, and it may be said without fear of contradiction that Mono County is capable of producing as great and as choice a variety of products as any other section of its size.

- "Mono County California: The Land of Promise for the Man of Industry, F.W. McIntosh, 1908







## Fruit & Nut Crops

	Year	Unit	Production	Value per Unit	Total	
Miscellaneous*	2015	Acres	18	-	\$38,800	▼ 12%
	2014		18	-	\$44,100	
<b>Total Value</b>				<b>2015</b>	<b>\$38,800</b>	▼ 12%
				2014	\$44,100	

\* Includes grapes (wine), pome fruit, and stone fruit.

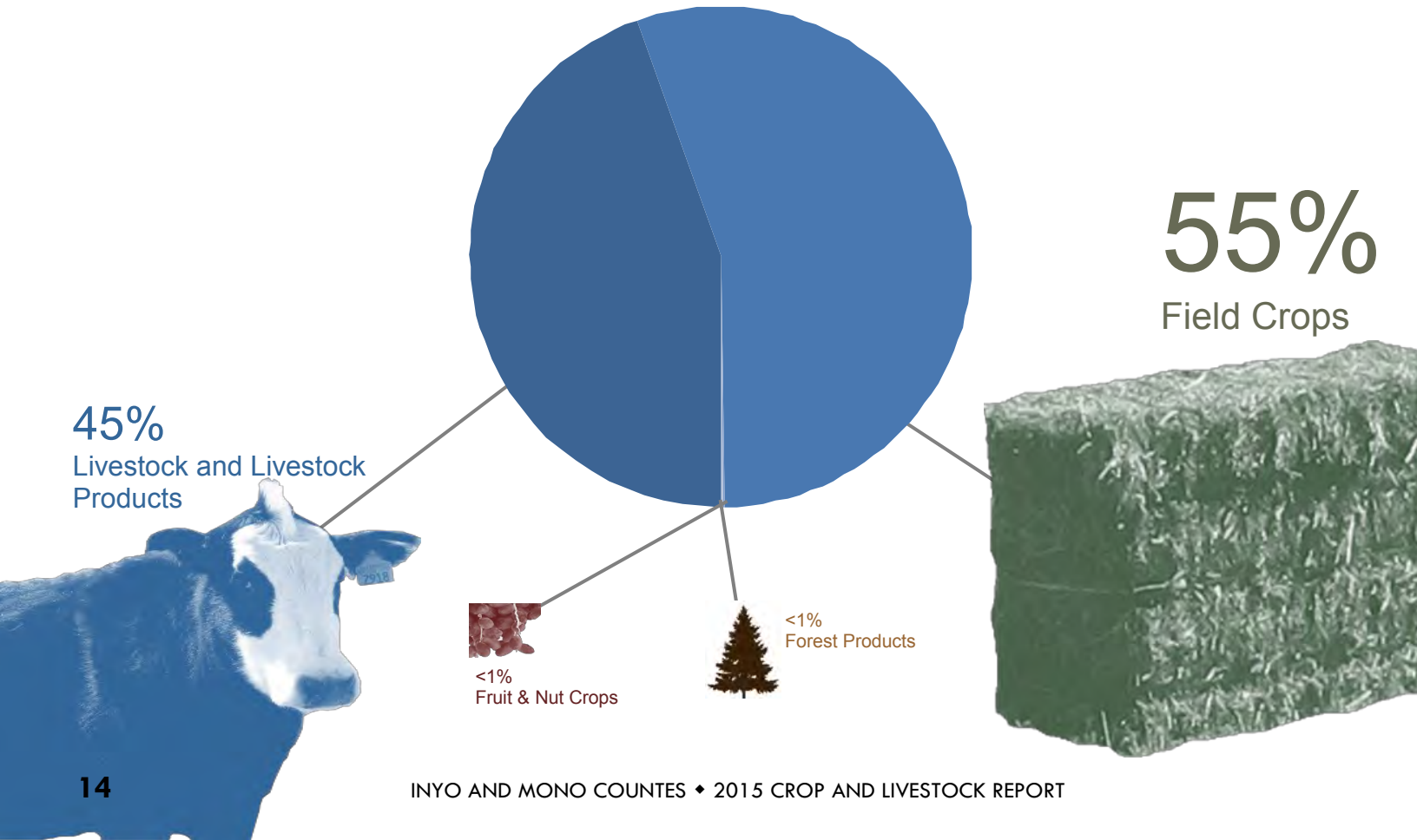
## Forest Products

	Year	Total	
Timber and Firewood	2015	\$34,400	▼ 61%
	2014	\$87,400	
<b>Total Value</b>		<b>2015</b>	▼ 61%
		2014	

## Mono County Totals

	Year	Total	
Livestock & Livestock Products	2015	\$13,930,000	▼ 4%
	2014	\$14,466,000	
Field Crops	2015	\$17,239,000	▼ 23%
	2014	\$22,349,000	
Fruit & Nut Crops	2015	\$38,800	▼ 12%
	2014	\$44,100	
Forest Products	2015	\$34,400	▼ 61%
	2014	\$87,400	
<b>Total Value</b>	<b>2015</b>	<b>\$31,242,000</b>	<b>▼ 15%</b>
	<b>2014</b>	<b>\$36,947,000</b>	

## Mono County Agricultural Production





## Inyo/Mono Combined Five Year Comparison



	2011	2012	2013	2014	2015
Inyo County Totals	\$26,270,000	\$25,693,000	\$25,648,000	\$21,659,000	\$18,489,000
Mono County Totals	\$53,143,000	\$51,588,000	\$48,503,000	\$36,947,000	\$31,242,000
<b>Combined Totals</b>	<b>\$79,413,000</b>	<b>\$77,281,000</b>	<b>\$74,151,000</b>	<b>\$58,606,000</b>	<b>\$49,725,000</b>

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### STATISTICS OF AGRICULTURE.

TABLE IX.—LIVE STOCK AND ITS PRODUCTIONS, BY COUNTIES: 1880.  
CALIFORNIA.

Counties.	LIVE STOCK ON FARMS JUNE 1, 1880.							DAIRY PRODUCTS.			
	Horses.	Mules and asses.	Working oxen.	Milch cows.	Other cattle.	Sheep, exclusive of spring lambs.	Swine.	Wool, spring clip of 1880.	Milk sold, or sent to butter and cheese factories in 1879.	Butter made on farms in 1879.	Cheese made on farms in 1879.
	Number.	Number.	Number.	Number.	Number.	Number.	Number.	Pounds.	Gallons.	Pounds.	Pounds.
The State	237,710	28,343	2,288	210,078	451,941	4,152,349	603,550	16,798,036	12,353,178	14,084,405	2,566,618
Alameda	8,134	488	11	5,413	6,233	27,284	7,846	205,955	316,489	250,703	5,460
Alpine	220	3	3	319	502	26	192	90	7,900	32,875	100
Amador	2,763	201	43	2,248	4,630	25,008	6,775	64,808	29,928	57,412	2,826
Butte	6,357	1,828	51	2,715	8,000	86,296	15,750	323,483	6,530	82,325	290
Calaveras	1,756	82	38	2,049	3,523	52,075	3,458	161,351	2,477	38,215	2,550
Colusa	8,514	4,098	15	2,323	3,840	168,528	28,570	661,782	2,607	54,585	2,600
Contra Costa	7,612	549	14	4,270	4,746	7,629	9,471	27,293	2,150	197,899	32,300
Del Norte	297	58	10	2,189	1,686	1,453	1,302	6,462	73,233	248,950	57,300
El Dorado	2,175	100	127	3,441	8,929	18,000	3,954	73,233	8,715	192,535	23,650
Fresno	5,230	775	64	2,540	42,908	369,243	26,118	1,477,000	2,270	68,754	1,268
Humboldt	5,028	609	198	10,439	17,631	186,038	14,037	647,492	65,608	903,258	14,137
Inyo	3,287	246	63	1,273	5,997	9,574	2,672	35,382	510	197,899	32,300
Kern	3,705	661	126	1,576	32,989	152,041	18,698	666,427	16,580	48,136	2,560
Lake	2,144	154	9	1,477	3,441	49,534	8,691	185,418	3,251	102,831	2,500
Lassen	4,634	196	62	1,953	19,243	28,649	1,830	92,748	1,118	154,287	14,300
Los Angeles	8,654	802	4	4,965	7,061	330,350	33,639	1,499,895	211,850	360,731	6,100
Marin	2,630	68	89	24,698	7,062	373	10,252	2,080	3,170,524	2,507,888	65,100
Mariposa	1,016	126	45	631	2,727	31,265	8,036	163,896	500	8,180	113,000
Mendocino	4,651	512	119	4,470	8,664	295,869	14,692	990,264	4,628	278,493	1,730
Merced	3,601	1,090	3	2,184	20,504	167,749	12,982	631,725	395	61,496	3,040
Modoc	5,995	412	116	2,364	16,884	23,372	3,632	71,378	92,610	3,670	3,670
Mono	1,150	43	129	669	2,899	69	272	350	500	32,223	113,000
Monterey	6,604	252	1	5,600	19,149	126,644	20,261	523,612	4,830	557,516	62,260
Napa	4,275	553	119	4,093	5,489	46,202	10,624	157,065	47,945	181,833	62,260
Nevada	1,781	48	18	1,797	3,238	2,791	3,195	8,002	37,390	63,957	890
Placer	2,453	184	74	1,857	2,751	58,805	5,893	233,901	5,065	72,017	550
Plumas	1,918	99	72	3,584	5,032	6,517	1,310	23,608	3,020	398,301	8,100
Sacramento	8,525	277	1	7,434	8,982	117,031	11,100	509,834	1,244,468	539,339	182,070
San Benito	4,131	183	87	2,712	7,552	81,938	7,971	323,225	1,550	120,410	173,320
San Bernardino	3,121	129	57	2,101	5,361	48,538	5,019	250,338	50,522	147,980	9,340
San Diego	4,784	350	25	3,662	10,124	148,252	7,602	811,308	16,823	72,092	472
San Francisco	800	3	3	4,213	439	8,136	8,136	448,990	5,447,378	13,916	22,995
San Joaquin	13,008	1,706	2	3,731	12,711	182,597	18,859	448,990	105,251	271,064	22,995
San Luis Obispo	5,464	191	4	13,177	22,677	143,107	17,981	643,853	17,400	1,148,023	193,850
San Mateo	4,475	175	12	6,691	7,158	629	5,384	2,819	740,049	288,031	288,215
Santa Barbara	4,399	365	15	3,801	5,528	132,923	15,857	692,415	9,592	194,969	99,670
Santa Clara	9,763	233	35	9,158	12,054	19,837	16,153	73,024	295,885	450,370	738,450
Santa Cruz	2,625	90	8	3,445	1,987	610	4,265	3,640	42,882	350,960	102,500
Shasta	3,565	148	90	1,963	7,299	37,685	12,109	88,142	50	71,417	125
Sierra	1,292	78	92	1,382	2,471	1,151	685	3,625	1,120	171,803	600
Siskiyou	5,353	953	60	3,609	23,677	31,841	8,601	135,164	3,130	233,043	12,425
Solano	7,135	1,391	2	4,075	6,763	72,289	17,420	290,996	7,968	244,299	19,230
Sonoma	19,710	393	125	18,336	12,176	156,554	24,337	664,721	182,016	1,695,523	217,860
Stanislaus	5,908	2,963	1	2,174	8,886	113,939	12,788	487,516	18,775	62,240	4,820
Sutter	8,478	958	1	1,923	2,298	44,484	14,969	152,367	1,924	77,362	7,652
Tehama	5,147	1,171	146	1,869	7,016	121,963	18,404	484,763	10,950	30,635	4,800
Trinity	875	288	14	608	2,336	24,150	1,064	80,115	12,390	133,482	8,360
Tulare	6,960	630	22	3,773	7,090	126,176	36,287	460,080	8,035	77,004	1,890
Tuolumne	2,244	232	48	2,306	6,531	17,983	6,446	58,535	290	60,078	18,300
Ventura	3,579	243	1,026	2,490	114,013	25,498	25,498	728,932	276,721	164,520	22,948
Yolo	7,747	1,681	3,315	3,315	3,458	67,461	24,353	276,721	23,330	42,039	100
Yuba	4,012	375	69	2,312	4,559	61,844	10,112	194,163	33,330	42,039	100

# Direct Marketing

## Certified Farmer's Market

24 growers participated in the 2015 Farmers Markets.

Locations included:

**Mammoth Lakes**

**Bishop**

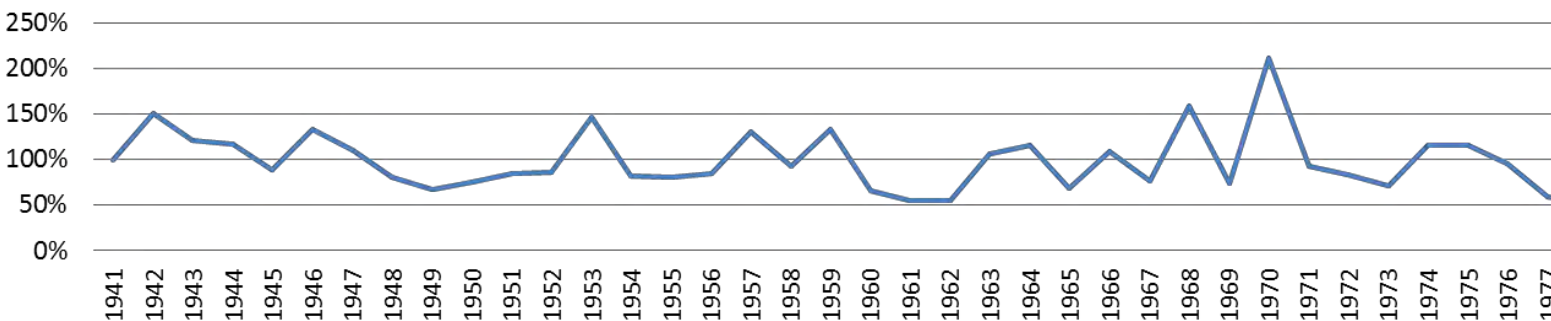
**Independence**

**Lone Pine**

Commodities sold included:

basil, chervil, chives, cilantro, dill, marjoram, parsley, rosemary, sage, tarragon, thyme, lavender, oregano, lemongrass, mint, mustard, paprika, spinach, sunflower, corn, eggplant, tomato, squash, cucumber, peppers, green onions, potatoes, pumpkins, okra, onions, beets, garlic, asparagus, artichoke, celery, carrots, radishes, rutabaga, leek, lettuce, broccoli, cauliflower, kale, arugula, sweet potatoes, Swiss chard, bok choy, cabbage, collard, Brussels sprouts, zucchini, shallots, tomatillos, turnip, grapes, apples, peaches, pears, nectarines, apricots, cherries, plums, persimmons, pomegranate, pluot, rhubarb, figs, watermelon, cantaloupe, honeydew, raspberries, blackberries, boysenberries, strawberries, peas, sweet peas, various bean varieties, almonds, walnuts, cut flowers, honey, and eggs.

# Eastern Sierra Runoff Chart



# Sustainable Agriculture and Outreach

## Invasive Plant Targets

Pest	Agent/Mechanism	Number of Sites	Gross Acres
Puncturevine	Biological Control	14 sites	~
Dalmatian Toadflax	Mechanical	2 sites	220
Yellow Starthistle	Mechanical	1 site	10
Russian Knapweed	Herbicide	3 sites	100
Canada Thistle	Herbicide	8 sites	400
Spotted Knapweed	Herbicide	3 sites	4
Halogeton	Mechanical	5 sites	4,400
Scotch Thistle	Herbicide	8 sites	1,311
Camelthorn	Herbicide	1 site	40
Saltcedar	Herbicide	1 site	80
Perennial Pepperweed	Herbicide	53 sites	12,000

## Pest Exclusion

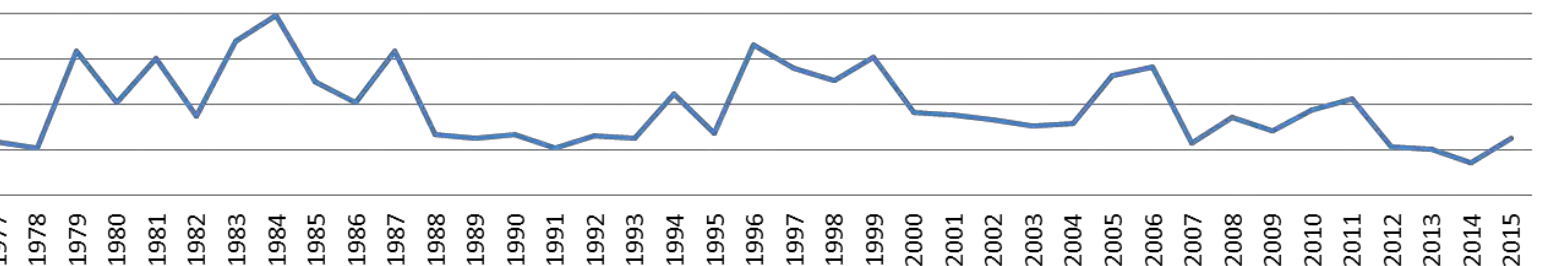
Exotic and/or target pests in incoming plant material via UPS, FedEx, and US Mail: 1000+ Shipments Inspected

## Outreach Program

During 2015, the Inyo/Mono Counties' Agriculture Department conducted:

- 2 pesticide safety seminars with over 100 professional card holders and private applicators attending, to meet California state continuing education requirements;
- 2 educational workshops for local groups;
- 3 meetings with local Farmer's Markets;
- Participation with the Owens Lake Committee and Integrated Regional Water Management Planning Group to resolve major water issues in the Owens Valley.

The Department's inspection surveillance area, which encompasses over 10,000 square miles, provided outreach from northern Mono County, including several California and Nevada field crop growers located in the Antelope Valley area, to the southern tip of Inyo County, including a large commercial turf grass farm in the Sandy Valley, near Las Vegas, Nevada. The Inyo/Mono Agricultural Commissioner's office is tasked with the surveillance of 50% of the California/Nevada border for pests that could endanger the agricultural industry of California.



# Weights & Measures

## Device Inspection Program

We are responsible for inspection, certification, or condemnation of all commercially used meters (retail motor fuel, propane/vapor, and electric), scales (aggregate and cement hoppers, vehicle, livestock, computing, platform and spring scales); and any other type of device that is used to weigh or measure to determine a value for the purpose of sales. Enforcement actions can include issuance of citations initiating prosecution of violations. Of the 1,150+ devices inspected, 23 Notice of Violations were issued. All consumer complaints received by the Inyo/Mono Counties' Weights and Measures Department resulted in further inspections throughout the year. Regular inspections protect consumers from misrepresentation and maintain fair competition between sellers.

## Petroleum Program

We ensure the quality of petroleum products sold within the two Counties including; sampling of fuels, inspection and investigation of complaints. We also oversee all commercial advertisements of such products including price signs and labeling.

## Package Inspections

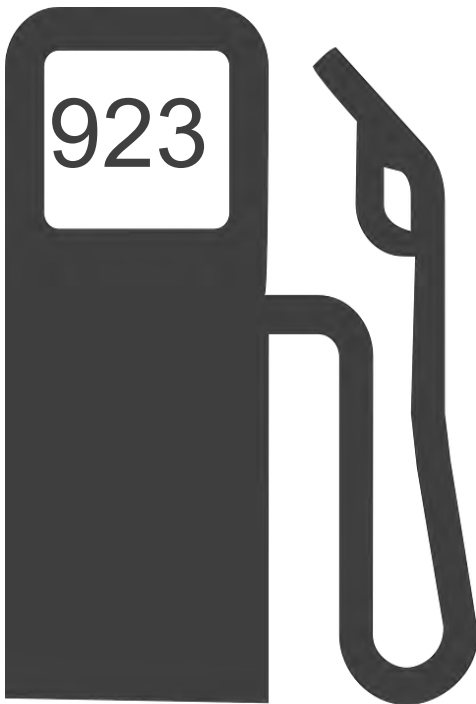
We inspect pre-packaged commodities in retail and wholesale facilities to determine proper weights, count or volume. We also verify proper sales equipment involving scanners, performing test purchases to insure accurate charges.

## Weighmaster Enforcement

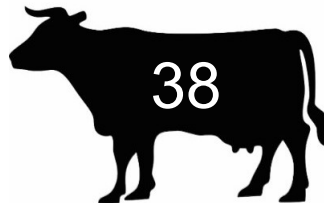
Weighmaster licenses are issued through our office to persons or entities that sell bulk commodities. Enforcement of weighmaster laws ensures that these transactions are accurate.

## Device Repairman Regulation

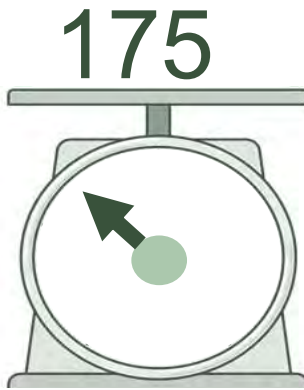
Anyone who installs or repairs a weighing or measuring device in Inyo or Mono Counties must register with our office and inform our office when work takes place. This ensures that devices are not tampered with and transaction equity.



Retail Fuel Meters



Livestock Scales



Counter and Computing Scales



Vehicle Scales



Aggregate Scales

11 Other Weighing and Measuring Devices

# Owens Valley Mosquito Abatement

## What is the mosquito control program?

The purpose of the program is to control mosquito populations throughout the Owens Valley from Olancha to Round Valley so that these pests and their associated diseases are abated adequately.



## Monitoring

The Owens Valley Mosquito Abatement Program (OVMAP) conducts surveillance to determine mosquito populations using several methods. Mosquito traps are deployed in several locations throughout the Owens Valley, and are checked frequently to determine level of adult mosquito populations. Disease monitoring is component of this trapping effort, and insects caught in traps are sent to sample for the presence of certain diseases that mosquitos are known to spread. Complaints are logged and responded to, creating records that can also help with monitoring efforts. At times, staff will travel to areas where complaints are high and record landing rates of mosquitos to further gauge population density.

## Biocontrol

**Mosquito Fish** - The mosquito fish have been one of the most effective non-insecticidal and non-chemical methods of controlling mosquitoes for over eighty years. They breed throughout the summer and new broods are produced at intervals of about six weeks, with 50 to 100 young in a single brood. They are ready to begin the work of destroying mosquito larvae at once. Mosquito fish can eat mosquito larvae as fast as the larvae hatch from eggs, as many as 100 per day. Mosquito fish live 2-3 years and can tolerate a wide range of temperatures.

**Larviciding** - Routine larviciding of many hundreds of mosquito sources each week prevent immature mosquito larvae from reaching the flying and biting adult stage. This preferred first option for killing mosquitos is the cheapest and most effective method.

## Adulticiding

When larviciding does not control mosquito populations adequately, OVMAP conducts adulticiding measures to protect our local communities from irritating insect bites and the potential for spreading of disease.

## Public Outreach and Cultural/Environmental Control

Outreach to residents about altering or removing conditions that best suit mosquito breeding is another effective tool in the OVMAP toolbox. These controls include proper irrigation practices, pool maintenance, and even making sure small containers or tires stored outside do not fill with stagnant water. Reducing the habitat conducive to mosquito breeding in the very areas where we live is a large step toward fewer itchy bites. Outreach efforts occur throughout the year through personal contact and social media, as well as at community events such as the Tri-County Fair.

## The Evolution of California Agricultural Commissioners and Sealers

The California Agricultural Commissioners trace their origins back 135 years. The goal of the Agricultural Commissioners is to protect the State's crops from the ravages of pests both domestic and imported. Then, as now, one of the principle weapons employed was a legal device called a "quarantine", which is derived from the French word "quarante", meaning "forty". The quarantine came about as a detention device, its first use being in the year 1340 when passengers on ships bound for Venice, Italy, were detained on board ship for 40 days. This was considered a long enough period to determine whether or not those passengers carried with them the Black Plague, which was killing many people in Europe in the mid-14th century.

California's first statewide program, which was the beginning of the present Department of Food and Agriculture, began with "An Act For the Promotion of Viticultural Industries of the State" on April 5, 1880. It provides for the appointment of a Board of State Viticultural Commissioners whose duties included the study of the grape root rot disease, *Phylloxera*. The Act specified that the University of California was responsible for instruction and experiments - a concept still existing today - giving the University the authority for research and the Department the regulatory functions. The Act provided for seven viticultural districts.

Until the year 1911, the duties of the State Board of Horticulture, the State Commissioner of Horticulture, county boards of horticulture commissioners and the county horticulture commissioners were limited to just a few obligations. These obligations consisted of preventing the introduction into the state of the pests from outside its boundaries, prevention of spread of insect pests and plant diseases through the media of nursery stock, fruit boxes, and other containers, and the inspection of nurseries. The years that followed would find the duties not only intensified in the same areas, but expanded into many other aspects of agriculture.

In the beginning the regulatory concern was to protect the California farmer from the depredations of exotic pests. After 1911, these duties were to be expanded to include concerns of the market place (standardization), and such cultural aids as assistance to the farmer in weed control and control of rodents and other damaging creatures. Later, they would enlarge to assure the farmer honest weights and measures, and protection from unscrupulous middlemen. Finally, the regulations would blossom into the full relationship of the farmer and the consumer.

Today, the California Department of Food and Agriculture and County Agricultural Commissioners are as busy helping the consumer as they are the farmer. They keep exotic pests away from the farmer's fields by fighting them in city gardens, where they nearly always are found first in the State. By so doing, they are affording city people as much protection as farmers, for these pests generally can wreak as much havoc in the city as in the country. They provide for, and oversee, standardization practices, thus insuring the farmers good markets for their products and insuring quality for consumers. They promote marketing of goods in a variety of ways, also assuring quality and quantity to consumers. They look after the health of livestock and plants, and the same benefits accrue to the consumer. They insist on measurement standards that also have dual blessings; and they assure the consumer and the farmer protection against the careless use of pesticides, thus affording protection to both people and the environment.



A meeting of Horticultural Commissioners, early 1900's





WEIGHTY ISSUES—The Southern California Assn. of Weights and Measures officials met in Bishop last week, with Ezio Delfino, state chief of measurement standards (left) presiding. Officials discussed new ruling that will require all service stations to post their prices by Jan. 1, 1981.

HORTICULTURE COMMISSIONER

NAME	Date Appt or Elected		Date Resigned or Term Ended
ROBINSON, Elijah	Jan 8, 1896	(A) D 264	
	Apr 9, 1897	(A) D 378	
SMITH, A.P.			Jan 6, 1909 Resigned <sup>F 159</sup>
	Feb 4, 1908	(A) <sup>F 159</sup>	
WELLS, H. H.	Jan 6, 1909	(A) F 159	
NEWMAN, L. M.	Jan 6, 1909	(A) F 159	
STEWART, J. J.	Jan 6, 1909	(A) F 159	
BAIRD, Richard	Apr 2, 1912	(A) F 412	May 12, 1913 Discharged <sup>F 513</sup>
BAIRD, Ricahrd	Sept 16, 1912	(A) F 463	June 11, 1913 Resigned <sup>F 524</sup>
NORDYKE, E. M.	Sept 22, 1914	(A) G 76	
NORDYKE, E° M.	Dec 14, 1915	(A) G 222	Jan 16, 1919 Resigned <sup>G 469</sup>
DIXON, J. W.	Mar 18, 1918	(A) G 477	
DIXON, J. W.	Dec 9, 1919	(A) H 432	

Listing of early Inyo County Horticultural Commissioners



**Counties of Inyo and Mono**  
**Department of Agriculture and Weights & Measures**  
**207 W South Street**  
**Bishop, CA 93514**



# 2016

## Inyo and Mono Counties Crop and Livestock Report



Counties of Inyo and Mono Agricultural Commissioner's Office  
207 W South Street, Bishop, CA 93514

# Counties of Inyo and Mono Agricultural Commissioner's Office 2016 Crop and Livestock Report

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## STAFF:

### **Agricultural Commissioner / Director of Weights and Measures**

Nathan Reade

### **Ag/Weights & Measures Inspector**

David Miller

### **Account Technician**

Jennifer Sarten

### **Field Technician – Weed Management**

Carlos Paz

### **Manager / Owens Valley Mosquito Abatement Program**

Chris Wickham

### **Mosquito Control Technicians**

Bruce Mack

Robert Miller





# Counties of Inyo & Mono

Nathan D. Reade  
Agricultural Commissioner / Director of Weights and Measures  
207 W. South Street, Bishop, CA 93514  
Telephone – (760) 873-7860 Fax – (760) 872-1610  
Email – inyomonoag@gmail.com Web - www.inyomonoagriculture.com



Karen Ross, *Secretary*  
*California Department of Food and Agriculture*

Brian Leahy, *Director*  
*California Department of Pesticide Regulation*

The Honorable Board of Supervisors,  
County of Inyo

Mark Tillemans, *Chair*

Matt Kingsley

Rick Pucci

Jeff Griffiths

Dan Totheroh

The Honorable Board of Supervisors,  
County of Mono

Stacy Corless, *Chair*

Bob Gardener

John Peters

Fred Stump

Larry Johnston

I am pleased to present the 2016 Inyo and Mono Counties' Annual Crop and Livestock Report. This report is prepared pursuant to California Food and Agriculture Code 2279, and is a statistical compilation of agriculture production in Inyo and Mono Counties. These values reflect **gross** agricultural production within the two counties, and do not represent net profit or loss.

The gross combined agricultural production values for Inyo and Mono Counties in 2016 totaled \$44,155,000, representing a decrease of 11.3% from 2015 production values. Drought continued to weigh on production, with cumulative losses representing a 44.4% reduction in total value for our region since the beginning of the multi-year drought period.

Cattle production remained relatively stable in 2016 as herd sizes were reduced to minimal levels due to poor forage conditions during the extended drought period. Beef pricing, however, declined for Inyo and Mono ranchers, driving production value down over 2015. Livestock value losses were tempered somewhat by a return of feeder cattle to local range.

Alfalfa and other hay production was impacted by low pricing, reducing this commodity group as well. Some irrigated pasture production loss occurred in Mono County as a result of LADWP decisions to not irrigate a vast portion of Long Valley due to drought, and acreage associated with these lands was moved into the rangeland commodity category for 2016.

Bright spots included both sheep production value increases, as well as more thorough reporting that resulted in increases in the fruit and nut category for both counties, and the inclusion of nursery production values for Mono County.

Sincerely,

Nathan D. Reade  
Agricultural Commissioner



## Counties of Inyo and Mono Agricultural Commissioner's Office

The mission of the Inyo and Mono Counties Agricultural Commissioner's Office is to promote and protect the agricultural industry of the counties, protect the environment, and to ensure the health and safety of all of its citizens. The department is also responsible for fostering confidence and equity in the marketplace.

The following are the main program areas:

### Human Safety and Environmental Protection

The County Agricultural Commissioner's Office protects the health and safety of all Inyo/Mono residents, its agricultural industries and its environment with a series of comprehensive regulatory programs designed to prevent the introduction of exotic pests and to ensure the safe use of pesticides. The five programs that exist to achieve these goals include:

- Pest Exclusion
- Pest Detection
- Pest Eradication
- Pest Management
- Pesticide Enforcement

### Consumer Protection and Product Quality

Product quality programs are designed to ensure the production and sales of quality eggs, honey, fruits, vegetables, and nursery and seed products. Quality standards that these programs ensure include maturity, grade, size, and weight. Packaging and labeling are also examined to ensure consumer expectations are met. The six programs include:

- Fruit and Vegetable Quality Control
- Organic Food Production
- Egg Quality Control
- Certified Farmers' Markets
- Nursery Inspection
- Seed Inspection

### Special Agricultural Services

The Agriculture Department also provides other mandated services, including:

- Apiary Inspection
- Crop Statistics
- Sustainable Agriculture



## Administrative and Education Outreach

Staff participate in a wide range of special projects intended to benefit Inyo/Mono citizens such as the legislative process, public information, education outreach efforts, as well as joint multi-agency and inter-county cooperative activities. Continuing education efforts sponsored by the Agriculture Department for pesticide safety help to ensure that local license-holders maintain adequate training.

## Eastern Sierra Weed Management Area

This division of the Agricultural Commissioner's office consists of 15 federal, state, county, and local agencies and entities. The Eastern Sierra Weed Management Area is dedicated to the eradication and control of invasive plant species in Inyo and Mono Counties through the cooperation and coordination of participating entities. The Eastern Sierra Weed Management Area participates in public outreach and education activities to ensure that people understand the threat of non-native weeds on our environment and agriculture industry.

## Weights and Measures

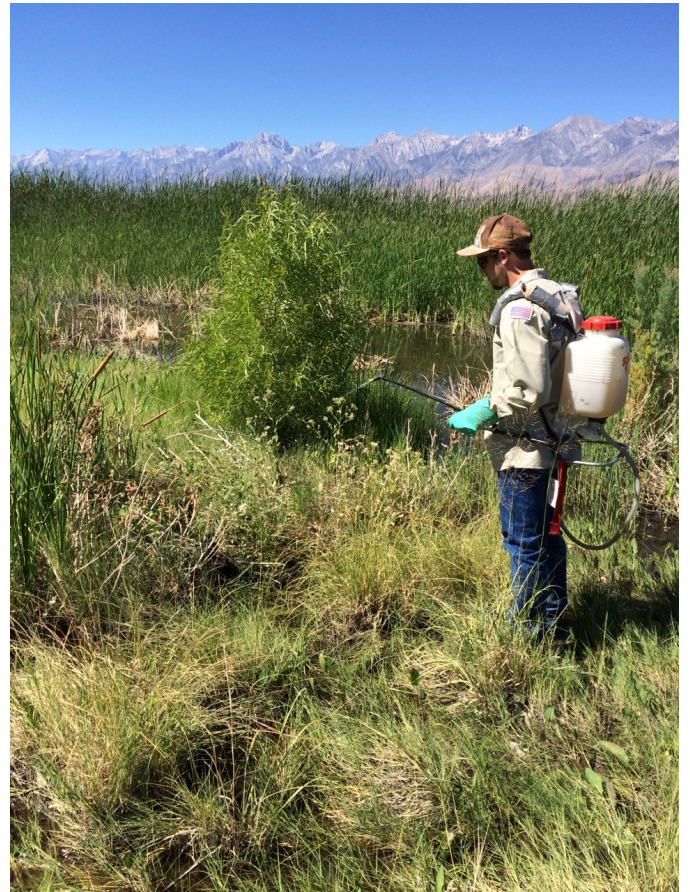
A gallon of gasoline, a cord of firewood, a loaf of bread, or a pound of fruits or vegetables...any item purchased is sold by weight, measure, or count. We protect the public from purchasing goods that are short weight or measure, and we protect businesses from giving their products and profits away when they use devices that could be inaccurate. We also verify that prices are scanned correctly at the counter, petroleum products meet quality standards, and weighmasters provide their customers accurate weighing devices. The eight programs in this category include:

- Weight Verification
- Measurement Verification
- Petroleum
- Transaction Verification
- Electronic Meters
- Compressed Gas Meters
- Weighmaster
- Device Repairmen Regulation

See page 15 for more information on this division.

## Owens Valley Mosquito Abatement Program

The purpose of this program is to provide the public with a consistent level of mosquito control that reduces the threat of disease transmission and the spread of large nuisance populations of mosquitoes. See page 16 for more information on this division.



# 2016

## Inyo County Crop and Livestock Statistics

### Inyo County General Information

County Seat:	Independence	<u>Average Climate</u>	
County Population:	18,546 (2010 census)	High	Low
Land Area:	10,142 sq. miles	Bishop:	98° 22°
Population Density:	1.83 persons per sq. mile	Death Valley:	115° 37°
Highest Elevation:	14,505 ft. (Mount Whitney)		
Lowest Elevation:	-282 ft. (Badwater, D.V.N.P.)		

#### Unincorporated Areas

Big Pine	Olancha
Cartago	Pearsonville
Independence	Shoshone
Lone Pine	

#### Land Ownership

Federal:	92.0%
City of Los Angeles:	3.9%
State of California:	2.4%
Private:	1.7%

#### Incorporated Cities

Bishop





## Livestock & Livestock Products

	Year	Unit	Production	Value per Unit	Total****	
Cattle & Calves	2016	Head	7,670	\$1,045	\$8,013,000	▼ 16%
	2015		7,680	\$1,243	\$9,550,000	
Sheep & Lambs**	2016	Head	3,815	\$164	\$625,700	▲ 26%
	2015		3,670*	\$154	\$496,000*	
Eggs	2016	Dozen	4,350	\$4.75	\$20,600	▲ 14%
	2015		4,020	\$4.50	\$18,100	
Wool	2016	Lbs	26,700	\$1.54	\$41,000	▲ 7%
	2015		23,900	\$1.59	\$38,000	
Miscellaneous***	2016				\$186,000	▲ 447%
	2015				\$34,000	
<b>Total Value</b>				<b>2016</b>	<b>\$8,886,000</b>	▼ 12%
				<b>2015</b>	<b>\$10,136,000*</b>	

\* Adjusted figure

\*\* Includes feeder lamb gain.

\*\*\* includes beef stocker gain, goats, hogs, and poultry.

\*\*\*\*Total may not calculate due to rounding

## Field Crops

	Year	Unit	Production	Value per Unit	Total**	
Alfalfa Hay	2016	Ton	15,100	\$180	\$2,718,000	▼ 12%
	2015		15,100	\$200	\$3,100,000	
Pasture, Irrigated	2016	Acre	14,000	\$70	\$980,000	= 0%
	2015		14,000	\$70	\$980,000	
Pasture, Rangeland	2016	Acre	1,150,000	\$1.12	\$1,288,000	= 0%
	2015		1,150,000	\$1.12	\$1,288,000	
Miscellaneous*	2016	-	280	-	\$758,000	▼ 8%
	2015		655	-	\$824,000	
<b>Total Value</b>				<b>2016</b>	<b>\$5,744,000</b>	▼ 7%
				<b>2015</b>	<b>\$6,192,000</b>	

\* Includes garlic, grain hay, sudangrass, and other hay

\*\*Total may not calculate due to rounding

## Nursery Products

	Year	Unit	Production	Value per Unit	Total	
Nursery Stock*	2016	Acre	121	-	\$1,032,000	▼ 36%
	2015		121	-	\$1,620,000	
<b>Total Value</b>				<b>2016</b>	<b>\$1,032,000</b>	▼ 36%
				<b>2015</b>	<b>\$1,620,000</b>	

\* Includes cacti and succulents, palms, and turf.

## Apiary Production

	Year	Unit	Production	Value per Unit	Total	
Honey	2016	Lb	155,600	\$2.09	\$325,200	▲ 5%
	2015		154,000	\$2.01	\$310,000	
Miscellaneous*	2016	-	-	-	\$5,600	▲ 4%
	2015		-	-	\$5,400	
<b>Total Value</b>				<b>2016</b>	<b>\$330,800</b>	▲ 5%
				<b>2015</b>	<b>\$315,000</b>	

\* Includes beeswax and pollen.

## Fruit & Nut Crops

	Year	Unit	Production	Value per Unit	Total	
Miscellaneous*	2016	Acres	35	-	\$333,200	▲ 64%
	2015		32	-	\$203,000	
<b>Total Value</b>				<b>2016</b>	<b>\$333,200</b>	▲ 64%
				<b>2015</b>	<b>\$203,000</b>	

\* Includes almonds, apples, apricots, blackberries, cherries, dates, figs, grapes (table), grapes (wine), nectarines, peaches, pears, pecans, persimmons, plums, pomegranates, raspberries, strawberries, and walnuts.

## Vegetable Crops

	Year	Unit	Production	Value per Unit	Total	
Miscellaneous*	2016	Acres	7	-	\$42,000	▼ 7%
	2015		9	-	\$45,000	
<b>Total Value</b>				<b>2016</b>	<b>\$42,000</b>	▼ 7%
				<b>2015</b>	<b>\$45,000</b>	

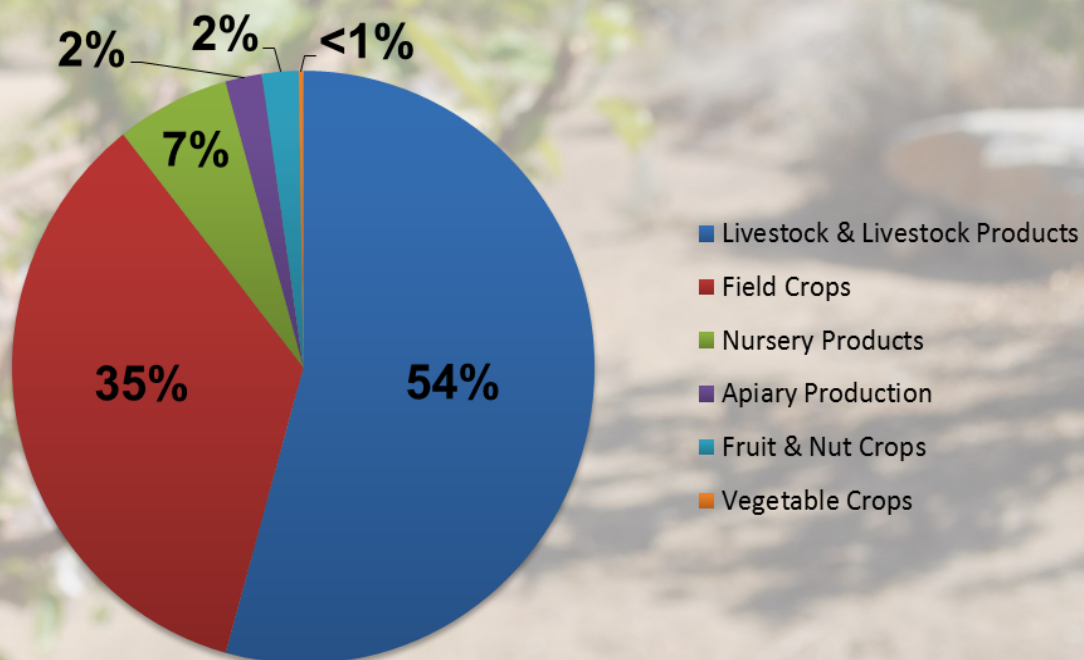
\* Includes Includes artichokes, beans, brassicas, carrots, cucumbers, eggplant, garlic, herbs, leafy greens, melons, onions, peppers, pumpkins, radishes, squash, sweet corn, tomatillos, tomatoes, and tubers.



## Inyo County Totals

	Year	Total	
Livestock & Livestock Products	2016	\$8,886,000	
	2015	\$10,136,000	▼ 12%
Field Crops	2016	\$5,744,000	
	2015	\$6,192,000	▼ 17%
Nursery Products	2016	\$1,032,000	
	2015	\$1,620,000	▼ 36%
Apiary Production	2016	\$330,800	
	2015	\$315,000	▲ 5%
Fruit & Nut Crops	2016	\$333,200	
	2015	\$203,000	▲ 64%
Vegetable Crops	2016	\$42,000	
	2015	\$45,000	▼ 7%
<b>Total Value</b>	<b>2016</b>	<b>\$16,368,000</b>	
	<b>2015</b>	<b>\$18,511,000</b>	<b>▼ 12%</b>

## Inyo County Agricultural Production



# 2016

## Mono County Crop and Livestock Statistics

### Mono County General Information

County Seat:	Bridgeport	<u>Average Climate</u>	
County Population:	14,202 (2010 census)	High	Low
Land Area:	3,044 sq. miles	Bridgeport:	81° 8°
Population Density:	4.67 persons per sq. mile	Hammil Valley:	98° 22°
Highest Elevation:	14,252 ft. (White Mountain)		

#### Unincorporated Areas

Benton	June Lake
Bridgeport	Lee Vining
Chalfant Valley	Topaz
Coleville	Tom's Place
Hammil Valley	Walker

#### Land Ownership

Federal:	84.7%
City of Los Angeles:	3.2%
State of California:	3.6%
Private:	6.5%

#### Incorporated Cities

Mammoth Lakes



## Livestock & Livestock Products

	Year	Unit	Production	Value per Unit	Total***	
Cattle & Calves	2016	Head	8,230	\$1,045	\$8,603,000	▼ 16%
	2015		8,200	\$1,243	\$10,193,000	
Sheep & Lambs*	2016	Head	14,870	\$164	\$2,439,000	▲ 14%
	2015		13,900	\$154	\$2,141,000	
Wool	2016	Lbs	119,300	\$1.54	\$183,700	▲ 7%
	2015		107,800	\$1.59	\$171,000	
Miscellaneous**	2016				\$2,570,000	▲ 80%
	2015				\$1,425,000	
<b>Total Value</b>				<b>2016</b>	<b>\$13,796,000</b>	▼ 1%
				<b>2015</b>	<b>\$13,930,000</b>	

\* Includes feeder lamb gain.

\*\* includes beef stocker gain, goats, hogs, and poultry.

\*\*\*Total may not calculate due to rounding

## Field Crops

	Year	Unit	Production	Value per Unit	Total**	
Alfalfa Hay	2016	Ton	47,200	\$180	\$8,496,000	▼ 16%
	2015		50,600	\$200	\$10,120,000	
Pasture, Irrigated	2016	Acre	26,000	\$70	\$1,820,000	▼ 40%
	2015		43,000	\$70	\$3,010,000	
Pasture, Rangeland	2016	Acre	1,072,000	\$1.39	\$1,490,000	▲ 5%
	2015		1,055,000	\$1.35	\$1,424,000	
Miscellaneous*	2016	-	1,473	-	\$2,063,000	▼ 23%
	2015		2,600	-	\$2,685,000	
<b>Total Value</b>				<b>2016</b>	<b>\$13,869,000</b>	▼ 20%
				<b>2015</b>	<b>\$17,239,000</b>	

\* Includes garlic, grain hay, sudangrass, and other hay

\*\*Total may not calculate due to rounding

## Fruit & Nut Crops

	Year	Unit	Production	Value per Unit	Total	
Miscellaneous*	2016	Acres	18	-	\$43,300	▲ 12%
	2015		18	-	\$38,800	
			<b>Total Value</b>	<b>2016</b>	<b>\$43,300</b>	▲ 12%
				<b>2015</b>	<b>\$38,800</b>	

\* Includes grapes (wine), pome fruit, and stone fruit.

## Forest Products

	Year	Total	
Timber and Firewood	2016	\$59,000	▲ 72%
	2015	\$34,400	
<b>Total Value</b>		<b>2016</b>	▲ 72%
		<b>2015</b>	

## Nursery Products

	Year	Unit	Production	Value per Unit	Total	
Nursery Stock*	2016	Acre	1	-	\$20,000	N/A
	2015		0	-	\$0	
			<b>Total Value</b>	<b>2016</b>	<b>\$20,000</b>	N/A
				<b>2015</b>	<b>\$0</b>	

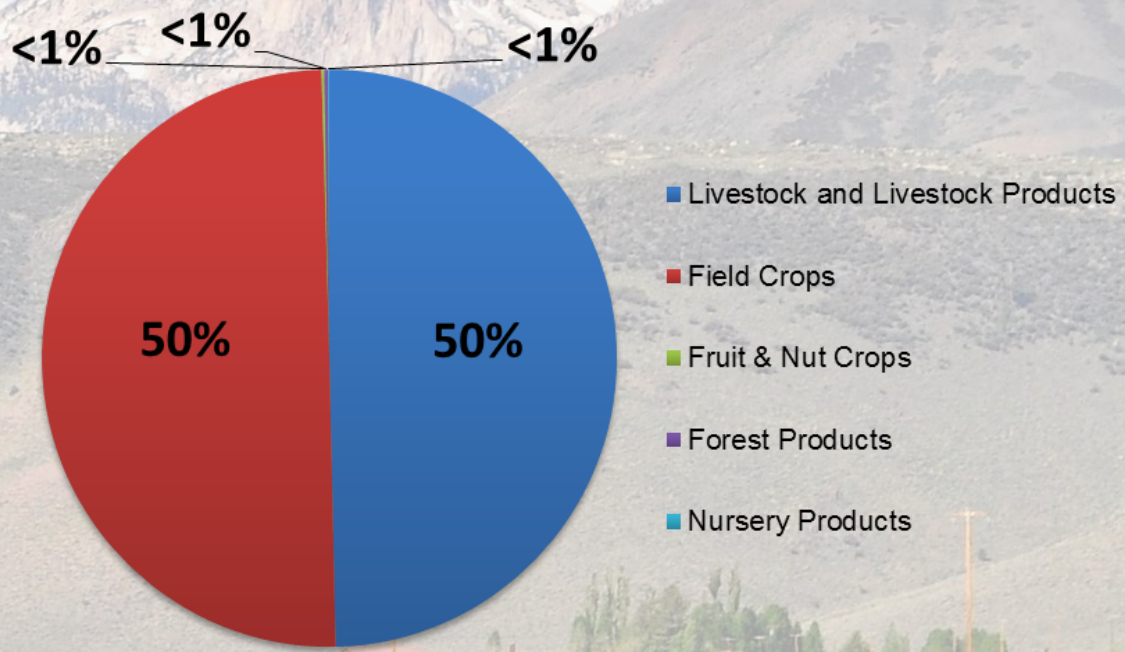
\* Includes various ornamental plants



## Mono County Totals

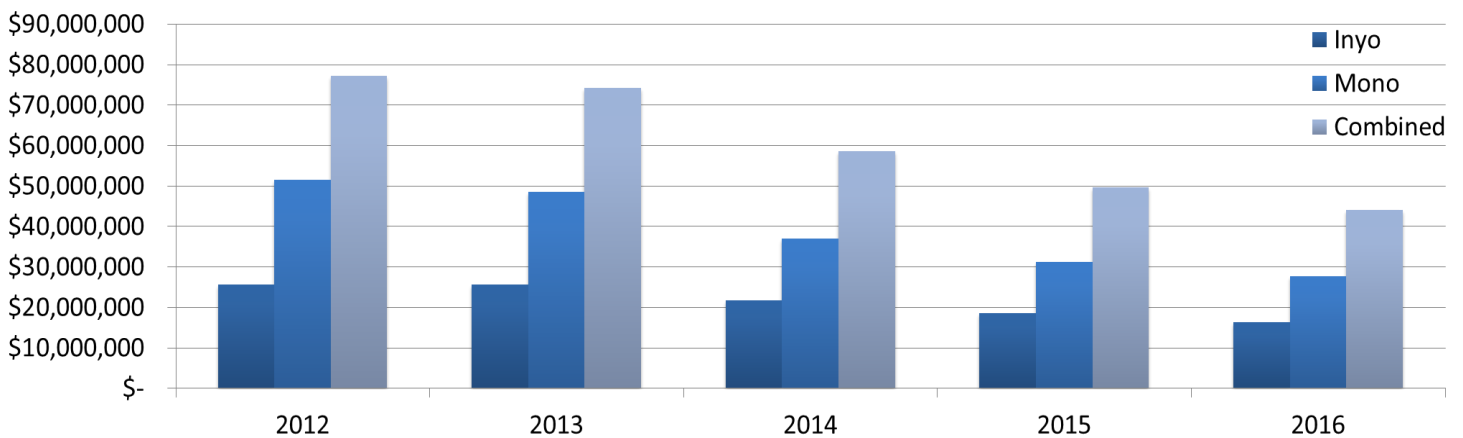
	Year	Total	
Livestock & Livestock Products	2016	\$13,796,000	▼ 1%
	2015	\$13,930,000	
Field Crops	2016	\$13,869,000	▼ 20%
	2015	\$17,239,000	
Fruit & Nut Crops	2016	\$43,300	▲ 12%
	2015	\$38,800	
Forest Products	2016	\$59,000	▲ 72%
	2015	\$34,400	
Nursery Products	2016	\$20,000	N/A
	2015	\$0	
<b>Total Value</b>	<b>2016</b>	<b>\$27,787,000</b>	<b>▼ 11%</b>
	<b>2015</b>	<b>\$31,242,000</b>	

## Mono County Agricultural Production

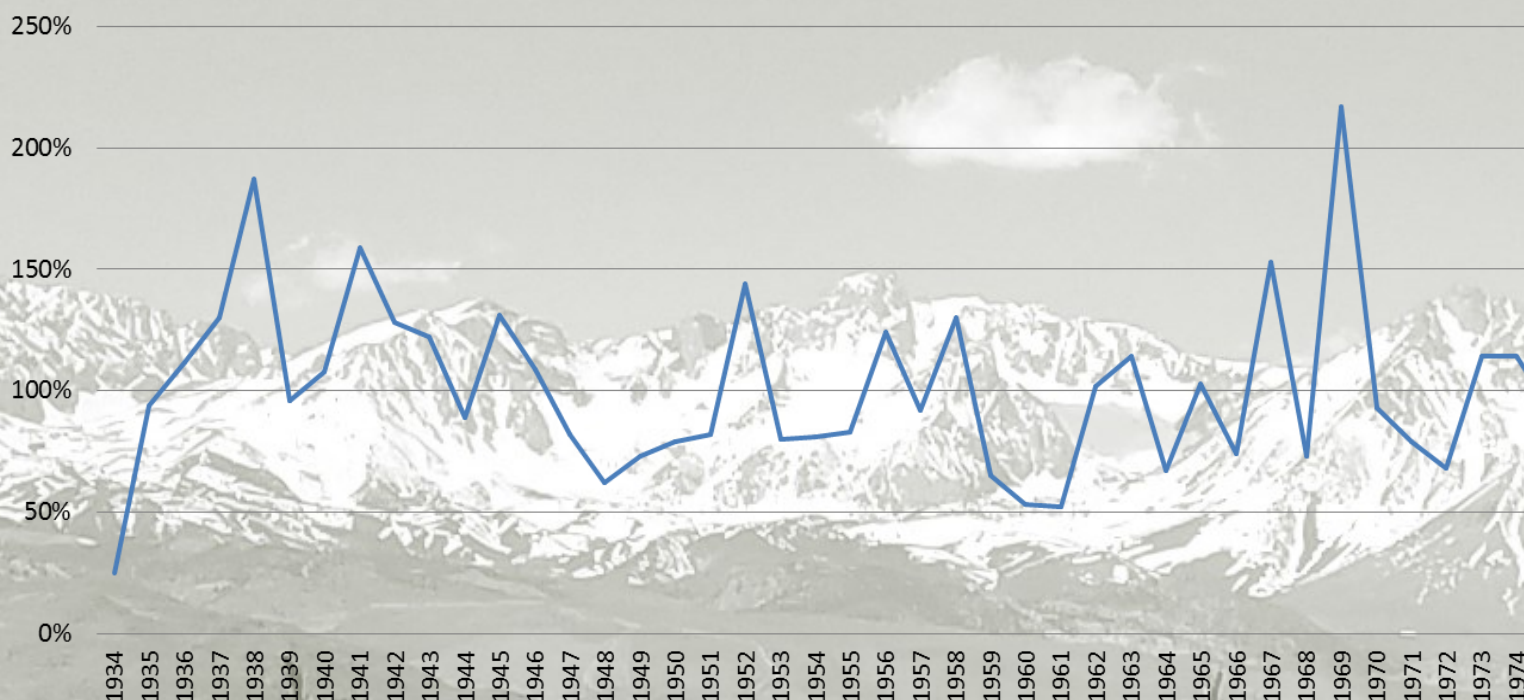


# Five Year Comparison

	2012	2013	2014	2015	2016
<b>Inyo County Totals</b>	<b>\$25,693,000</b>	<b>\$25,648,000</b>	<b>\$21,659,000</b>	<b>\$18,511,000</b>	<b>\$16,368,000</b>
<b>Mono County Totals</b>	<b>\$51,588,000</b>	<b>\$48,503,000</b>	<b>\$36,947,000</b>	<b>\$31,242,000</b>	<b>\$27,787,000</b>
<b>Combined Totals</b>	<b>\$77,281,000</b>	<b>\$74,151,000</b>	<b>\$58,606,000</b>	<b>\$49,753,000</b>	<b>\$44,155,000</b>



# Eastern Sierra Runoff Chart





# Direct Marketing

## Certified Farmer's Market

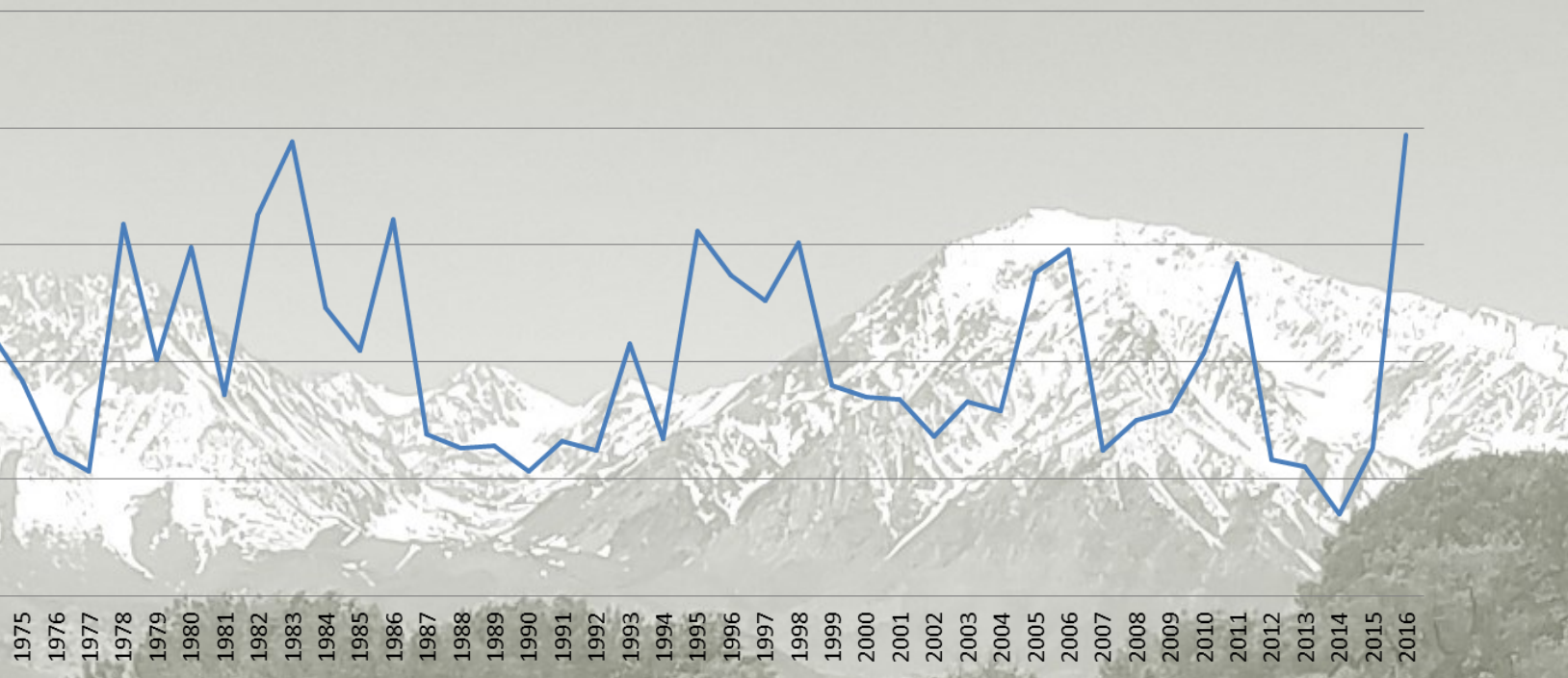
26 growers registered as Certified Producers in 2016.

### Certified Farmer's Market locations included:

- Mammoth Lakes
- Bishop
- Independence

### Commodities Grown by Certified Producers

Basil, chervil, chives, cilantro, dill, marjoram, parsley, rosemary, sage, tarragon, thyme, lavender, oregano, lemongrass, mint, mustard, paprika, spinach, sunflower, corn, eggplant, tomato, squash, cucumber, peppers, green onions, potatoes, pumpkins, okra, onions, beets, garlic, asparagus, artichoke, celery, carrots, radishes, rutabaga, leek, lettuce, broccoli, cauliflower, kale, arugula, sweet potatoes, Swiss chard, bok choy, cabbage, collard, Brussels sprouts, zucchini, shallots, tomatillos, turnip, grapes, apples, peaches, pears, nectarines, apricots, cherries, plums, persimmons, pomegranate, pluot, rhubarb, figs, watermelon, cantaloupe, honeydew, raspberries, blackberries, boysenberries, strawberries, peas, sweet peas, various bean varieties, almonds, walnuts, cut flowers, honey, and eggs.



# Sustainable Agriculture and Outreach

Invasive Plant Targets			
Pest	Agent/Mechanism	Number of Sites	Gross Acres
Puncturevine	Biological Control	14 sites	~
Dalmatian Toadflax	Mechanical	2 sites	220
Yellow Starthistle	Mechanical/Herbicide	2 sites	10
Russian Knapweed	Herbicide	3 sites	100
Canada Thistle	Herbicide	8 sites	400
Spotted Knapweed	Herbicide	3 sites	4
Halogeton	Mechanical	5 sites	4,400
Scotch Thistle	Herbicide	8 sites	1,311
Camelthorn	Herbicide	1 site	40
Saltcedar	Herbicide	1 site	80
Perennial Pepperweed	Herbicide	53 sites	12,000

## Outreach Program

During 2016, the Inyo/Mono Counties' Agriculture Department conducted:

- 2 pesticide safety seminars with over 100 professional card holders and private applicators attending, to meet California state continuing education requirements;
- 2 educational workshops for local groups;
- Participation with the Owens Lake Committee and Integrated Regional Water Management Planning Group to resolve major water issues in the Owens Valley.

The Department's inspection surveillance area, which encompasses over 10,000 square miles, provided outreach from northern Mono County, including several California and Nevada field crop growers located in the Antelope Valley area, to the southern tip of Inyo County, including a large commercial turf grass farm in the Sandy Valley, near Las Vegas, Nevada. The Inyo/Mono Agricultural Commissioner's office is tasked with the surveillance of 50% of the California/Nevada border for pests that could endanger the agricultural industry of California.



# Weights & Measures

## Device Inspection Program

We are responsible for inspection, certification, or condemnation of all commercially used meters (retail motor fuel, propane/vapor, and electric), scales (aggregate and cement hoppers, vehicle, live-stock, computing, platform and spring scales); and any other type of device that is used to weigh or measure to determine a value for the purpose of sales. Enforcement actions can include issuance of citations initiating prosecution of violations. Of the 1,200+ devices inspected, 20 Notice of Violations were issued. All consumer complaints received by the Inyo/Mono Counties' Weights and Measures Department resulted in further inspections throughout the year. Regular inspections protect consumers from misrepresentation and maintain fair competition between sellers.

## Petroleum Program

We ensure the quality of petroleum products sold within the two Counties including; sampling of fuels, inspection and investigation of complaints. We also oversee all commercial advertisements of such products including price signs and labeling.

## Package Inspections

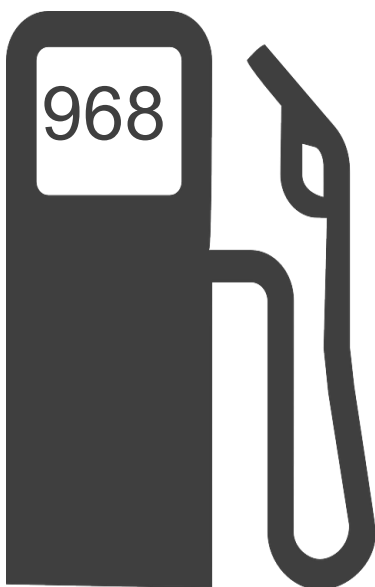
We inspect pre-packaged commodities in retail and wholesale facilities to determine proper weights, count or volume. We also verify proper sales equipment involving scanners, performing test purchases to insure accurate charges.

## Weighmaster Enforcement

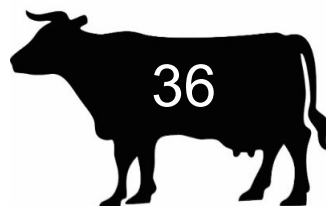
Weighmaster licenses are issued through our office to persons or entities that sell bulk commodities. Enforcement of weighmaster laws ensures that these transactions are accurate.

## Device Repairman Regulation

Anyone who installs or repairs a weighing or measuring device in Inyo or Mono Counties must register with our office and inform our office when work takes place. This ensures that devices are not tampered with and transaction equity.



Retail Fuel Meters



Livestock Scales



Counter and Computing Scales



Vehicle Scales



Aggregate Scales

32 Other Weighing and Measuring Devices

# Owens Valley Mosquito Abatement

## What is the mosquito control program?

The purpose of the program is to control mosquito populations throughout the Owens Valley from Olancho to Round Valley so that these pests and their associated diseases are abated adequately.

## Monitoring

The Owens Valley Mosquito Abatement Program (OVMAP) conducts surveillance to determine mosquito populations using several methods. Mosquito traps are deployed in several locations throughout the Owens Valley, and are checked frequently to determine level of adult mosquito populations. Disease monitoring is component of this trapping effort, and insects caught in traps are sent to sample for the presence of certain diseases that mosquitos are known to spread. Complaints are logged and responded to, creating records that can also help with monitoring efforts. At times, staff will travel to areas where complaints are high and record landing rates of mosquitos to further gauge population density.

## Biocontrol

**Mosquito Fish** - The mosquito fish have been one of the most effective non-insecticidal and non-chemical methods of controlling mosquitoes for over eighty years. They breed throughout the summer and new broods are produced at intervals of about six weeks, with 50 to 100 young in a single brood. They are ready to begin the work of destroying mosquito larvae at once. Mosquito fish can eat mosquito larvae as fast as the larvae hatch from eggs, as many as 100 per day. Mosquito fish live 2-3 years and can tolerate a wide range of temperatures.

**Larvaciding** - Routine larviciding of many hundreds of mosquito sources each week prevent immature mosquito larvae from reaching the flying and biting adult stage. This preferred first option for killing mosquitos is the cheapest and most effective method.

## Adulticiding

When larvaciding does not control mosquito populations adequately, OVMAP conducts adulticiding measures to protect our local communities from irritating insect bites and the potential for spreading of disease.

## Public Outreach and Cultural/Environmental Control

Outreach to residents about altering or removing conditions that best suit mosquito breeding is another effective tool in the OVMAP toolbox. These controls include proper irrigation practices, pool maintenance, and even making sure small containers or tires stored outside do not fill with stagnant water. Reducing the habitat conducive to mosquito breeding in the very areas where we live is a large step toward fewer itchy bites. Outreach efforts occur throughout the year through personal contact and social media, as well as at community events such as the Tri-County Fair.





### The Evolution of California Agricultural Commissioners and Sealers

The California Agricultural Commissioners trace their origins back 136 years. The goal of the Agricultural Commissioners is to protect the State's crops from the ravages of pests both domestic and imported. Then, as now, one of the principle weapons employed was a legal device called a "quarantine", which is derived from the French word "quarante", meaning "forty". The quarantine came about as a detention device, its first use being in the year 1340 when passengers on ships bound for Venice, Italy, were detained on board ship for 40 days. This was considered a long enough period to determine whether or not those passengers carried with them the Black Plague, which was killing many people in Europe in the mid-14th century.

California's first statewide program, which was the beginning of the present Department of Food and Agriculture, began with "An Act For the Promotion of Viticultural Industries of the State" on April 5, 1880. It provides for the appointment of a Board of State Viticultural Commissioners whose duties included the study of the grape root rot disease, *Phylloxera*. The Act specified that the University of California was responsible for instruction and experiments - a concept still existing today - giving the University the authority for research and the Department the regulatory functions. The Act provided for seven viticultural districts.

Until the year 1911, the duties of the State Board of Horticulture, the State Commissioner of Horticulture, county boards of horticulture commissioners and the county horticulture commissioners were limited to just a few obligations. These obligations consisted of preventing the introduction into the state of the pests from outside its boundaries, prevention of spread of insect pests and plant diseases through the media of nursery stock, fruit boxes, and other containers, and the inspection of nurseries. The years that followed would find the duties not only intensified in the same areas, but expanded into many other aspects of agriculture.

In the beginning the regulatory concern was to protect the California farmer from the depredations of exotic pests. After 1911, these duties were to be expanded to include concerns of the market place (standardization), and such cultural aids as assistance to the farmer in weed control and control of rodents and other damaging creatures. Later, they would enlarge to assure the farmer honest weights and measures, and protection from unscrupulous middlemen. Finally, the regulations would blossom into the full relationship of the farmer and the consumer.

Today, the California Department of Food and Agriculture and County Agricultural Commissioners are as busy helping the consumer as they are the farmer. They keep exotic pests away from the farmer's fields by fighting them in city gardens, where they nearly always are found first in the State. By so doing, they are affording city people as much protection as farmers, for these pests generally can wreak as much havoc in the city as in the country. They provide for, and oversee, standardization practices, thus insuring the farmers good markets for their products and insuring quality for consumers. They promote marketing of goods in a variety of ways, also assuring quality and quantity to consumers. They look after the health of livestock and plants, and the same benefits accrue to the consumer. They insist on measurement standards that also have dual blessings; and they assure the consumer and the farmer protection against the careless use of pesticides, thus affording protection to both people and the environment.



COUNTIES OF INYO AND MONO  
Department of Agriculture and Weights & Measures  
207 W South Street  
Bishop, CA 93514



# 2017

## CROP AND LIVESTOCK REPORT

COUNTIES OF INYO AND MONO  
AGRICULTURAL COMMISSIONER'S OFFICE



# Counties of Inyo and Mono Agricultural Commissioner's Office 2017 Crop and Livestock Report

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# COUNTIES OF INYO AND MONO



AGRICULTURE • WEIGHTS & MEASURES • OWENS VALLEY MOSQUITO ABATEMENT PROGRAM • EASTERN SIERRA WEED MANAGEMENT AREA  
MAMMOTH LAKES MOSQUITO ABATEMENT DISTRICT • INYO COUNTY COMMERCIAL CANNABIS PERMIT OFFICE

Karen Ross, *Secretary*  
California Department of Food and Agriculture

Brian Leahy, *Director*  
California Department of Pesticide Regulation

The Honorable Board of Supervisors,  
County of Inyo

The Honorable Board of Supervisors,  
County of Mono

Dan Totheroh, *Chair*

Bob Gardner, *Chair*

Matt Kingsley

Rick Pucci

Stacy Corless

Fred Stump

Jeff Griffiths

Mark Tillemans

John Peters

Larry Johnston

I am pleased to present the 2017 Inyo and Mono Counties' Annual Crop and Livestock Report. This report is prepared pursuant to California Food and Agriculture Code 2279, and is a statistical compilation of agriculture production in Inyo and Mono Counties. These values reflect **gross** agricultural production within the two counties, and do not represent net profit or loss.

The gross combined agricultural production values for Inyo and Mono Counties in 2017 totaled \$50,227,000, representing an increase of 14% from 2016 production values. This is the first increase since 2011. Drought conditions that began in 2012 and extended into 2016 removed nearly 56% of all gross agriculture value from the two counties combined. Although the improved conditions in 2017 bring us back to 2015 production value levels, the agriculture industry in our two counties has a long road ahead to recover to pre-drought status.

The two primary commodity groups in Inyo and Mono (livestock & livestock products and field crops) both had strong numbers in 2017 due to production increases resulting from good irrigation conditions following an abundant snow-pack year. Beef, lamb, and alfalfa pricing were all up according to data, which coupled with production increases, substantially bolstered our agriculture value.

A few commodity groups suffered including apiary, vegetable crops, and rangeland. We continue to see declines in apiary production as out of state companies utilize local bee sites prior to pollination in the Central Valley, which leaves less opportunity for use by our local beekeepers. Vegetable crops, while never a major contributor to overall value, did experience a drop in value as fewer certified producers reported production 2017. Rangeland value was reduced slightly due to rent changes.

I would like to thank my staff for assisting with the creation of this report. I'd also like to thank our local agricultural industry for their input, without which this report would not be possible.

Sincerely,

Nathan D. Reade  
Agricultural Commissioner

## Counties of Inyo and Mono Agricultural Commissioner's Office

The mission of the Inyo and Mono Counties Agricultural Commissioner's Office is to promote and protect the agricultural industry of the counties, protect the environment, and to ensure the health and safety of all of its citizens. The department is also responsible for fostering confidence and equity in the marketplace.

The following are the main program areas:

### Human Safety and Environmental Protection

The County Agricultural Commissioner's Office protects the health and safety of all Inyo/Mono residents, its agricultural industries and its environment with a series of comprehensive regulatory programs designed to prevent the introduction of exotic pests and to ensure the safe use of pesticides. The five programs that exist to achieve these goals include:

- Pest Exclusion
- Pest Detection
- Pest Eradication
- Pest Management
- Pesticide Enforcement

### Consumer Protection and Product Quality

Product quality programs are designed to ensure the production and sales of quality eggs, honey, fruits, vegetables, and nursery and seed products. Quality standards that these programs ensure include maturity, grade, size, and weight. Packaging and labeling are also examined to ensure consumer expectations are met. The six programs include:

- Fruit and Vegetable Quality Control
- Organic Food Production
- Egg Quality Control
- Certified Farmers' Markets
- Nursery Inspection
- Seed Inspection

### Special Agricultural Services

The Agriculture Department also provides other mandated services, including:

- Apiary Inspection
- Crop Statistics
- Sustainable Agriculture



## Administrative and Education Outreach

Staff participate in a wide range of special projects intended to benefit Inyo/Mono citizens such as the legislative process, public information, education outreach efforts, as well as joint multi-agency and inter-county cooperative activities. Continuing education efforts sponsored by the Agriculture Department for pesticide safety help to ensure that local license-holders maintain adequate training.



## Invasive Plant Management

This division of the Agricultural Commissioner's office consists of 15 federal, state, county, and local agencies and entities. The Eastern Sierra Weed Management Area is dedicated to the eradication and control of invasive plant species in Inyo and Mono Counties through the cooperation and coordination of participating entities. The Eastern Sierra Weed Management Area participates in public outreach and education activities to ensure that people understand the threat of non-native weeds on our environment and agriculture industry.

## Weights and Measures

A gallon of gasoline, a cord of firewood, a loaf of bread, or a pound of fruits or vegetables...any item purchased is sold by weight, measure, or count. We protect the public from purchasing goods that are short weight or measure, and we protect businesses from giving their products and profits away when they use devices that could be inaccurate. We also verify that prices are scanned correctly at the counter, petroleum products meet quality standards, and weighmasters provide their customers accurate weighing devices. The eight programs in this category include:

- Weight Verification
- Measurement Verification
- Petroleum
- Transaction Verification
- Electronic Meters
- Compressed Gas Meters
- Weighmaster
- Device Repairmen Regulation

See page 15 for more information on this division.

## Mosquito Abatement

The purpose of this program is to provide the public with a consistent level of mosquito control that reduces the threat of disease transmission and the spread of large nuisance populations of mosquitoes. The Inyo/Mono Counties Agricultural Commissioner's Office administers the Owens Valley Mosquito Abatement Program and the Mammoth Lakes Mosquito Abatement District. See page 16 for more information on this division.



# 2017

## Inyo County

### Crop and Livestock Statistics

#### Inyo County General Information

County Seat:	Independence	<u>Average Climate</u>		
County Population:	18,546 (2010 census)		High	Low
Land Area:	10,142 sq. miles	Bishop:	98°	22°
Population Density:	1.83 persons per sq. mile	Death Valley:	115°	37°
Highest Elevation:	14,505 ft. (Mount Whitney)			
Lowest Elevation:	-282 ft. (Badwater, D.V.N.P.)			

#### Unincorporated Areas

Big Pine	Olancha
Cartago	Pearsonville
Independence	Shoshone
Lone Pine	

#### Land Ownership

Federal:	92.0%
City of Los Angeles:	3.9%
State of California:	2.4%
Private:	1.7%

#### Incorporated Cities

Bishop



## LIVESTOCK & LIVESTOCK PRODUCTS

	Year	Unit	Production	Value per Unit	Total***	
Cattle & Calves	2017	Head	8,230	\$1,130	\$9,300,000	▲ 16%
	2016		7,670	\$1,045	\$8,013,000	
Sheep & Lambs*	2017	Head	4,415	\$187	\$825,400	▲ 32%
	2016		3,815	\$164	\$625,700	
Eggs	2017	Dozen	3,765	\$4.75	\$17,900	▼ 13%
	2016		4,350	\$4.75	\$20,600	
Wool	2017	Lbs	22,700	\$2.17	\$49,200	▲ 20%
	2016		26,700	\$1.54	\$41,000	
Miscellaneous**	2017				\$145,000	▼ 22%
	2016				\$186,000	
<b>Total Value</b>				<b>2017</b>	<b>\$10,338,000</b>	▲ 16%
				<b>2016</b>	<b>\$8,886,000</b>	

\* Includes feeder lamb gain.

\*\*Includes beef stocker gain, goats, hogs, and poultry.

\*\*\*Total may not calculate due to rounding

## FIELD CROPS

	Year	Unit	Production	Value per Unit	Total**	
Alfalfa Hay	2017	Ton	15,184	\$190	\$2,885,000	▲ 6%
	2016		15,100	\$180	\$2,718,000	
Pasture, Irrigated	2017	Acre	14,000	\$70	\$980,000	= 0%
	2016		14,000	\$70	\$980,000	
Pasture, Rangeland	2017	Acre	1,150,000	\$1.10	\$1,265,000	▼ 2%
	2016		1,150,000	\$1.12	\$1,288,000	
Miscellaneous*	2017	-	625	-	\$1,696,000	▲ 124%
	2016		280	-	\$758,000	
<b>Total Value</b>				<b>2017</b>	<b>\$6,826,000</b>	▲ 19%
				<b>2016</b>	<b>\$5,744,000</b>	

\*Includes garlic, grain hay, sudangrass, and other hay

\*\*Total may not calculate due to rounding

## NURSERY PRODUCTS

	Year	Unit	Production	Value per Unit	Total	
Nursery Stock*	2017	Acre	139	-	\$1,185,000	▲ 15%
	2016		121	-	\$1,032,000	
			<b>Total Value</b>	<b>2017</b>	<b>\$1,185,000</b>	▲ 15%
				<b>2016</b>	<b>\$1,032,000</b>	

\*Includes palms, turf, and miscellaneous plants.

## FRUIT & NUT CROPS

	Year	Unit	Production	Value per Unit	Total	
Miscellaneous*	2017	Acres	35	-	\$358,200	▲ 8%
	2016		35	-	\$333,200	
			<b>Total Value</b>	<b>2017</b>	<b>\$358,200</b>	▲ 8%
				<b>2016</b>	<b>\$333,200</b>	

\* Includes almonds, apples, apricots, blackberries, cherries, dates, figs, grapes (table), grapes (wine), nectarines, peaches, pears, pecans, persimmons, plums, pomegranates, raspberries, strawberries, and walnuts.

## APIARY PRODUCTION

	Year	Unit	Production	Value per Unit	Total	
Honey	2017	Lb	88,400	\$2.49	\$219,800	▼ 32%
	2016		155,600	\$2.09	\$325,200	
Miscellaneous*	2017	-	-	-	\$5,400	▼ 4%
	2016		-	-	\$5,600	
			<b>Total Value</b>	<b>2017</b>	<b>\$225,200</b>	▼ 32%
				<b>2016</b>	<b>\$330,800</b>	

\* Includes beeswax and pollen.

## VEGETABLE CROPS

	Year	Unit	Production	Value per Unit	Total	
Miscellaneous*	2017	Acres	3	-	\$25,200	▼ 40%
	2016		7	-	\$42,000	
			<b>Total Value</b>	<b>2017</b>	<b>\$25,200</b>	▼ 40%
				<b>2016</b>	<b>\$42,000</b>	

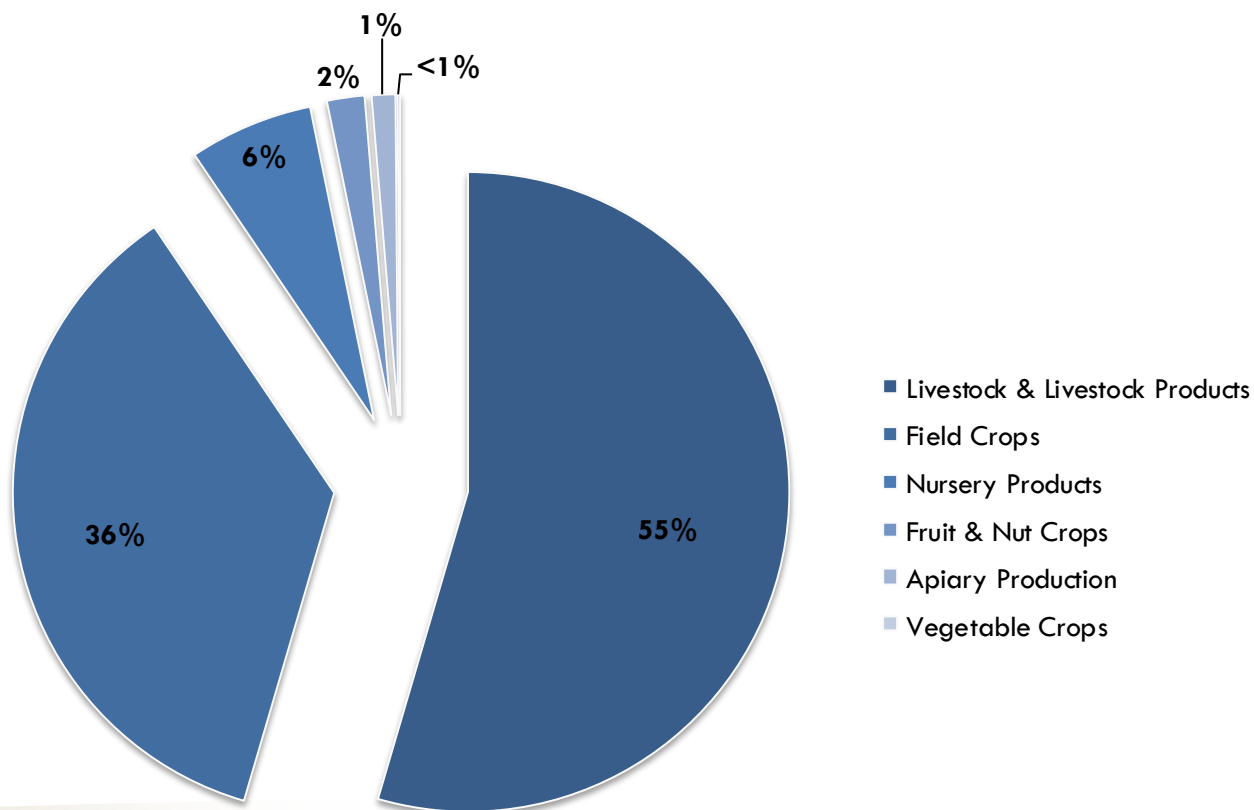
\* Includes Includes artichokes, beans, brassicas, carrots, cucumbers, eggplant, garlic, herbs, leafy greens, melons, onions, peppers, pumpkins, radishes, squash, sweet corn, tomatillos, tomatoes, and tubers.



## INYO COUNTY TOTALS

	Year	Total	
Livestock & Livestock Products	2017	\$10,338,000	▲ 16%
	2016	\$8,886,000	
Field Crops	2017	\$6,826,000	▲ 19%
	2016	\$5,744,000	
Nursery Products	2017	\$1,185,000	▲ 15%
	2016	\$1,032,000	
Fruit & Nut Crops	2017	\$358,200	▲ 8%
	2016	\$333,200	
Apiary Production	2017	\$225,200	▼ 32%
	2016	\$330,800	
Vegetable Crops	2017	\$25,200	▼ 40%
	2016	\$42,000	
<b>Total Value</b>	<b>2017</b>	<b>\$18,958,000</b>	<b>▲ 16%</b>
	<b>2016</b>	<b>\$16,368,000</b>	

## INYO COUNTY AGRICULTURAL PRODUCTION BY CATEGORY



# 2017

## Mono County

### Crop and Livestock Statistics

#### Mono County General Information

County Seat:	Bridgeport
County Population:	14,202 (2010 census)
Land Area:	3,044 sq. miles
Population Density:	4.67 persons per sq. mile
Highest Elevation:	14,252 ft. (White Mountain)

#### Unincorporated Areas

Benton	June Lake
Bridgeport	Lee Vining
Chalfant Valley	Topaz
Coleville	Tom's Place
Hammil Valley	Walker

#### Incorporated Cities

Mammoth Lakes

#### Average Climate

	High	Low
Bridgeport:	81°	8°
Hammil Valley:	98°	22°

#### Land Ownership

Federal:	84.7%
City of Los Angeles:	3.2%
State of California:	3.6%
Private:	6.5%





## Livestock & Livestock Products

	Year	Unit	Production	Value per Unit	Total***	
Cattle & Calves	2017	Head	8,830	\$1,130	\$9,978,000	▲ 16%
	2016		8,230	\$1,045	\$8,603,000	
Sheep & Lambs*	2017	Head	16,705	\$187	\$3,124,000	▲ 28%
	2016		14,870	\$164	\$2,439,000	
Wool	2017	Lbs	98,306	\$2.17	\$213,300	▲ 16%
	2016		119,300	\$1.54	\$183,700	
Miscellaneous**	2017				\$2,440,000	▼ 5%
	2016				\$2,570,000	
<b>Total Value</b>				<b>2017</b>	<b>\$15,755,000</b>	▲ 14%
				<b>2016</b>	<b>\$13,796,000</b>	

\*Includes feeder lamb gain.

\*\*Includes beef stocker gain, goats, hogs, and poultry.

\*\*\*Total may not calculate due to rounding

## Field Crops

	Year	Unit	Production	Value per Unit	Total**	
Alfalfa Hay	2017	Ton	56,100	\$170	\$9,537,000	▲ 12%
	2016		47,200	\$180	\$8,496,000	
Pasture, Irrigated	2017	Acre	26,000	\$70	\$1,820,000	= 0%
	2016		26,000	\$70	\$1,820,000	
Pasture, Rangeland	2017	Acre	1,072,000	\$1.36	\$1,458,000	▼ 2%
	2016		1,072,000	\$1.39	\$1,490,000	
Miscellaneous*	2017	-	868	-	\$2,565,000	▲ 24%
	2016		1,473	-	\$2,063,000	
<b>Total Value</b>				<b>2017</b>	<b>\$15,380,000</b>	▲ 11%
				<b>2016</b>	<b>\$13,869,000</b>	

\*Includes garlic, grain hay, sudangrass, and other hay

\*\*Total may not calculate due to rounding

## Forest Products

	Year	Total	
Timber and Firewood	2017	\$70,100	▲ 19%
	2016	\$59,000	
<b>Total Value</b>	<b>2017</b>	<b>\$70,100</b>	▲ 19%
	<b>2016</b>	<b>\$59,000</b>	

## Fruit & Nut Crops

	Year	Unit	Production	Value per Unit	Total	
Miscellaneous*	2017	Acres	18	-	\$44,200	▲ 2%
	2016		18	-	\$43,300	
<b>Total Value</b>	<b>2017</b>				<b>\$44,200</b>	▲ 2%
	<b>2016</b>				<b>\$43,300</b>	

\* Includes grapes (wine), pome fruit, and stone fruit.

## Nursery Products

	Year	Unit	Production	Value per Unit	Total	
Nursery Stock*	2017	Acre	1	-	\$20,000	= 0%
	2016		1	-	\$20,000	
<b>Total Value</b>	<b>2017</b>				<b>\$20,000</b>	= 0%
	<b>2016</b>				<b>\$20,000</b>	

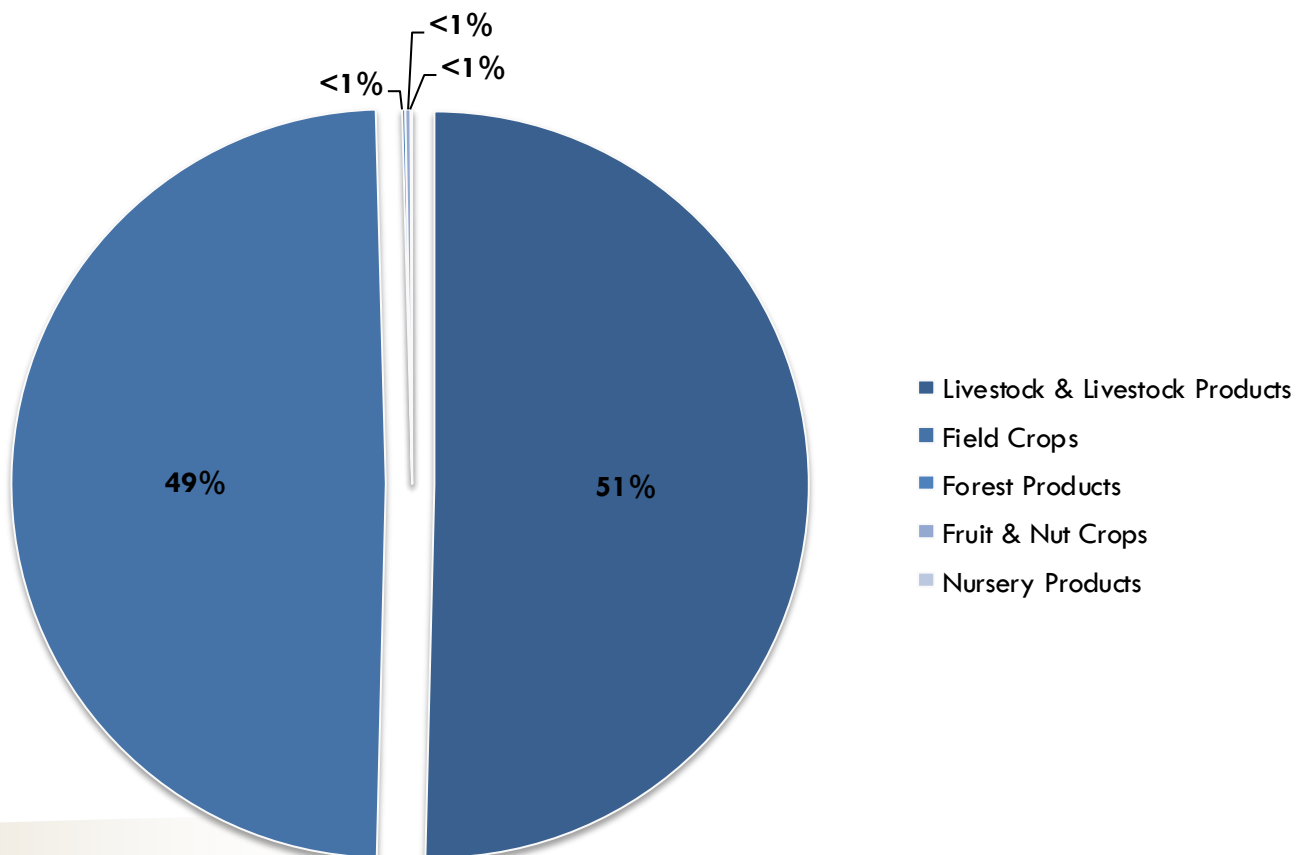
\* Includes various ornamental plants



## Mono County Totals

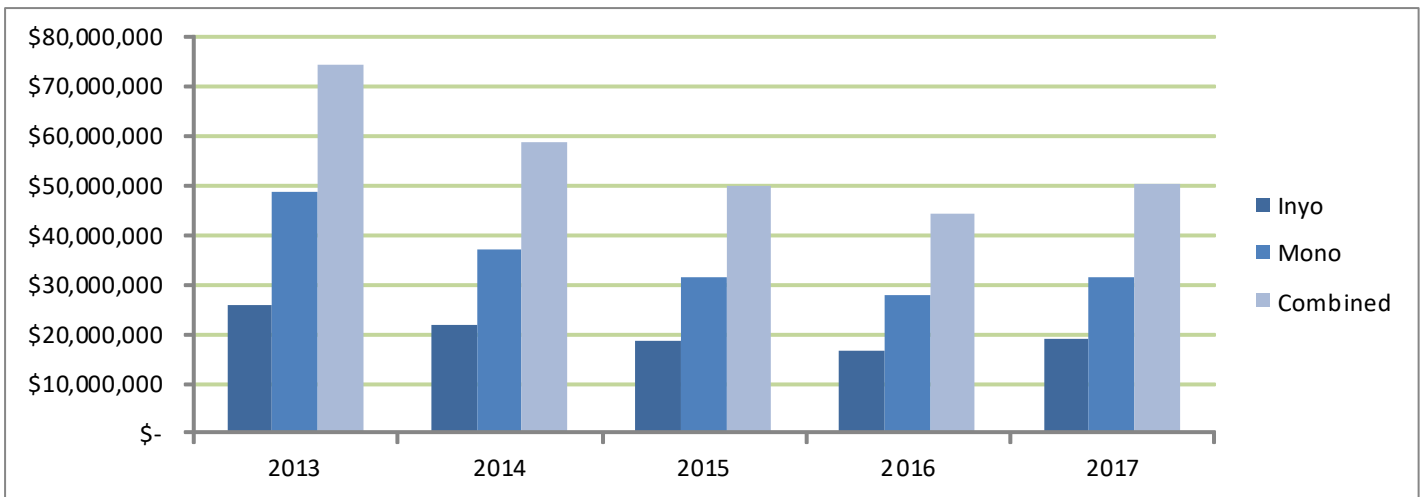
	Year	Total	
Livestock & Livestock Products	2017	\$15,755,000	▲ 14%
	2016	\$13,796,000	
Field Crops	2017	\$15,380,000	▲ 11%
	2016	\$13,869,000	
Forest Products	2017	\$70,100	▲ 19%
	2016	\$59,000	
Fruit & Nut Crops	2017	\$44,200	▲ 2%
	2016	\$43,300	
Nursery Products	2017	\$20,000	= 0%
	2016	\$20,000	
<b>Total Value</b>	<b>2017</b>	<b>\$31,269,000</b>	▲ 13%
	<b>2016</b>	<b>\$27,787,000</b>	

## Mono County Agricultural Production

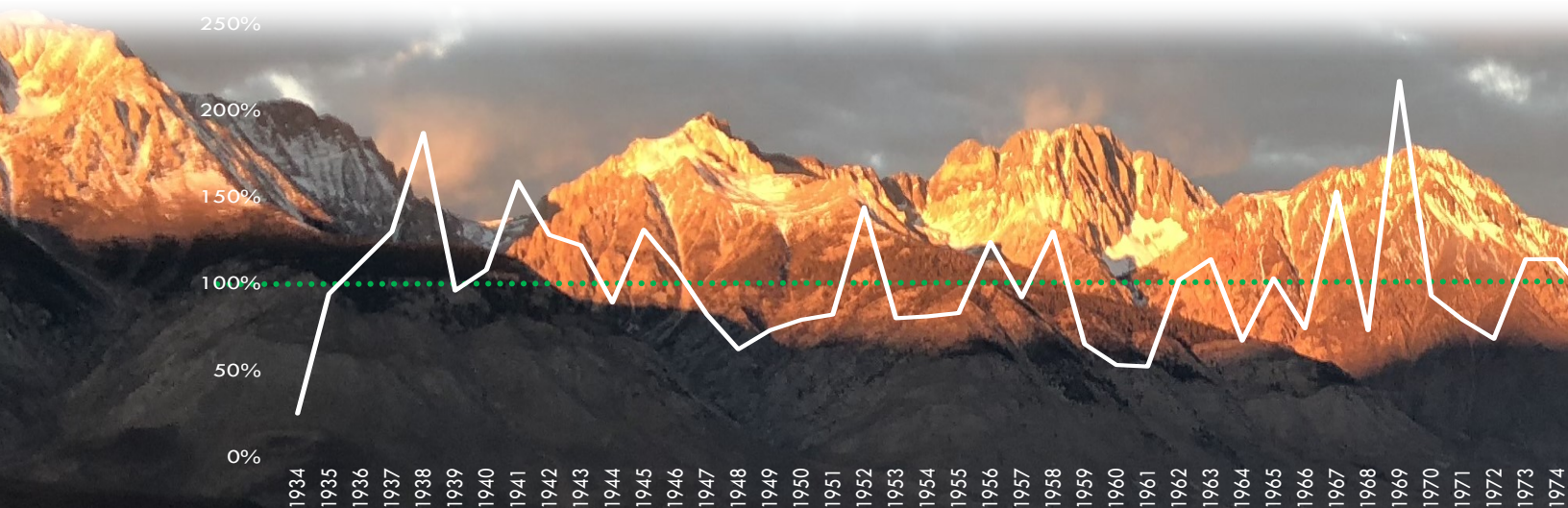


# FIVE YEAR COMPARISON

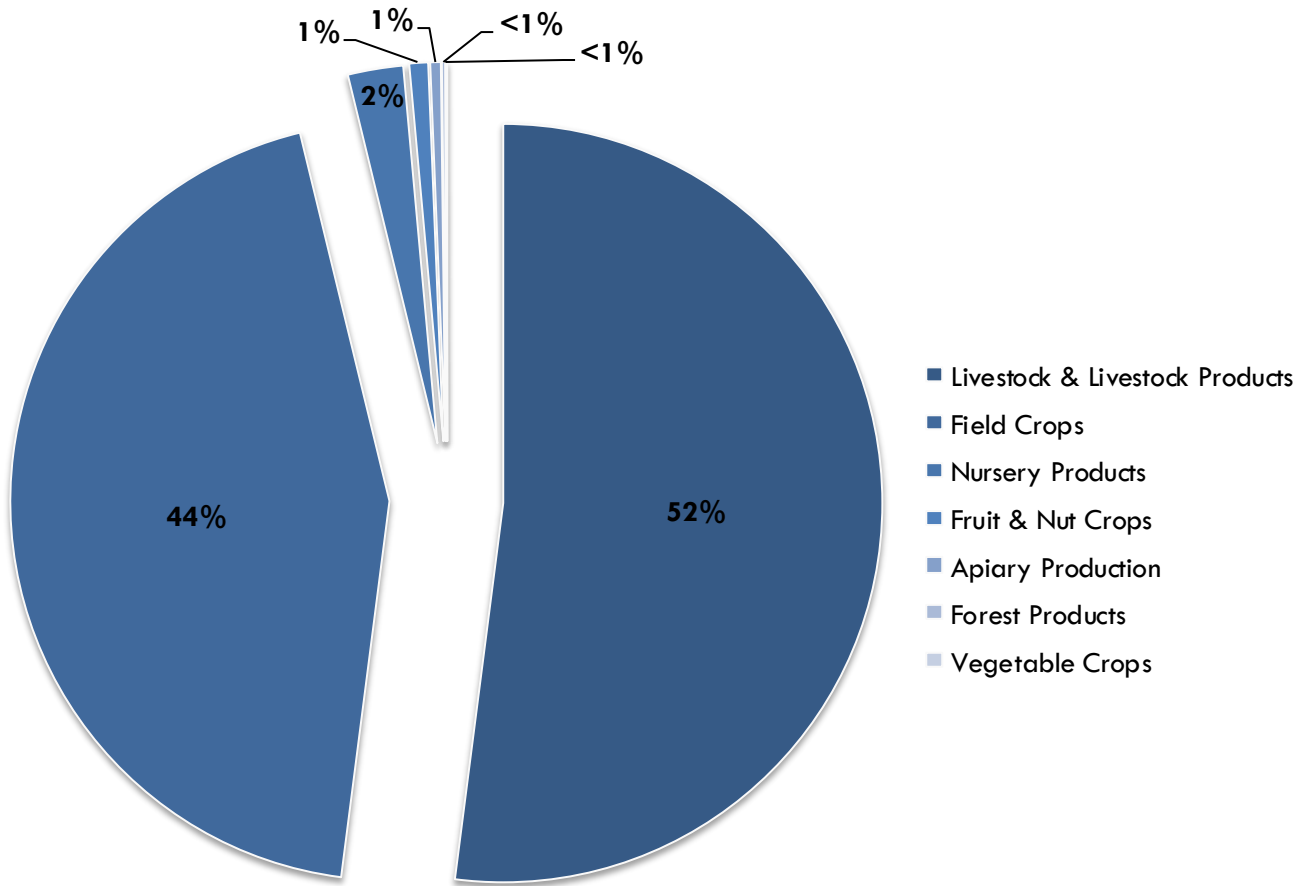
	2013	2014	2015	2016	2017
<b>Inyo County Totals</b>	<b>\$25,648,000</b>	<b>\$21,659,000</b>	<b>\$18,511,000</b>	<b>\$16,368,000</b>	<b>\$18,958,000</b>
<b>Mono County Totals</b>	<b>\$48,503,000</b>	<b>\$36,947,000</b>	<b>\$31,242,000</b>	<b>\$27,787,000</b>	<b>\$31,269,000</b>
<b>Combined Totals</b>	<b>\$74,151,000</b>	<b>\$58,606,000</b>	<b>\$49,753,000</b>	<b>\$44,155,000</b>	<b>\$50,227,000</b>



# EASTERN SIERRA RUNOFF CHART



## Combined Agricultural Production



# DIRECT MARKETING

## Commodities Grown by Certified Producers

Basil, chives, cilantro, dill, epazote, parsley, rosemary, sage, savory, tarragon, thyme, lemon balm, lavender, lovage, oregano, mint, spinach, watercress, corn, eggplant, tomato, squash, cucumber, peppers, green onions, potatoes, pumpkins, okra, onions, beets, fennel, garlic, artichoke, carrots, radishes, leek, lettuce, broccoli, kale, kohlrabi, chard, bok choy, cabbage, collard, parsnips, shallots, turnip, grapes, apples, peaches, pears, pecans, nectarines, apricots, cherries, plums, pomegranates, pluots, rhubarb, figs, watermelons, cantaloupes, honeydew, raspberries, blackberries, elderberries, currants, peas, sweet peas, various bean varieties, almonds, pistachios, walnuts, cut flowers, and eggs.

# SUSTAINABLE AGRICULTURE AND OUTREACH

## Invasive Plant Targets

<u>Pest</u>	<u>Agent/Mechanism</u>	<u>Number of Sites</u>	<u>Gross Acres</u>
Puncturevine	Biological Control	14 sites	~
Dalmatian Toadflax	Mechanical	3 sites	250
Yellow Starthistle	Mechanical/Herbicide	3 sites	12
Russian Knapweed	Herbicide	3 sites	100
Canada Thistle	Herbicide	2 sites	20
Spotted Knapweed	Herbicide	2 sites	3
Halogeton	Mechanical	5 sites	4,400
Scotch Thistle	Herbicide	8 sites	1,311
Camelthorn	Herbicide	1 site	40
Saltcedar	Herbicide	2 sites	85
Perennial Pepperweed	Herbicide	53 sites	12,000

## Outreach Program

During 2017, the Inyo/Mono Counties' Agriculture Department conducted:

- 2 SpraySafe events with over 100 professional card holders and private applicators attending, to meet California state continuing education requirements;
- 6 educational workshops for local groups;

The Department's inspection surveillance area, which encompasses over 10,000 square miles, provided outreach from northern Mono County, including several California and Nevada field crop growers located in the Antelope Valley area, to the southern tip of Inyo County, including a large commercial turf grass farm in the Sandy Valley, near Las Vegas, Nevada. The Inyo/Mono Agricultural Commissioner's office is tasked with the surveillance of 50% of the California/Nevada border for pests that could endanger the agricultural industry of California.

# WEIGHTS & MEASURES

## Device Inspection Program

We are responsible for inspection, certification, or condemnation of all commercially used meters (retail motor fuel, propane/vapor, and electric), scales (aggregate and cement hoppers, vehicle, livestock, computing, platform and spring scales); and any other type of device that is used to weigh or measure to determine a value for the purpose of sales. Enforcement actions can include issuance of citations initiating prosecution of violations. Of the 1,200+ devices inspected, 16 Notices of Violation were issued. Six consumer complaints were received and investigated by the Inyo/Mono Counties' Weights and Measures Department throughout the year. Regular inspections protect consumers from misrepresentation and maintain fair competition between sellers.

## Petroleum Program

We ensure the quality of petroleum products sold within the two Counties including; sampling of fuels, inspection and investigation of complaints. We also oversee all commercial advertisements of such products including price signs and labeling.

## Package Inspections

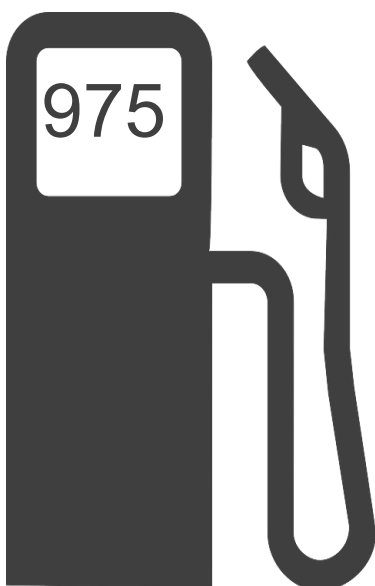
We inspect pre-packaged commodities in retail and wholesale facilities to determine proper weights, count or volume. We also verify proper sales equipment involving scanners, performing test purchases to insure accurate charges.

## Weighmaster Enforcement

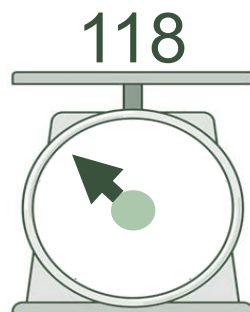
Weighmaster licenses are issued through our office to persons or entities that sell bulk commodities. Enforcement of weighmaster laws ensures that these transactions are accurate.

## Device Repairman Regulation

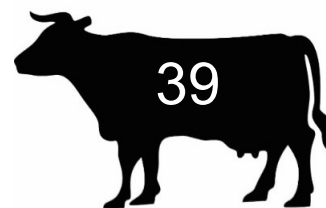
Anyone who installs or repairs a weighing or measuring device in Inyo or Mono Counties must register with our office and inform our office when work takes place. This ensures that devices are not tampered with and transaction equity.



Retail Fuel Meters



Counter and Computing Scales



Livestock Scales



Vehicle Scales



Aggregate Scales



# MOSQUITO ABATEMENT

## What is the mosquito control program?

The purpose of the program is to control mosquito populations throughout the Owens Valley from Olancha to Round Valley and in Mammoth Lakes so that these pests and their associated diseases are abated adequately.

## Monitoring

The Owens Valley Mosquito Abatement Program (OVMAP) and Mammoth Lakes Mosquito Abatement District (MLMAD) conduct surveillance to determine mosquito populations using several methods. Mosquito traps are deployed in several locations throughout the Owens Valley and in the Town of Mammoth Lakes, and are checked frequently to determine level of adult mosquito populations. Disease monitoring is component of this trapping effort, and insects caught in traps are sent to sample for the presence of certain diseases that mosquitos are known to spread. Complaints are logged and responded to, creating records that can also help with monitoring efforts. At times, staff will travel to areas where complaints are high and record landing rates of mosquitos to further gauge population density.

## Biocontrol

**Mosquito Fish** - The mosquito fish have been one of the most effective non-insecticidal and non-chemical methods of controlling mosquitoes for over eighty years. They breed throughout the summer and new broods are produced at intervals of about six weeks, with 50 to 100 young in a single brood. They are ready to begin the work of destroying mosquito larvae at once. Mosquito fish can eat mosquito larvae as fast as the larvae hatch from eggs, as many as 100 per day. Mosquito fish live 2-3 years and can tolerate a wide range of temperatures.

**Larviciding** - Routine larviciding of many hundreds of mosquito sources each week prevent immature mosquito larvae from reaching the flying and biting adult stage. This preferred first option for killing mosquitos is the cheapest and most effective method.

## Adulticiding

When larvaciding does not control mosquito populations adequately, OVMAP and MLMAD conduct adulticiding measures to protect our local communities from irritating insect bites and the potential for spreading of disease.

## Public Outreach and Cultural/Environmental Control

Outreach to residents about altering or removing conditions that best suit mosquito breeding is another effective tool in the OVMAP/MLMAD toolbox. These controls include proper irrigation practices, pool maintenance, and even making sure small containers or tires stored outside do not fill with stagnant water. Reducing the habitat conducive to mosquito breeding in the very areas where we live is a large step toward fewer itchy bites. Outreach efforts occur throughout the year through personal contact and social media, as well as at community events such as the Tri-County Fair.







### The Evolution of California Agricultural Commissioners and Sealers

The California Agricultural Commissioners trace their origins back 136 years. The goal of the Agricultural Commissioners is to protect the State's crops from the ravages of pests both domestic and imported. Then, as now, one of the principle weapons employed was a legal device called a "quarantine", which is derived from the French word "quarante", meaning "forty". The quarantine came about as a detention device, its first use being in the year 1340 when passengers on ships bound for Venice, Italy, were detained on board ship for 40 days. This was considered a long enough period to determine whether or not those passengers carried with them the Black Plague, which was killing many people in Europe in the mid-14th century.

California's first statewide program, which was the beginning of the present Department of Food and Agriculture, began with "An Act For the Promotion of Viticultural Industries of the State" on April 5, 1880. It provides for the appointment of a Board of State Viticultural Commissioners whose duties included the study of the grape root rot disease, *Phylloxera*. The Act specified that the University of California was responsible for instruction and experiments - a concept still existing today - giving the University the authority for research and the Department the regulatory functions. The Act provided for seven viticultural districts.

Until the year 1911, the duties of the State Board of Horticulture, the State Commissioner of Horticulture, county boards of horticulture commissioners and the county horticulture commissioners were limited to just a few obligations. These obligations consisted of preventing the introduction into the state of the pests from outside its boundaries, prevention of spread of insect pests and plant diseases through the media of nursery stock, fruit boxes, and other containers, and the inspection of nurseries. The years that followed would find the duties not only intensified in the same areas, but expanded into many other aspects of agriculture.

In the beginning the regulatory concern was to protect the California farmer from the depredations of exotic pests. After 1911, these duties were to be expanded to include concerns of the market place (standardization), and such cultural aids as assistance to the farmer in weed control and control of rodents and other damaging creatures. Later, they would enlarge to assure the farmer honest weights and measures, and protection from unscrupulous middlemen. Finally, the regulations would blossom into the full relationship of the farmer and the consumer.

Today, the California Department of Food and Agriculture and County Agricultural Commissioners are as busy helping the consumer as they are the farmer. They keep exotic pests away from the farmer's fields by fighting them in city gardens, where they nearly always are found first in the State. By so doing, they are affording city people as much protection as farmers, for these pests generally can wreak as much havoc in the city as in the country. They provide for, and oversee, standardization practices, thus insuring the farmers good markets for their products and insuring quality for consumers. They promote marketing of goods in a variety of ways, also assuring quality and quantity to consumers. They look after the health of livestock and plants, and the same benefits accrue to the consumer. They insist on measurement standards that also have dual blessings; and they assure the consumer and the farmer protection against the careless use of pesticides, thus affording protection to both people and the environment.



# 2018

## INYO AND MONO COUNTIES CROP AND LIVESTOCK REPORT



# Counties of Inyo and Mono Agricultural Commissioner's Office 2018 Crop and Livestock Report

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Carl Olsen      Aaron Parker





# COUNTIES OF INYO AND MONO



AGRICULTURE • WEIGHTS & MEASURES • OWENS VALLEY MOSQUITO ABATEMENT PROGRAM • EASTERN SIERRA WEED MANAGEMENT AREA  
MAMMOTH LAKES MOSQUITO ABATEMENT DISTRICT • INYO COUNTY COMMERCIAL CANNABIS PERMIT OFFICE

Karen Ross, *Secretary*  
California Department of Food and Agriculture

Teresa Marks, *Acting Director*  
California Department of Pesticide Regulation

The Honorable Board of Supervisors,  
County of Inyo

The Honorable Board of Supervisors,  
County of Mono

Rick Pucci, *Chair*

John Peters, *Chair*

Matt Kingsley

Mark Tillemans

Stacy Corless

Jennifer Halferty

Jeff Griffiths

Dan Totheroh

Bob Gardner

Fred Stump

I am pleased to present the 2018 Inyo and Mono Counties' Annual Crop and Livestock Report. This report is prepared pursuant to California Food and Agriculture Code 2279, and is a statistical compilation of agriculture production in Inyo and Mono Counties. These values reflect **gross** agricultural production within the two counties, and do not represent net profit or loss.

The gross combined agricultural production values for Inyo and Mono Counties in 2018 totaled \$53,846,000, representing an increase of more than 7% from 2017 production values. It is important to note that despite overall increases over two consecutive years, our local industry still has a long way to go to recover from losses incurred in the extended 2011-2016 drought.

The two most significant commodity groups for both counties continue to be livestock and livestock products, and field crops. Both of these commodity groups maintained increases in 2018. In Inyo County, the increases in these two commodity groups coupled with an increase in the nursery products group led to an overall 13% growth in production value. Total production in Inyo was valued at \$21,499,000. Mono County saw increases in every reporting commodity group except for nursery products, which remained static. Mono County's overall increase was 4%, bringing total production value to \$32,347,000.

I would like to thank my staff for assisting with the creation of this report. I'd also like to thank our local agricultural industry for their input, without which this report would not be possible.

Sincerely,

Nathan D. Reade  
Agricultural Commissioner

## Counties of Inyo and Mono Agricultural Commissioner's Office

The mission of the Inyo and Mono Counties Agricultural Commissioner's Office is to promote and protect the agricultural industry of the counties, protect the environment, and to ensure the health and safety of all of its citizens. The department is also responsible for fostering confidence and equity in the marketplace. The following are the main program areas:

### Human Safety and Environmental Protection

The County Agricultural Commissioner's Office protects the health and safety of all Inyo/Mono residents, its agricultural industries and its environment with a series of comprehensive regulatory programs designed to prevent the introduction of exotic pests and to ensure the safe use of pesticides. The five programs that exist to achieve these goals include:

- Pest Exclusion
- Pest Detection
- Pest Eradication
- Pest Management
- Pesticide Enforcement

### Consumer Protection and Product Quality

Product quality programs are designed to ensure the production and sales of quality eggs, honey, fruits, vegetables, and nursery and seed products. Quality standards that these programs ensure include maturity, grade, size, and weight. Packaging and labeling are also examined to ensure consumer expectations are met. The six programs include:

- Fruit and Vegetable Quality Control
- Organic Food Production
- Egg Quality Control
- Certified Farmers' Markets
- Nursery Inspection
- Seed Inspection

### Special Agricultural Services

The Agriculture Department also provides other mandated services, including:

- Apiary Inspection
- Crop Statistics
- Sustainable Agriculture

### Administrative and Education Outreach

Staff participate in a wide range of special projects intended to benefit Inyo/Mono citizens such as the legislative process, public information, education outreach efforts, as well as joint multi-agency and inter-county cooperative activities. Continuing education efforts sponsored by the Agriculture Department for pesticide safety help to ensure that local license-holders maintain adequate training.



## Invasive Plant Management

This division of the Agricultural Commissioner's office consists of 15 federal, state, county, and local agencies and entities. The Eastern Sierra Weed Management Area is dedicated to the eradication and control of invasive plant species in Inyo and Mono Counties through the cooperation and coordination of participating entities. The Eastern Sierra Weed Management Area participates in public outreach and education activities to ensure that people understand the threat of non-native weeds on our environment and agriculture industry.

## Weights and Measures

A gallon of gasoline, a cord of firewood, a loaf of bread, or a pound of fruits or vegetables...any item purchased is sold by weight, measure, or count. We protect the public from purchasing goods that are short weight or measure, and we protect businesses from giving their products and profits away when they use devices that could be inaccurate. We also verify that prices are scanned correctly at the counter, petroleum products meet quality standards, and weighmasters provide their customers accurate weighing devices. The eight programs in this category include:

- Weight Verification
- Measurement Verification
- Petroleum
- Transaction Verification
- Electronic Meters
- Compressed Gas Meters
- Weighmaster
- Device Repairmen Regulation

See page 15 for more information on this division.

## Mosquito Abatement

The purpose of this program is to provide the public with a consistent level of mosquito control that reduces the threat of disease transmission and the spread of large nuisance populations of mosquitoes. The Inyo/Mono Counties Agricultural Commissioner's Office administers the Owens Valley Mosquito Abatement Program and the Mammoth Lakes Mosquito Abatement District. See page 16 for more information on this division.

## Inyo County Commercial Cannabis Permitting Office

This division of our office coordinates the Commercial Cannabis Business License issuance, renewal, and oversight activities in Inyo County. Licensed activities include retail, manufacturing, distribution, testing, and cultivation. This office coordinates with the state of California Bureau of Cannabis Control as well as the CDFA CalCannabis to regulate local cannabis businesses.



# 2018

## Inyo County Crop and Livestock Statistics



### Inyo County General Information

County Seat:	Independence	<u>Average Climate</u>	
County Population:	18,546 (2010 census)	High	Low
Land Area:	10,142 sq. miles	Bishop:	98° 22°
Population Density:	1.83 persons per sq. mile	Death Valley:	115° 37°
Highest Elevation:	14,505 ft. (Mount Whitney)		
Lowest Elevation:	-282 ft. (Badwater, D.V.N.P.)		

#### Unincorporated Areas

Big Pine	Olancho
Cartago	Pearsonville
Independence	Shoshone
Lone Pine	

#### Land Ownership

Federal:	92.0%
City of Los Angeles:	3.9%
State of California:	2.4%
Private:	1.7%

#### Incorporated Cities

Bishop





## LIVESTOCK & LIVESTOCK PRODUCTS

	Year	Unit	Production	Value per Unit	Total	
Cattle & Calves	2018	Head	8,550	\$1,182	\$10,106,000	▲ 7%
	2017		8,230	\$1,130	\$9,300,000	
Sheep & Lambs*	2018	Head	4,410	\$158	\$697,000	▼ 16%
	2017		4,415	\$187	\$825,400	
Eggs	2018	Dozen	3,250	\$4.75	\$15,400	▼ 14%
	2017		3,765	\$4.75	\$17,900	
Wool	2018	Lbs	37,000	\$2.82	\$104,000	▲ 112%
	2017		22,700	\$2.17	\$49,200	
Miscellaneous**	2018				\$347,000	▲ 139%
	2017				\$145,000	
<b>Total Value</b>				<b>2018</b>	<b>\$11,269,000</b>	▲ 9%
				<b>2017</b>	<b>\$10,338,000</b>	

\* Includes feeder lamb gain.

\*\*Includes beef stocker gain, goats, hogs, and poultry.

## FIELD CROPS

	Year	Unit	Production	Value per Unit	Total	
Alfalfa Hay	2018	Ton	16,200	\$206	\$3,337,000	▲ 16%
	2017		15,184	\$190	\$2,885,000	
Pasture, Irrigated	2018	Acre	14,000	\$66	\$924,000	▼ 6%
	2017		14,000	\$70	\$980,000	
Pasture, Rangeland	2018	Acre	1,150,000	\$1.08	\$1,242,000	▼ 2%
	2017		1,150,000	\$1.10	\$1,265,000	
Miscellaneous*	2018	-	842	-	\$1,744,000	▲ 3%
	2017		625	-	\$1,696,000	
<b>Total Value</b>				<b>2018</b>	<b>\$7,247,000</b>	▲ 6%
				<b>2017</b>	<b>\$6,826,000</b>	

\*Includes garlic, grain hay, sudangrass, and other hay

## NURSERY PRODUCTS

	Year	Unit	Production	Value per Unit	Total	
Nursery Stock*	2018	Acre	181	-	\$2,582,000	▲ 18%
	2017		139	-	\$1,185,000	
			<b>Total Value</b>	<b>2018</b>	<b>\$2,582,000</b>	▲ 18%
				<b>2017</b>	<b>\$1,185,000</b>	

\*Includes palms, turf, and miscellaneous plants.

## FRUIT & NUT CROPS

	Year	Unit	Production	Value per Unit	Total	
Miscellaneous*	2018	Acres	32	-	\$203,000	▼ 43%
	2017		35	-	\$358,200	
			<b>Total Value</b>	<b>2018</b>	<b>\$203,000</b>	▼ 43%
				<b>2017</b>	<b>\$358,200</b>	

\* Includes almonds, apples, apricots, blackberries, cherries, dates, figs, grapes (table), grapes (wine), nectarines, peaches, pears, pecans, persimmons, plums, pomegranates, raspberries, strawberries, and walnuts.

## APIARY PRODUCTION

	Year	Unit	Production	Value per Unit	Total	
Honey	2018	Lb	56,100	\$3.00	\$168,000	▼ 24%
	2017		88,400	\$2.49	\$219,800	
Miscellaneous*	2018	-	-	-	\$5,400	= 0%
	2017		-	-	\$5,400	
			<b>Total Value</b>	<b>2018</b>	<b>\$173,000</b>	▼ 23%
				<b>2017</b>	<b>\$225,000</b>	

\* Includes beeswax and pollen.

## VEGETABLE CROPS

	Year	Unit	Production	Value per Unit	Total	
Miscellaneous*	2018	Acres	3	-	\$25,000	▼ 1%
	2017		3	-	\$25,200	
			<b>Total Value</b>	<b>2018</b>	<b>\$25,000</b>	▼ 1%
				<b>2017</b>	<b>\$25,200</b>	

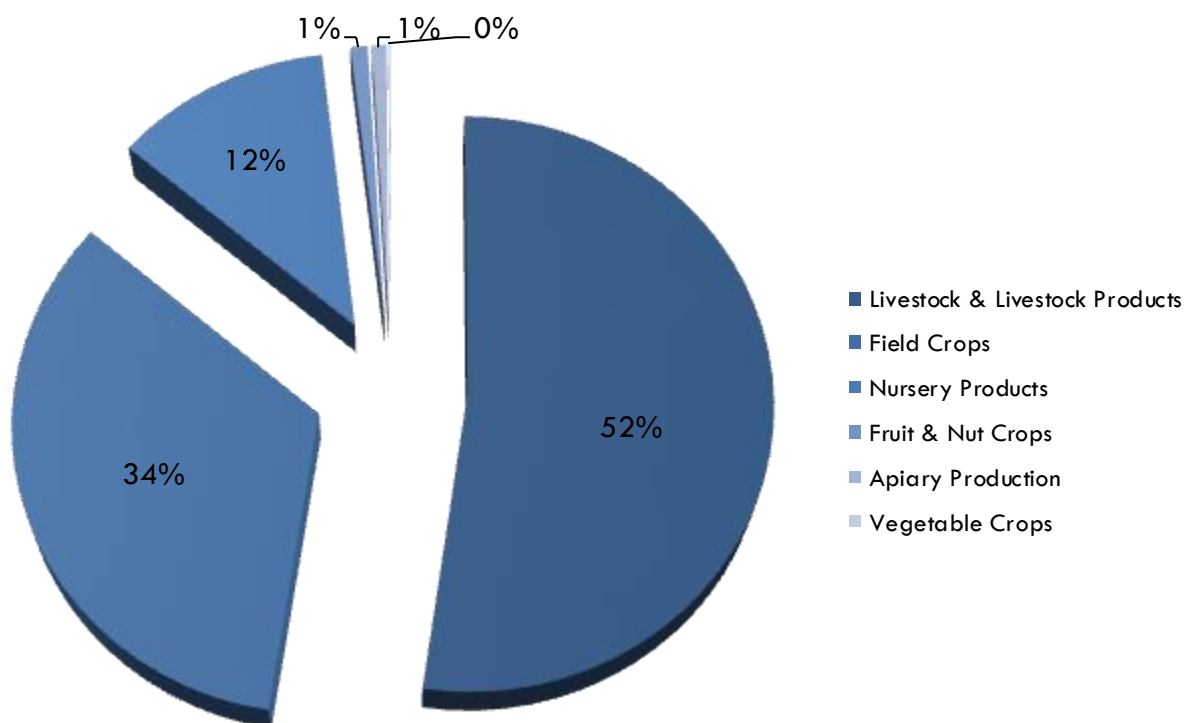
\* Includes Includes artichokes, beans, brassicas, carrots, cucumbers, eggplant, garlic, herbs, leafy greens, melons, onions, peppers, pumpkins, radishes, squash, sweet corn, tomatillos, tomatoes, and tubers.



## INYO COUNTY TOTALS

	Year	Total	
Livestock & Livestock Products	2018	\$11,269,000	▲ 9%
	2017	\$10,338,000	
Field Crops	2018	\$7,247,000	▲ 6%
	2017	\$6,826,000	
Nursery Products	2018	\$2,582,000	▲ 18%
	2017	\$1,185,000	
Fruit & Nut Crops	2018	\$203,000	▼ 43%
	2017	\$358,200	
Apiary Production	2018	\$173,000	▼ 23%
	2017	\$225,200	
Vegetable Crops	2018	\$25,000	▼ 1%
	2017	\$25,200	
<b>Total Value</b>	<b>2018</b>	<b>\$21,499,000</b>	<b>▲ 13%</b>
	<b>2017</b>	<b>\$18,958,000</b>	

## INYO COUNTY AGRICULTURAL PRODUCTION BY CATEGORY



# 2018

## Mono County Crop and Livestock Statistics

### Mono County General Information

County Seat:	Bridgeport
County Population:	14,202 (2010 census)
Land Area:	3,044 sq. miles
Population Density:	4.67 persons per sq. mile
Highest Elevation:	14,252 ft. (White Mountain)

#### Unincorporated Areas

Benton	June Lake
Bridgeport	Lee Vining
Chalfant Valley	Topaz
Coleville	Tom's Place
Hammil Valley	Walker

#### Incorporated Cities

Mammoth Lakes

#### Average Climate

	High	Low
Bridgeport:	81°	8°
Hammil Valley:	98°	22°

#### Land Ownership

Federal:	84.7%
City of Los Angeles:	3.2%
State of California:	3.6%
Private:	6.5%



## Livestock & Livestock Products

	Year	Unit	Production	Value per Unit	Total	
Cattle & Calves	2018	Head	9,180	\$1,182	\$10,851,000	▲ 9%
	2017		8,830	\$1,130	\$9,978,000	
Sheep & Lambs*	2018	Head	16,370	\$158	\$2,586,000	▼ 17%
	2017		16,705	\$187	\$3,124,000	
Wool	2018	Lbs	76,800	\$2.82	\$217,000	▲ 16%
	2017		98,306	\$2.17	\$213,300	
Miscellaneous**	2018				\$2,290,000	▼ 6%
	2017				\$2,440,000	
<b>Total Value</b>				<b>2018</b>	<b>\$15,944,000</b>	▲ 1%
				<b>2017</b>	<b>\$15,755,000</b>	

\*Includes feeder lamb gain.

\*\*Includes beef stocker gain, goats, hogs, and poultry.

## Field Crops

	Year	Unit	Production	Value per Unit	Total	
Alfalfa Hay	2018	Ton	58,100	\$198	\$11,504,000	▲ 21%
	2017		56,100	\$170	\$9,537,000	
Pasture, Irrigated	2018	Acre	20,500	\$70	\$1,435,000	▼ 21%
	2017		26,000	\$70	\$1,820,000	
Pasture, Rangeland	2018	Acre	1,078,000	\$1.39	\$1,498,000	▲ 3%
	2017		1,072,000	\$1.36	\$1,458,000	
Miscellaneous*	2018	-	1,532	-	\$1,798,000	▼ 30%
	2017		1,473**	-	\$2,565,000	
<b>Total Value</b>				<b>2018</b>	<b>\$16,235,000</b>	▲ 6%
				<b>2017</b>	<b>\$15,380,000</b>	

\*Includes garlic, grain hay, sudangrass, and other hay

\*\*Corrected

## Forest Products

	Year	Total	
Timber and Firewood	2018	\$86,300	▲ 23%
	2017	\$70,100	
<b>Total Value</b>	<b>2018</b>	<b>\$86,300</b>	▲ 23%
	<b>2017</b>	<b>\$70,100</b>	

## Fruit & Nut Crops

	Year	Unit	Production	Value per Unit	Total	
Miscellaneous*	2018	Acres	17	-	\$61,200	▲ 39%
	2017		18	-	\$44,200	
<b>Total Value</b>	<b>2018</b>				<b>\$61,200</b>	▲ 39%
	<b>2017</b>				<b>\$44,200</b>	

\* Includes grapes (wine), pome fruit, and stone fruit.

## Nursery Products

	Year	Unit	Production	Value per Unit	Total	
Nursery Stock*	2018	Acre	1	-	\$20,000	= 0%
	2017		1	-	\$20,000	
<b>Total Value</b>	<b>2018</b>				<b>\$20,000</b>	= 0%
	<b>2017</b>				<b>\$20,000</b>	

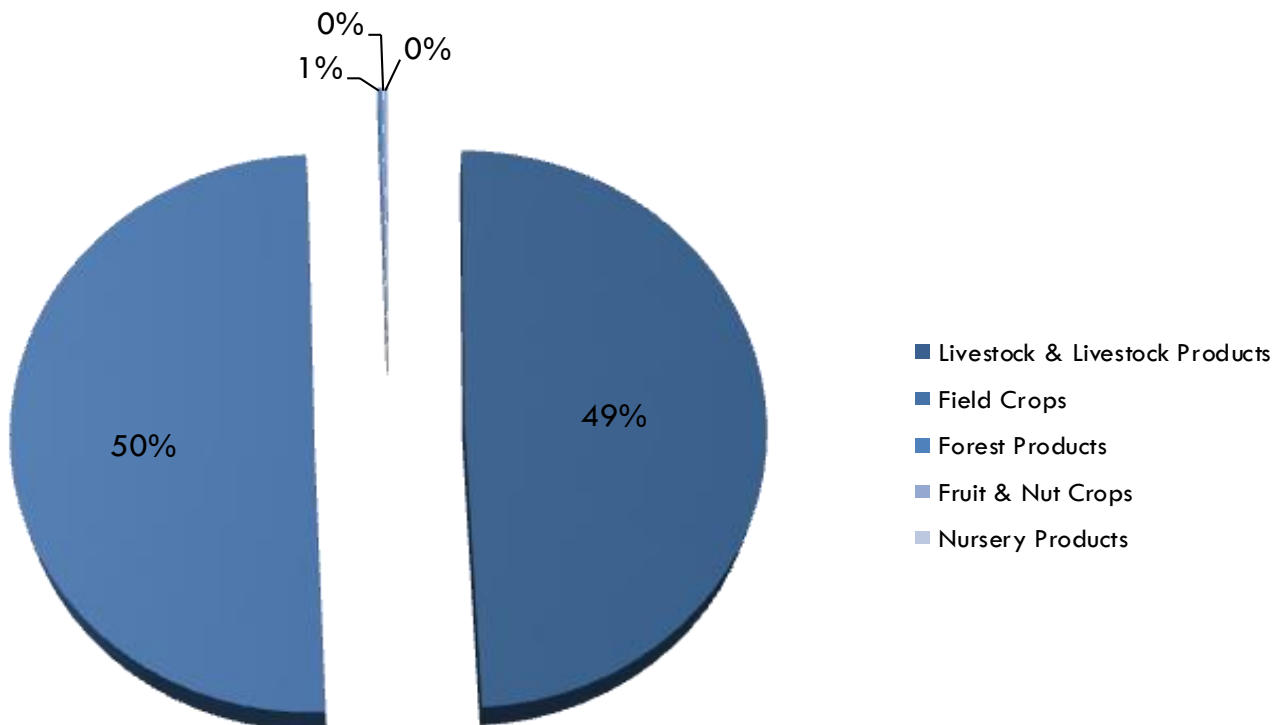
\* Includes various ornamental plants



## Mono County Totals

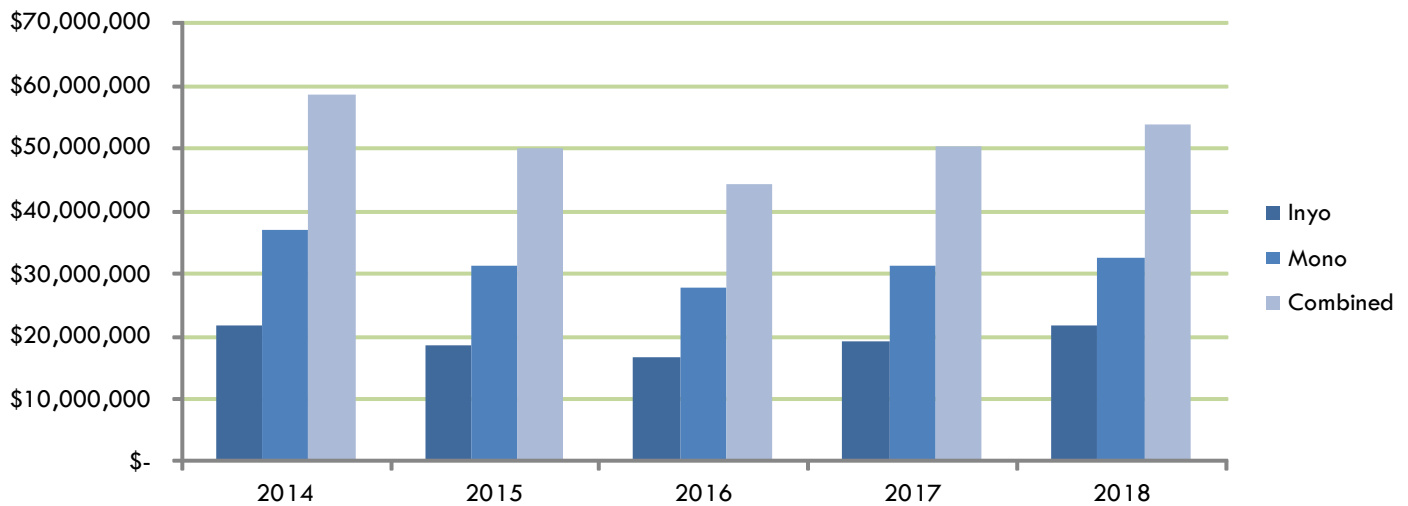
	Year	Total	
Livestock & Livestock Products	2018	\$15,944,000	▲ 1%
	2017	\$15,755,000	
Field Crops	2018	\$16,235,000	▲ 6%
	2017	\$15,380,000	
Forest Products	2018	\$86,300	▲ 23%
	2017	\$70,100	
Fruit & Nut Crops	2018	\$61,200	▲ 39%
	2017	\$44,200	
Nursery Products	2018	\$20,000	= 0%
	2017	\$20,000	
<b>Total Value</b>	<b>2018</b>	<b>\$32,347,000</b>	▲ 4%
	<b>2017</b>	<b>\$31,269,000</b>	

## Mono County Agricultural Production

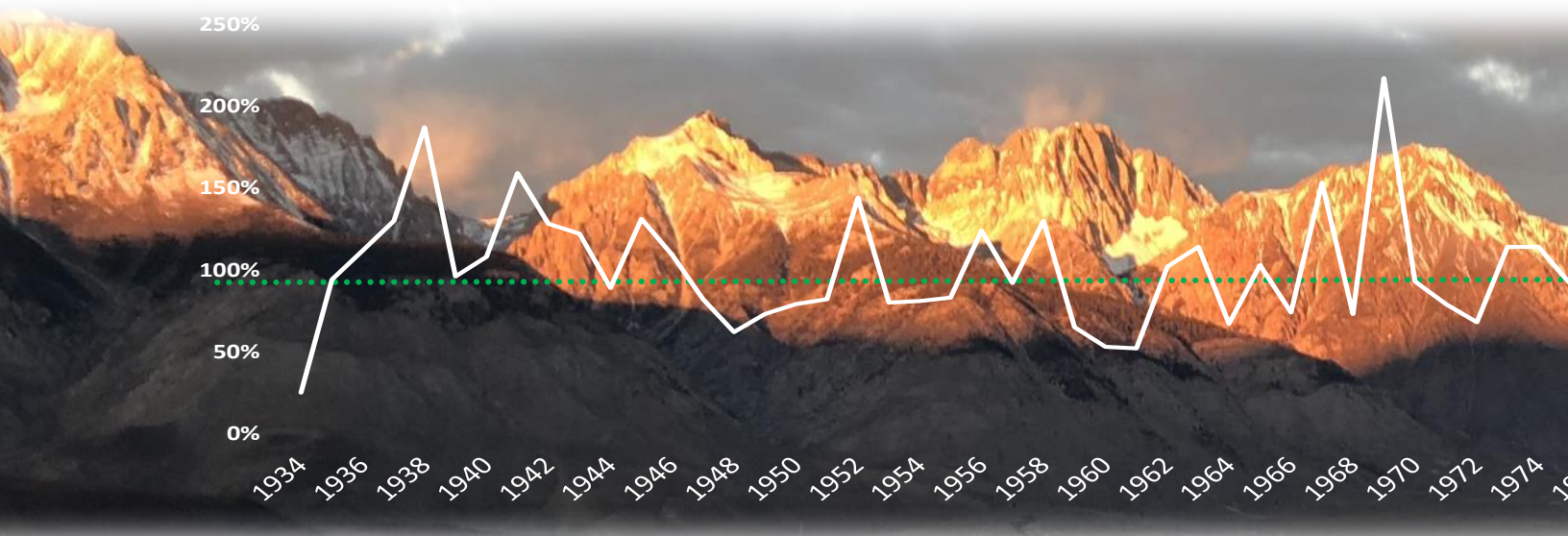


# FIVE YEAR COMPARISON

	2014	2015	2016	2017	2018
<b>Inyo County Totals</b>	<b>\$21,659,000</b>	<b>\$18,511,000</b>	<b>\$16,368,000</b>	<b>\$18,958,000</b>	<b>\$21,499,000</b>
<b>Mono County Totals</b>	<b>\$36,947,000</b>	<b>\$31,242,000</b>	<b>\$27,787,000</b>	<b>\$31,269,000</b>	<b>\$32,347,000</b>
<b>Combined Totals</b>	<b>\$58,606,000</b>	<b>\$49,753,000</b>	<b>\$44,155,000</b>	<b>\$50,227,000</b>	<b>\$53,846,000</b>

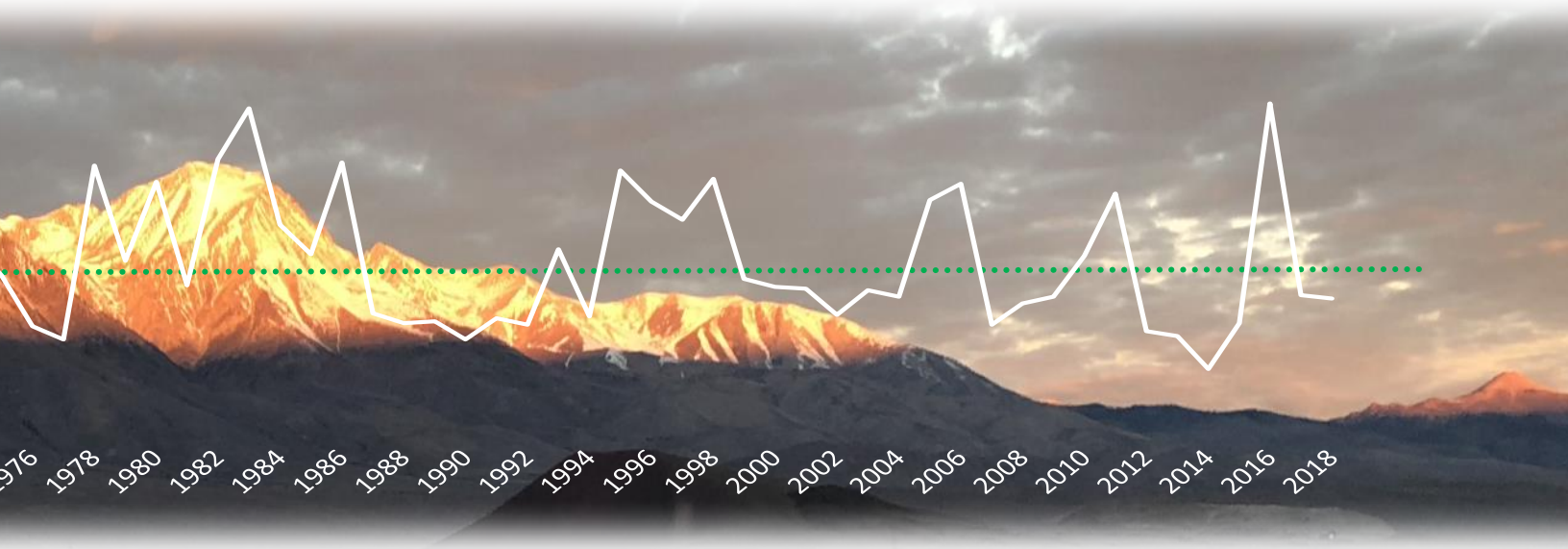
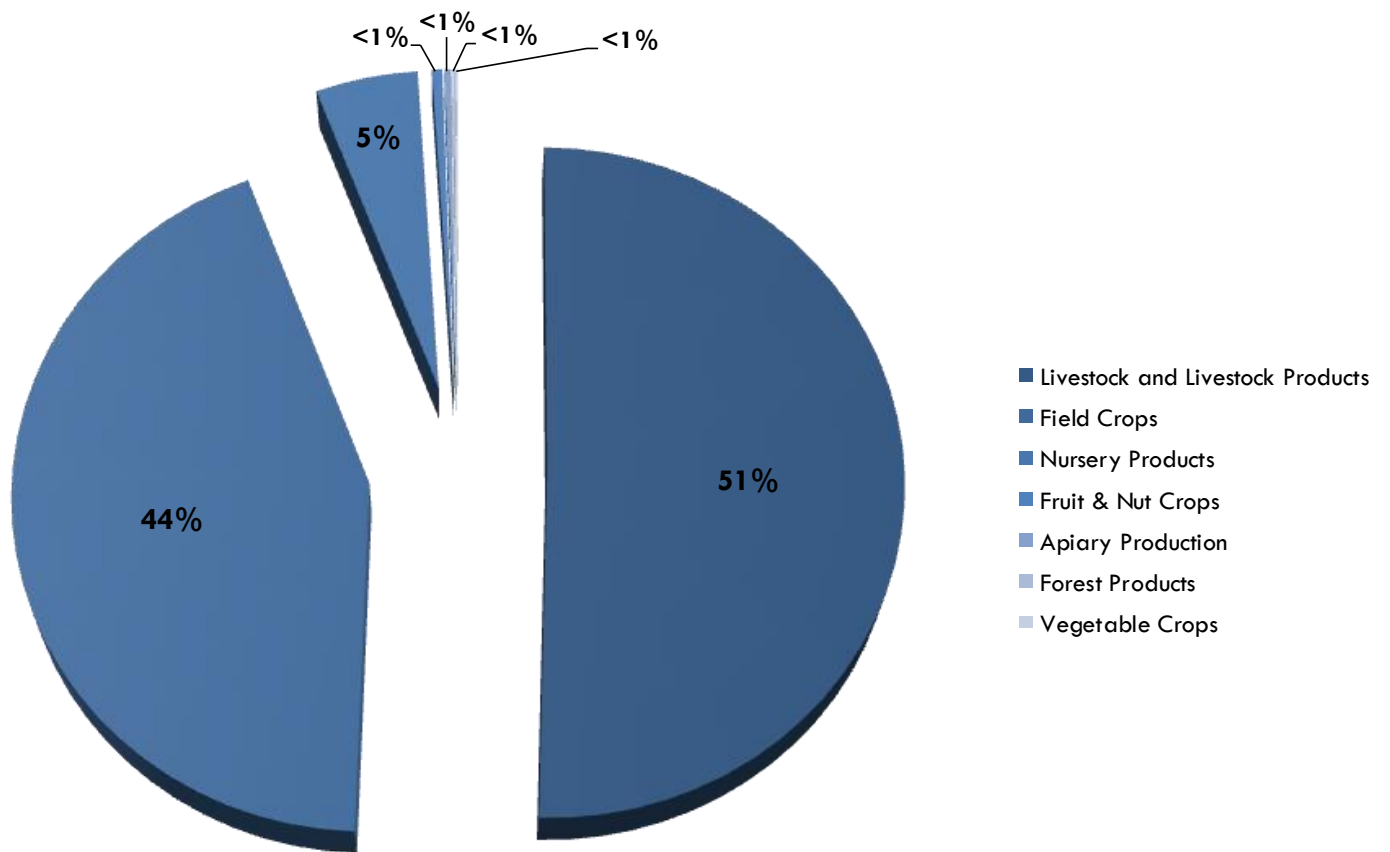


# EASTERN SIERRA RUNOFF CHART





## Combined Agricultural Production



# DIRECT MARKETING

## Commodities Grown by Certified Producers

Basil, chives, cilantro, dill, epazote, parsley, rosemary, sage, savory, tarragon, thyme, lemon balm, lavender, lovage, oregano, mint, spinach, watercress, corn, eggplant, tomato, squash, cucumber, peppers, green onions, potatoes, pumpkins, okra, onions, beets, fennel, garlic, artichoke, carrots, radishes, leek, lettuce, broccoli, kale, kohlrabi, chard, bok choy, cabbage, collard, parsnips, shallots, turnip, grapes, apples, peaches, pears, pecans, nectarines, apricots, cherries, plums, pomegranates, pluots, rhubarb, figs, watermelons, cantaloupes, honeydew, raspberries, blackberries, elderberries, currants, peas, sweet peas, various bean varieties, almonds, pistachios, walnuts, cut flowers, and eggs.

# SUSTAINABLE AGRICULTURE AND OUTREACH

## Invasive Plant Targets

<u>Pest</u>	<u>Agent/Mechanism</u>	<u>Number of Sites</u>	<u>Gross Acres</u>
Puncturevine	Biological Control	14 sites	~
Dalmatian Toadflax	Mechanical	3 sites	250
Yellow Starthistle	Mechanical/Herbicide	3 sites	12
Russian Knapweed	Herbicide	3 sites	100
Canada Thistle	Herbicide	2 sites	20
Spotted Knapweed	Herbicide	2 sites	3
Halogeton	Mechanical	5 sites	4,400
Scotch Thistle	Herbicide	8 sites	1,311
Camelthorn	Herbicide	1 site	40
Saltcedar	Herbicide	2 sites	85
Perennial Pepperweed	Herbicide	53 sites	12,000

## Outreach Program

During 2018, the Inyo/Mono Counties' Agriculture Department conducted:

- 2 SpraySafe events in Inyo and Mono Counties with over 100 professional card holders and private applicators attending, to meet California state continuing education requirements;
- 6 educational workshops for local groups;

The Department's inspection surveillance area, which encompasses over 10,000 square miles, provided outreach from northern Mono County, including several California and Nevada field crop growers located in the Antelope Valley area, to the southern tip of Inyo County, including a large commercial turf grass farm in the Sandy Valley, near Las Vegas, Nevada. The Inyo/Mono Agricultural Commissioner's office is tasked with the surveillance of 50% of the California/Nevada border for pests that could endanger the agricultural industry of California.

# WEIGHTS & MEASURES

## Device Inspection Program

We are responsible for inspection, certification, or condemnation of all commercially used meters (retail motor fuel, propane/vapor, and electric), scales (aggregate and cement hoppers, vehicle, livestock, computing, platform and spring scales); and any other type of device that is used to weigh or measure to determine a value for the purpose of sales. Enforcement actions can include issuance of citations initiating prosecution of violations. Of the 1,200+ devices inspected, six Notices of Violation were issued. Two consumer complaints were received and investigated by the Inyo/Mono Counties' Weights and Measures Department throughout the year. Regular inspections protect consumers from misrepresentation and maintain fair competition between sellers.

## Petroleum Program

We ensure the quality of petroleum products sold within the two Counties including; sampling of fuels, inspection and investigation of complaints. We also oversee all commercial advertisements of such products including price signs and labeling. While conducting these inspections, staff will also check for credit card skimming devices. Several such devices were discovered and removed in 2018.

## Package Inspections

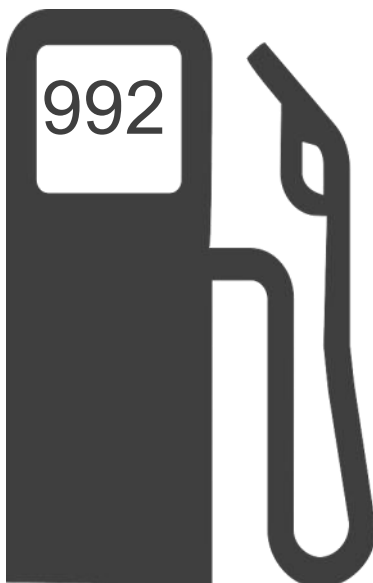
We inspect pre-packaged commodities in retail and wholesale facilities to determine proper weights, count or volume. We also verify proper sales equipment involving scanners, performing test purchases to insure accurate charges.

## Weighmaster Enforcement

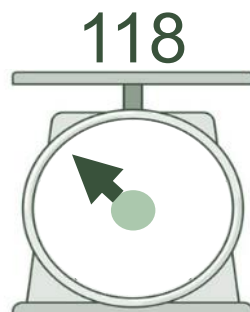
Weighmaster licenses are issued through our office to persons or entities that sell bulk commodities. Enforcement of weighmaster laws ensures that these transactions are accurate.

## Device Repairman Regulation

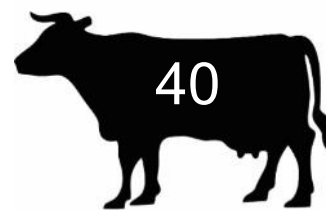
Anyone who installs or repairs a weighing or measuring device in Inyo or Mono Counties must register with our office and inform our office when work takes place. This ensures that devices are not tampered with and transaction equity.



Retail Fuel Meters



Counter and Computing Scales



Livestock Scales



Vehicle Scales



Aggregate Scales



# MOSQUITO ABATEMENT

## What is the mosquito control program?

The purpose of the program is to control mosquito populations throughout the Owens Valley from Olancha to Round Valley and in Mammoth Lakes so that these pests and their associated diseases are abated adequately.

## Monitoring

The Owens Valley Mosquito Abatement Program (OVMAP) and Mammoth Lakes Mosquito Abatement District (MLMAD) conduct surveillance to determine mosquito populations using several methods. Mosquito traps are deployed in several locations throughout the Owens Valley and in the Town of Mammoth Lakes, and are checked frequently to determine level of adult mosquito populations. Disease monitoring is component of this trapping effort, and insects caught in traps are sent to sample for the presence of certain diseases that mosquitos are known to spread. Complaints are logged and responded to, creating records that can also help with monitoring efforts. At times, staff will travel to areas where complaints are high and record landing rates of mosquitos to further gauge population density.

## Biocontrol

**Mosquito Fish** - The mosquito fish have been one of the most effective non-insecticidal and non-chemical methods of controlling mosquitoes for over eighty years. They breed throughout the summer and new broods are produced at intervals of about six weeks, with 50 to 100 young in a single brood. They are ready to begin the work of destroying mosquito larvae at once. Mosquito fish can eat mosquito larvae as fast as the larvae hatch from eggs, as many as 100 per day. Mosquito fish live 2-3 years and can tolerate a wide range of temperatures.

**Larviciding** - Routine larviciding of many hundreds of mosquito sources each week prevent immature mosquito larvae from reaching the flying and biting adult stage. This preferred first option for killing mosquitos is the cheapest and most effective method.

## Adulticiding

When larvaciding does not control mosquito populations adequately, OVMAP and MLMAD conduct adulticiding measures to protect our local communities from irritating insect bites and the potential for spreading of disease.

## Public Outreach and Cultural/Environmental Control

Outreach to residents about altering or removing conditions that best suit mosquito breeding is another effective tool in the OVMAP/MLMAD toolbox. These controls include proper irrigation practices, pool maintenance, and even making sure small containers or tires stored outside do not fill with stagnant water. Reducing the habitat conducive to mosquito breeding in the very areas where we live is a large step toward fewer itchy bites. Outreach efforts occur throughout the year through personal contact and social media, as well as at community events such as the Tri-County Fair.





### The Evolution of California Agricultural Commissioners and Sealers

The California Agricultural Commissioners trace their origins back 139 years. The goal of the Agricultural Commissioners is to protect the State's crops from the ravages of pests both domestic and imported. Then, as now, one of the principle weapons employed was a legal device called a "quarantine", which is derived from the French word "quarante", meaning "forty". The quarantine came about as a detention device, its first use being in the year 1340 when passengers on ships bound for Venice, Italy, were detained on board ship for 40 days. This was considered a long enough period to determine whether or not those passengers carried with them the Black Plague, which was killing many people in Europe in the mid-14th century.

California's first statewide program, which was the beginning of the present Department of Food and Agriculture, began with "An Act For the Promotion of Viticultural Industries of the State" on April 5, 1880. It provided for the appointment of a Board of State Viticultural Commissioners whose duties included the study of the grape root rot disease, *Phylloxera*. The Act specified that the University of California was responsible for instruction and experiments - a concept still existing today - giving the University the authority for research and the Department the regulatory functions. The Act provided for seven viticultural districts.

Until the year 1911, the duties of the State Board of Horticulture, the State Commissioner of Horticulture, county boards of horticulture commissioners and the county horticulture commissioners were limited to just a few obligations. These obligations consisted of preventing the introduction into the state of pests from outside its boundaries, prevention of spread of insect pests and plant diseases through the media of nursery stock, fruit boxes, and other containers, and the inspection of nurseries. The years that followed would find the duties not only intensified in the same areas, but expanded into many other aspects of agriculture.

In the beginning the regulatory concern was to protect the California farmer from the depredations of exotic pests. After 1911, these duties were to be expanded to include concerns of the marketplace (standardization), and such cultural aids as assistance to the farmer in weed control and control of rodents and other damaging creatures. Later, they would enlarge to assure the farmer honest weights and measures, and protection from unscrupulous middlemen. Finally, the regulations would blossom into the full relationship of the farmer and the consumer.

Today, the California Department of Food and Agriculture and County Agricultural Commissioners are as busy helping the consumer as they are the farmer. They keep exotic pests away from the farmer's fields by fighting them in city gardens, where they nearly always are found first. By so doing, they are affording city people as much protection as farmers, for these pests generally can wreak as much havoc in the city as in the country. They provide for, and oversee, standardization practices, thus insuring the farmer's good markets for their products and insuring quality for consumers. They promote marketing of goods in a variety of ways, also assuring quality and quantity to consumers. They look after the health of livestock and plants, and the same benefits accrue to the consumer. They insist on measurement standards that also have dual blessings; and they assure the consumer and the farmer protection against the careless use of pesticides, thus affording protection to both people and the environment.

