

# Counties of Inyo and Mono Agricultural Commissioner's Office 2011 Crop and Livestock Report





# 2011 Crop and Livestock Report

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## **Agriculture and Weights & Measures Departments**



### **Eastern Sierra Weed Management Area**



### **Owens Valley Mosquito Abatement Program**

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**This and previous year's crop reports can also be viewed online at:**

**<http://www.inyomonoagriculture.com/reports.html>**



# Counties of Inyo & Mono



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

## The Honorable Board of Supervisors, County of Inyo

**Marty Fortney, Chairman**

**Linda Arcularius Susan Cash**  
**Richard Cervantes Rick Pucci**

## The Honorable Board of Supervisors, County of Mono

**Vikki Magee-Bauer, Chairman**

**Tim Hanson D. “Hap” Hazard**  
**Byng Hunt Larry Johnson**

It is my pleasure to present the 2011 Agricultural Crop and Livestock Report. The figures herein are in accordance with section 2279 of the California Food and Agriculture Code, and only represent gross agricultural values.

Agriculture continues to be an integral part of the economics of the Eastern Sierra region, and over the years one of its most stable components.

The combined agricultural production for 2011 is \$79,412,962, which is an increase of 26% from 2010 totals, and represents our highest vales ever recorded.

Beef cattle remained strong in 2011, including increases in the export market. Alfalfa and other hay had major increases compared to the previous year. Our high protein, high elevation hay is desired by the California dairy industry.

Other products showing an increase in value include the lamb and honey markets. Honey production, although lower statewide, was stable in Inyo County and prices for honey continue to climb.

Abundant precipitation in 2011 aided the high crop production in both counties; however, this coming year’s run-off is trending lower.

My appreciation goes out to the growers, ranchers and agencies that provided data and to Nathan and Jennifer for their support in assembling this report.

Sincerely,

George L. Milovich  
Agricultural Commissioner

*“I know of no pursuit in which more real and important services can be rendered to any country than by improving its agriculture, its breed of useful animals, and other branches of a husbandman’s cares”*

George Washington





## THE EVOLUTION OF AGRICULTURE and WEIGHTS AND MEASURES

The California Agricultural Commissioners trace their origins back 130 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 derives 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 start 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.

2011 is the 130<sup>th</sup> anniversary of the California Agricultural Commissioner and Sealer Association.



## **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**

We protect 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

The Agricultural Commissioner/Sealer of Weights and Measures is responsible for the administration of these programs. Staff also participates in a wide range of special projects intended to benefit Inyo/Mono citizens such as legislative process, public information, education outreach efforts, joint multi-agency and inter-county cooperative activities.

### 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 facilitates goals also through public outreach and education activities.

### OWENS VALLEY MOSQUITO CONTROL PROGRAM

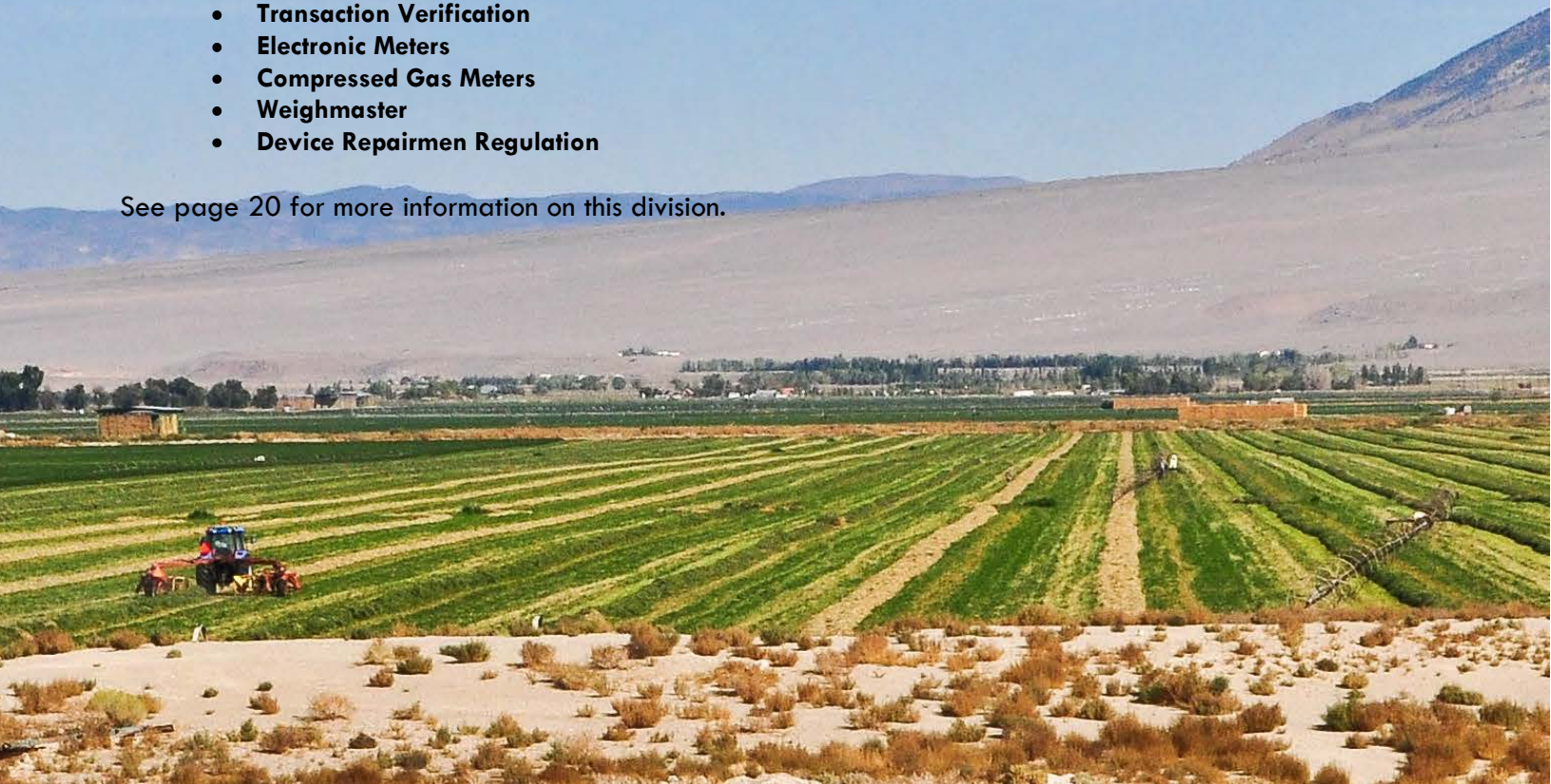
The purpose of this program is to provide the public with a consistent level of mosquito control that reduces the threat of disease transmission and the spread of large nuisance populations of mosquitoes. See page 21 for more information on this division.

## WEIGHTS AND MEASURES

Equity and fairness is the name of the game. 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 20 for more information on this division.







## Inyo County General Information

County Seat	Independence
County Population (2010 census)	18,546
Land Area (square miles)	10,142
Persons per Square Mile	1.83
Highest Elevation (Mount Whitney)	14,492 feet
Lowest Elevation (Badwater, Death Valley National Park)	282 feet below sea level
Land in Federal Ownership	92.0%
Land in State Ownership	2.4%
Land in City of Los Angeles Ownership	3.9%
Land in Private Ownership	1.7%

Incorporated Cities/Towns:

Bishop

Unincorporated Areas:

Big Pine  
 Cartago  
 Independence  
 Lone Pine  
 Olancho  
 Pearsonville  
 Shoshone  
 Tecopa

Average Climate:

Bishop:

Summer High—98°  
 Winter Low—22°

Death Valley:

Summer High—115°  
 Winter Low—37°





## Mono County General Information

County Seat	Bridgeport
County Population (2010 census)	14,202
Land Area (square miles)	3,044
Persons per Square Mile	4.67
Highest Elevation (White Mountain)	14,242 feet
Land in Federal Ownership	84.7%
Land in State Ownership	3.6%
Land in City of Los Angeles Ownership	3.2%
Land in Private Ownership	7.8%

Incorporated Cities/Towns:  
Mammoth Lakes

Unincorporated Areas:

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

Average Climate:

**Bridgeport:**

Summer High—81°  
 Winter Low—8°

**Chalfant Valley:**

Summer High—98°  
 Winter Low—22°



## Livestock

LIVESTOCK						
ITEM	YEAR	HEAD	LIVEWEIGHT	UNIT	PRICE PER UNIT	TOTAL
Calves/Steers	2011	5,800	34,800	Cwt.	\$135.00	\$4,698,000
	2010	5,650	33,960		\$116.00	\$3,939,360
Calves/Heifers	2011	5,160	28,380	Cwt.	\$131.00	\$3,717,780
	2010	5,050	29,040		\$112.00	\$3,252,480
Cows	2011	2,000	22,000	Cwt.	\$100.00	\$2,200,000
	2010	2,470	27,170		\$81.00	\$2,200,770
Bulls	2011	225	3,150	Cwt.	\$95.00	\$299,250
	2010	220	3,080		\$72.00	\$221,760
Stockers (gain)	2011	5,500	~	~	~	\$2,341,625
	2010	5,000	~	~	~	\$1,820,000
Sheep and Lambs	2011	5,000	5,000	Cwt.	\$190.00	\$950,000
	2010	5,000	5,000		\$140.00	\$700,000
<b>TOTAL LIVESTOCK:</b>				<b>2011</b>		<b>\$14,206,655</b>
				<b>2010</b>		<b>\$12,134,370</b>





# Field Crops



FIELD CROPS							
ITEM	YEAR	HARVESTED ACREAGE	YIELD PER ACRE	TOTAL YIELD	UNIT	PRICE PER UNIT	TOTAL
Alfalfa Hay	2011	3,280	6.50	21,320	Ton	\$225.00	\$4,797,000
	2010	3,200	6.50	20,800		\$135.00	\$2,808,000
Miscellaneous Field Crops	2011	1,750	4.00	6,820	Ton	\$225.00	\$1,534,500
	2010	1,700	4.00	6,800		\$130.00	\$884,000
Irrigated Pasture	2011	17,000	~	~	Acre	\$29.00	\$493,000
	2010	17,000	~	~		\$28.00	\$476,000
Dry Grazing	2011	208,000	~	~	Acre	\$5.25	\$1,092,000
	2010	208,000	~	~		\$5.00	\$1,040,000
<b>TOTAL FIELD CROP PRODUCTION:</b>							
					<b>2011</b>		<b>\$7,916,500</b>
					<b>2010</b>		<b>\$5,208,000</b>





MISCELLANEOUS CROP PRODUCTION				
ITEM	YEAR	HARVESTED ACREAGE	TOTAL YIELD	TOTAL
Turf	2011	116	~	\$1,111,651
	2010	195	~	\$1,613,900
Dates and other misc. Fruits	2011	40	85,000	\$207,250
	2010	30	42,000	\$168,000
<b>TOTAL MISCELLANEOUS CROP PRODUCTION</b>			<b>2011</b>	<b>\$1,318,901</b>
			<b>2010</b>	<b>\$1,781,900</b>

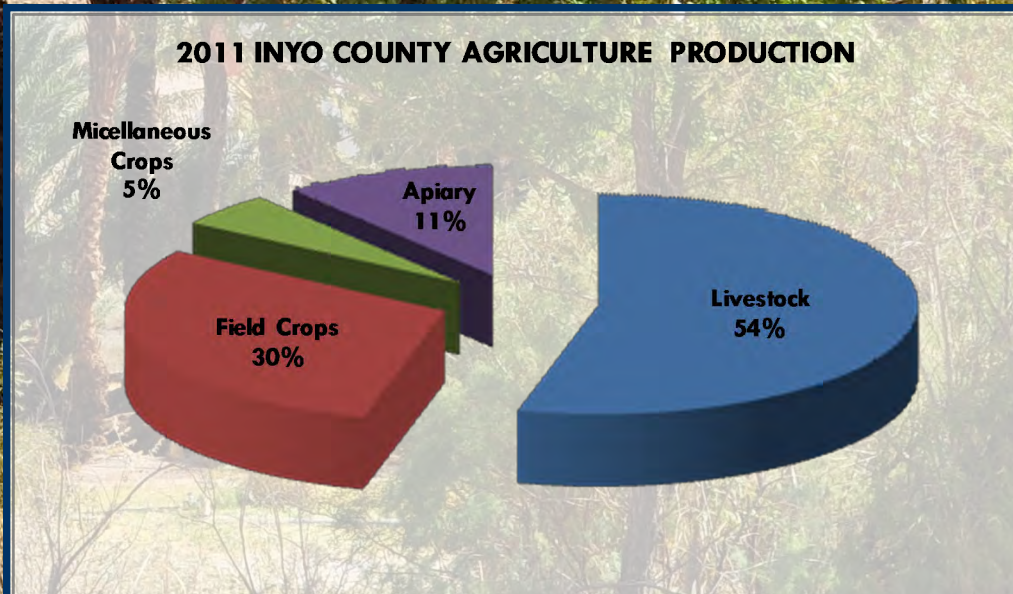
APIARY PRODUCTION					
ITEM	YEAR	PRODUCTION	UNIT	PRICE PER UNIT	TOTAL
Honey	2011	975,000	Lbs.	\$2.90	\$2,827,500
	2010	850,000		\$2.85	\$2,422,500
<b>TOTAL APIARY PRODUCTION</b>				<b>2011</b>	<b>\$2,827,500</b>
				<b>2010</b>	<b>\$2,422,500</b>



# Inyo County Summary



INYO COUNTY TOTALS		
	2010	2011
LIVESTOCK	\$12,134,370	\$14,206,655
FIELD CROPS	\$5,208,000	\$7,916,500
MISCELLANEOUS CROPS	\$1,781,900	\$1,318,901
APIARY	\$2,422,500	\$2,827,500
<b>TOTALS</b>	<b>2011</b>	<b>\$26,269,556</b>
	<b>2010</b>	<b>\$21,546,770</b>





## Livestock

LIVESTOCK						
ITEM	YEAR	HEAD	LIVEWEIGHT	UNIT	PRICE PER UNIT	TOTAL
Calves/Steers	2011	8,000	48,000	Cwt.	\$135.00	\$6,480,000
	2010	7,520	45,120		\$116.00	\$5,233,920
Calves/Heifers	2011	6,800	37,400	Cwt.	\$131.00	\$4,899,400
	2010	6,540	34,335		\$112.00	\$3,845,520
Cows	2011	2,760	30,360	Cwt.	\$100.00	\$3,036,000
	2010	2,880	31,680		\$81.00	\$2,566,080
Bulls	2011	305	4,270	Cwt.	\$95.00	\$405,650
	2010	210	2,940		\$72.00	\$211,680
Stockers (gain)	2011	22,500	~	~	~	\$9,579,375
	2010	20,600	~	~	~	\$7,498,400
Sheep and Lambs	2011	21,000	21,000	Cwt.	\$190.00	\$3,990,000
	2010	22,000	22,000		\$140.00	\$3,080,000
<b>TOTAL LIVESTOCK:</b>				<b>2011</b>	<b>\$28,390,425</b>	
				<b>2010</b>	<b>\$22,435,600</b>	





# Field Crops



FIELD CROPS							
ITEM	YEAR	HARVESTED ACREAGE	YIELD PER ACRE	TOTAL YIELD	UNIT	PRICE PER UNIT	TOTAL
Alfalfa Hay	2011	11,000	6.50	71,500	Ton	\$225.00	\$16,087,500
	2010	11,000	6.50	71,500		\$135.00	\$9,652,500
Miscellaneous Hay	2011	5,000	4.00	20,000	Ton	\$225.00	\$4,500,000
	2010	5,000	4.00	20,000		\$130.00	\$2,600,000
Irrigated Pasture	2011	55,000	~	~	Acre	\$35.00	\$1,925,000
	2010	55,000	~	~		\$29.00	\$1,595,000
Dry Grazing	2011	80,000	~	~	Acre	\$7.00	\$560,000
	2010	80,000	~	~		\$6.75	\$540,000
<b>TOTAL FIELD CROP PRODUCTION:</b>				<b>2011</b>		<b>\$23,072,500</b>	
				<b>2010</b>		<b>\$14,387,500</b>	





## Row Crop, Fruit Crop and Timber Production

ROW CROP PRODUCTION				
ITEM	YEAR	ACREAGE	TOTAL YIELD	TOTAL
Garlic	2011	220	~	\$739,200
	2010	65	~	\$245,700
Potatoes	2011	220	~	\$803,000
	2010	106	~	\$342,380
<b>TOTAL ROW CROP PRODUCTION:</b>			2011	<b>\$1,542,200</b>
			2010	<b>\$588,080</b>

FRUIT CROP PRODUCTION						
ITEM	YEAR	YIELD PER ACRE	TOTAL YIELD	UNIT	PRICE PER UNIT	TOTAL
Wine Grapes	2011	3.75	93.75	Ton	\$675.00	\$63,281
	2010	3.5	87.5		\$650.00	\$56,875
<b>TOTAL FRUIT CROP PRODUCTION:</b>				2011		<b>\$63,281</b>
				2010		<b>\$56,875</b>

TIMBER PRODUCTION			
ITEM	YEAR	TOTAL	
Timber/Firewood	2011	\$75,000	
	2010	\$40,000	
<b>TOTAL TIMBER PRODUCTION:</b>		2011	<b>\$75,000</b>
		2010	<b>\$40,000</b>



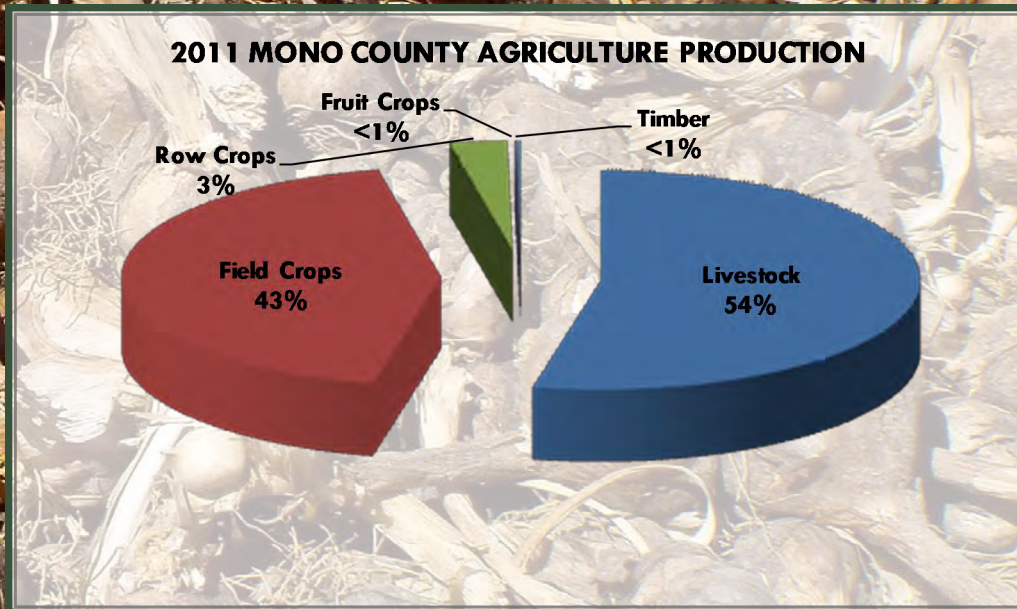
# Mono County Summary



## MONO COUNTY TOTALS

	2010	2011
LIVESTOCK	\$22,435,600	\$28,390,425
FIELD CROPS	\$14,387,500	\$23,072,500
ROW CROPS	\$588,080	\$1,542,200
FRUIT CROPS	\$56,875	\$63,281
TIMBER	\$40,000	\$75,000
<b>TOTALS</b>	<b>2011</b>	<b>\$53,143,406</b>
	<b>2010</b>	<b>\$37,508,055</b>

## 2011 MONO COUNTY AGRICULTURE PRODUCTION





# Inyo and Mono Counties

## Comparison Summary



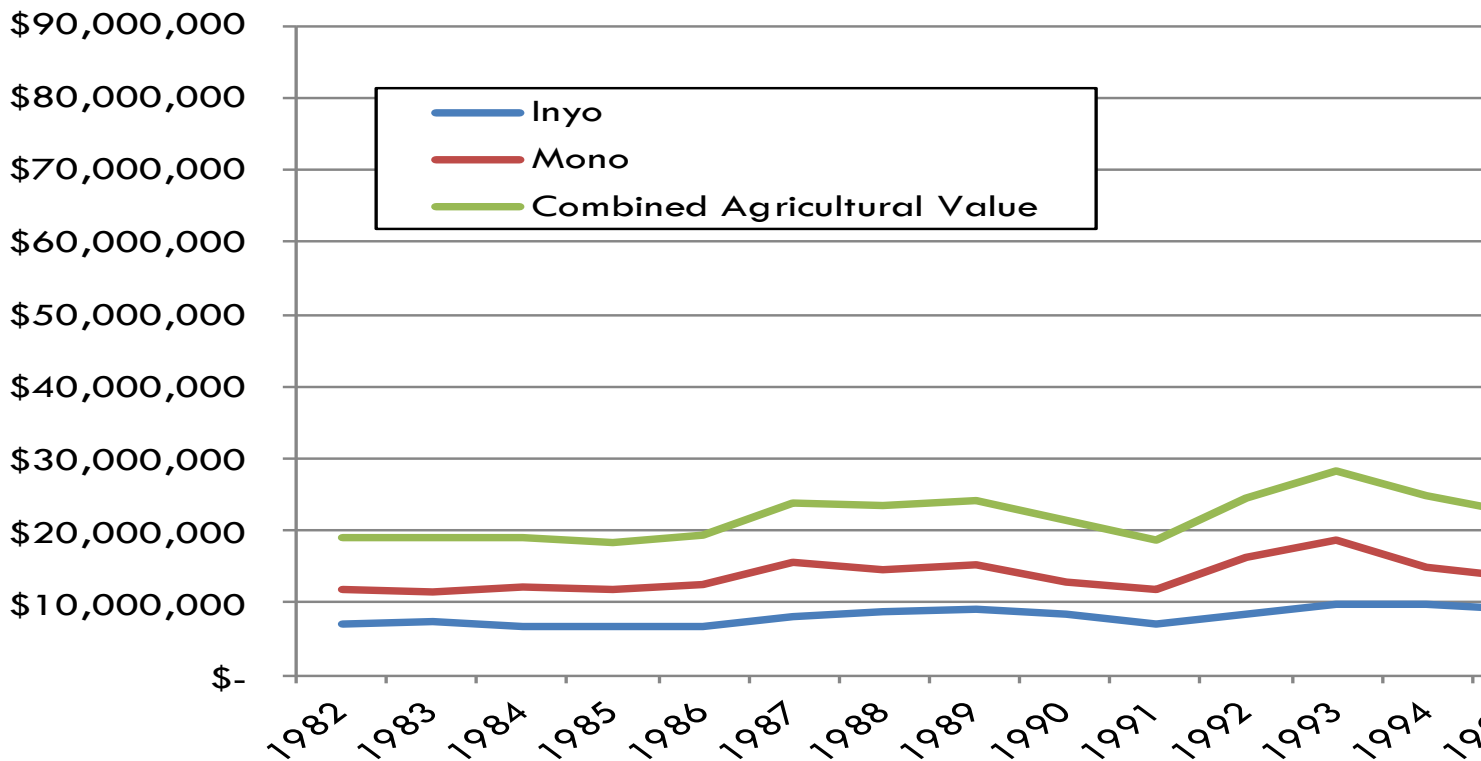
### COMPARISON SUMMARY

2007-2011

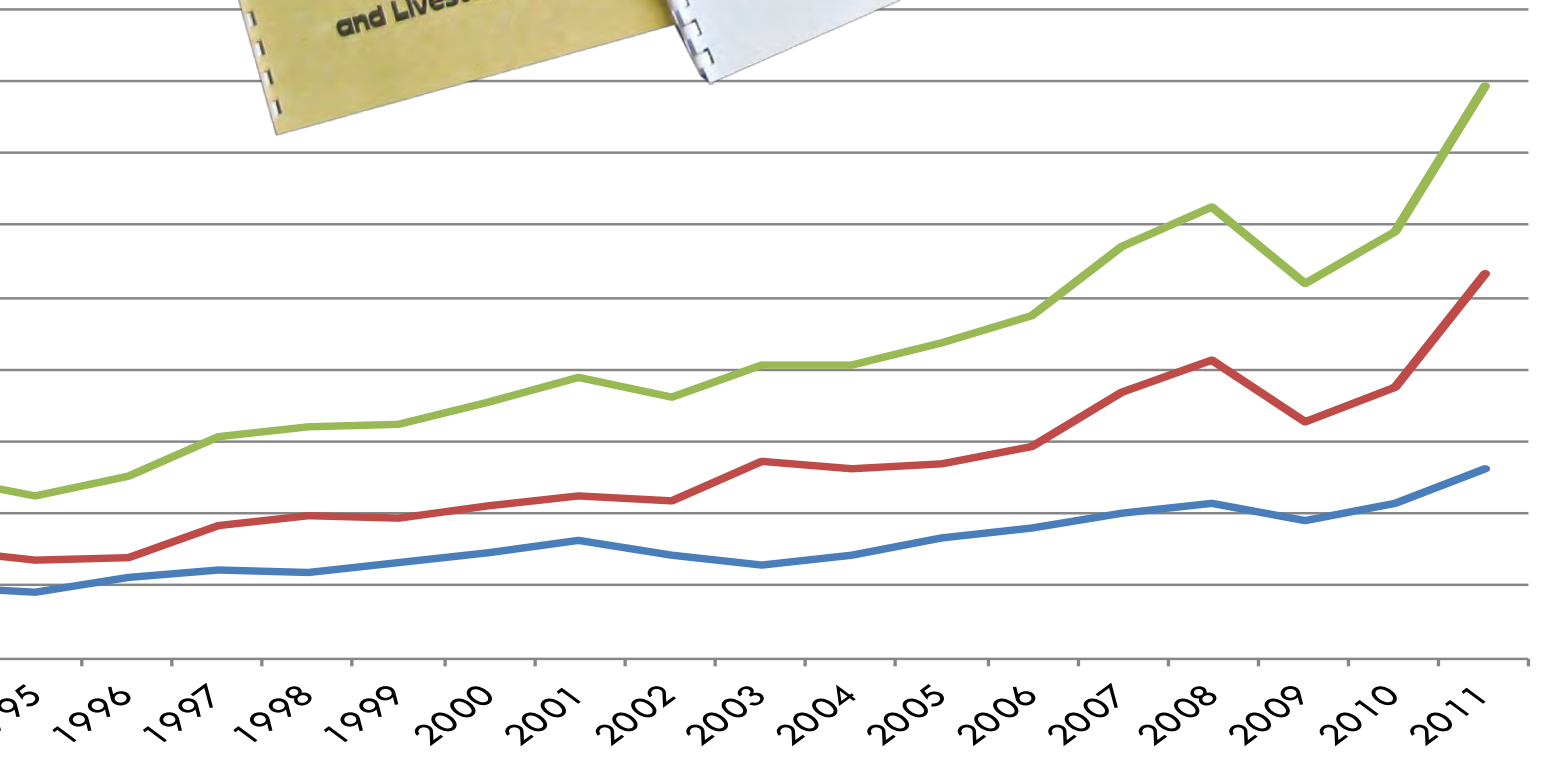
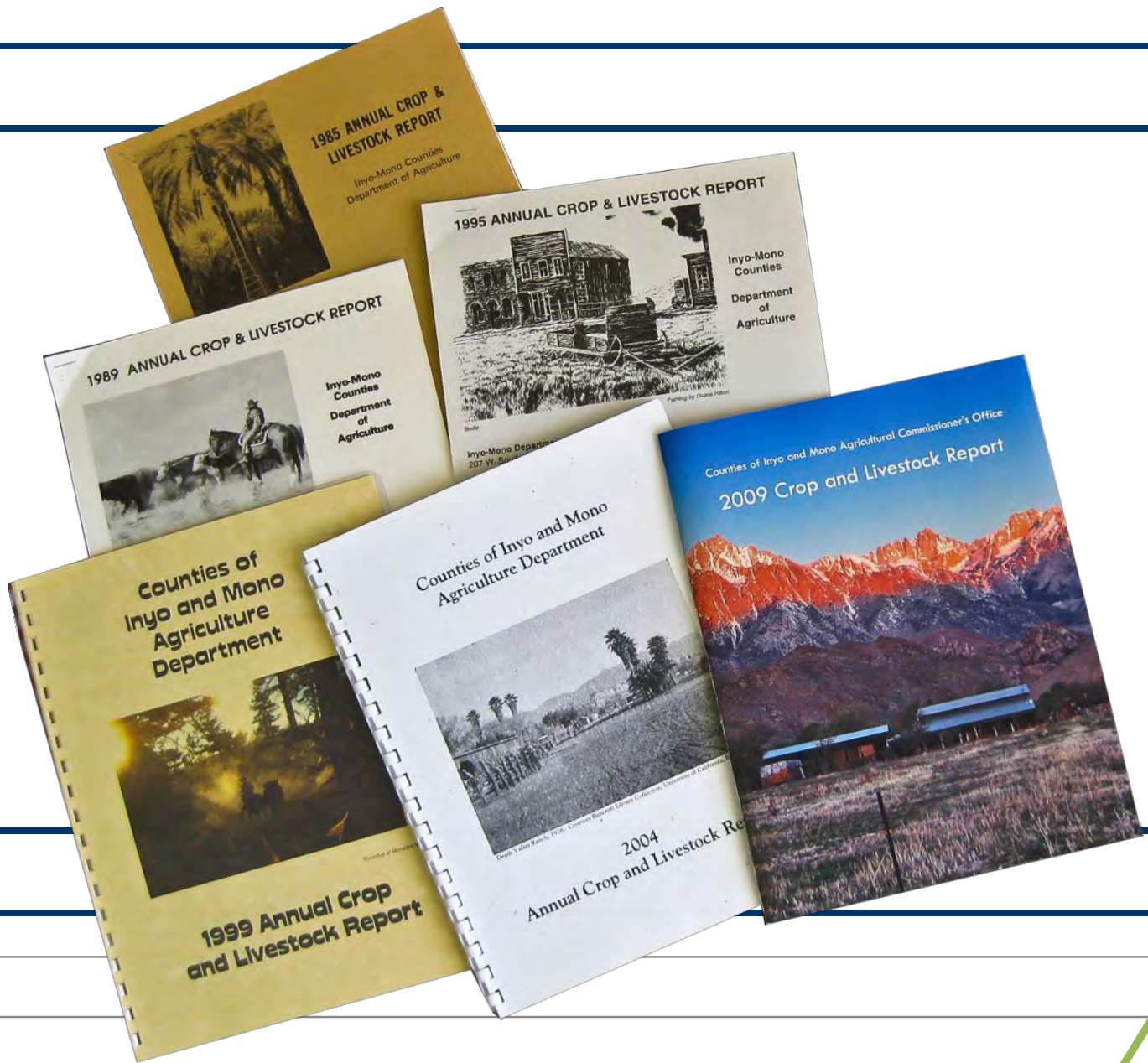


	2007	2008	2009	2010	2011
<b>INYO COUNTY TOTALS</b>	\$19,979,550	\$21,459,980	\$19,127,350	\$21,546,770	\$26,269,556
<b>MONO COUNTY TOTALS</b>	\$36,924,350	\$41,148,517	\$32,697,305	\$37,508,055	\$53,143,406
<b>COMBINED TOTALS</b>	\$56,903,900	\$62,608,497	\$51,824,655	\$59,054,825	\$79,412,962

## 30 Year Comparison









## Organic and Outreach Programs

### ORGANIC FARMING STATISTICS:

There were 5 organic farms registered in 2011.

### EASTERN SIERRA CERTIFIED FARMERS MARKET:

15 Growers participated in the 2011 Farmers Markets. Commodities sold included: basil, chives, cilantro, dill marjoram, parsley, rosemary, sage, tarragon, thyme, lavender, lemongrass, paprika, spinach, corn, eggplant, tomato, squash, cucumber, peppers, green onions, potatoes, pumpkins, onions, beets, garlic, carrots, radishes, lettuce, broccoli, kale, arugula, sweet potatoes, Swiss chard, bok choy, cabbage, Brussels sprouts, zucchini, shallots, tomatillos, grapes, apples, peaches, pears, nectarines, apricots, cherries, plums, figs, watermelon, cantaloupe, honeydew, gourds, beans, raspberries, blackberries, boysenberries, sweet peas, various bean varieties, walnuts, cut flowers, and eggs.

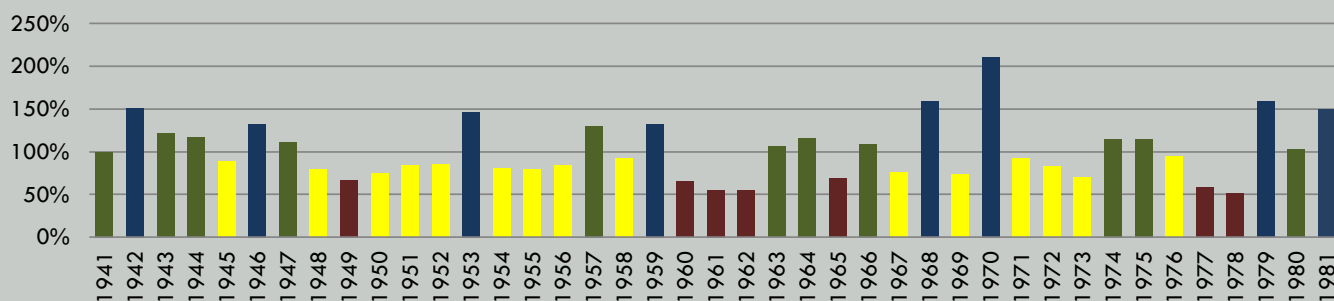
### OUTREACH PROGRAM

During 2011, the Inyo/Mono Counties' Agriculture Department sponsored:

- 3 pesticide safety seminars with 130 professional card holders and private applicators attending, to meet California state continuing education requirements;
- 5 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.

### EASTERN SIERRA RUNOFF CHART





# Sustainable Agriculture

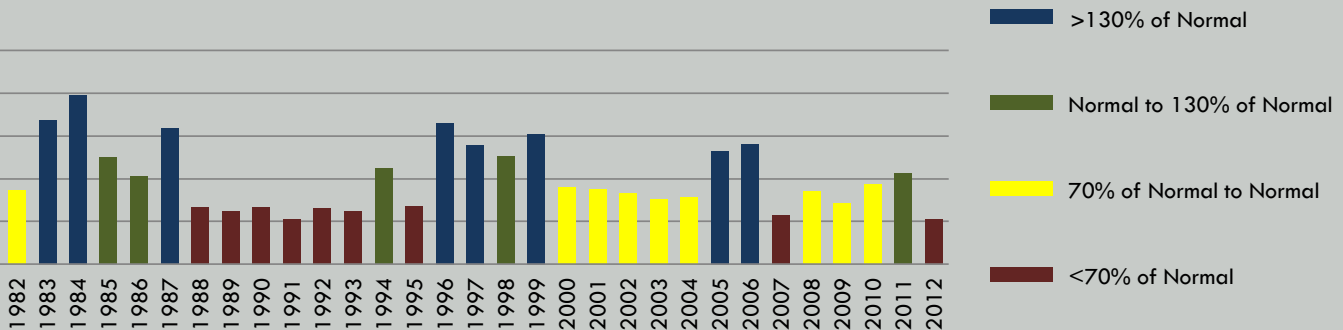
## INVASIVE PLANT TARGETS

<u>PEST</u>	<u>AGENT/MECHANISM</u>	<u>NUMBER OF SITES</u>	<u>GROSS ACRES</u>
Puncturevine	Biological Control	25 sites	~
Dalmatian Toadflax	Mechanical	1 site	220
Yellow Starthistle	Mechanical	2 sites	13
Russian Knapweed	Herbicide	11 sites	3,302
Hoary Cress	Herbicide	2 sites	3
Canada Thistle	Herbicide	20 sites	3,289
Spotted Knapweed	Herbicide	3 sites	3
Halogeton	Mechanical	19 sites	4,400
Scotch Thistle	Herbicide	8 sites	1,311
Camelthorn	Herbicide	1 site	94
Saltcedar	Biological Control	3 sites	~
Saltcedar	Herbicide	100 sites	~
Perennial Pepperweed	Herbicide	133 sites	27,299

## PEST EXCLUSION

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

14,500 Shipments Inspected





# Inyo and Mono Counties

## Weights and Measures



### DEVICE INSPECTION PROGRAM

Over 1,100 devices were inspected in 2011 to ensure accuracy within California state tolerances. These devices included:

- 893 retain fuel meters;
- 156 small retail scales;
- 35 livestock scales;
- 21 vehicle scales;
- 10 hopper scales;
- 8000 vapor and electric meters (10 year cycle).

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 1,100+ devices inspected, 31 Notice of Violations were issued. All 60 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.

### QUALITY 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.



*"Weights and measures may be ranked among the necessities of life to every individual of human society. They enter into the economical arrangements and daily concerns of every family. They are necessary to every occupation of human industry; to the distribution and security of every species of property; to every transaction of trade and commerce; to the labors of the husbandman; to the ingenuity of the artificer; to the studies of the philosopher; to the researches of the antiquarian; to the navigation of the mariner, and the marches of the soldier; to all the exchanges of peace, and all the operations of war. The knowledge of them, as in established use, is among the first elements of education, and is often learned by those who learn nothing else, not even to read and write. This knowledge is riveted in the memory by the habitual application of it to the employments of men throughout life."*

*John Quincy Adams*



# 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.



**Larvaciding** - Routine larvaciding 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.







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