Lassen County

2016 CROP & LIVESTOCK REPORT

COUNTY OF LASSEN

AGRICULTURAL COMMISSIONER/SEALER

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Karen Ross, Secretary
California Department of Food & Agriculture

The Honorable Board of Supervisors of Lassen County
Jim Chapman, Chairman, *District 2*
Bob Pyle, *District 1*
Jeff Hemphill, *District 3*
Aaron Albaugh, *District 4*
Tom Hammond, *District 5*

Pursuant to Section 2272 & Section 2279 of the California Food and Agriculture Code, I am pleased to submit the 2016 Annual Crop and Livestock Report for Lassen County.

This report lists gross production and value of products and does not reflect net income to the producer. The value of agricultural products produced in Lassen County for 2016 was $120,721,847. This is a 5% decrease in the overall value of Lassen County's agriculture. The increase in wild rice acres and saw timber production was not sufficient to offset low cattle prices and the static price of hay.

Respectfully Submitted,

Craig A. Hemphill
Agriculture Commissioner/Sealer of Weights & Measures

OUR MISSION

The Agriculture Commissioner promotes Lassen County agriculture production by protecting it from injurious pests & diseases, to ensure the safety and wholesomeness of food and other products for the consumer, and to build consumer and business confidence in the market place through the maintenance of equity.

PERSONNEL & ASSOCIATES

Craig A. Hemphill, *Agriculture Commissioner/Sealer of Weights & Measures*

Tina Hilburn, *Biologist II*

Cheryl Lauritsen, *Biologist II*

Mike Stewart, *Seasonal* Robin Skelton-Snipes, *Seasonal*

Kevin Ostmeyer, *Seasonal*

George Affonso, *USDA Wildlife Specialist*

Special thanks to all of the farmers and ranchers who provided the valuable information and photos used to compile this report.

LASSEN COUNTY'S MILLION DOLLAR CROPS

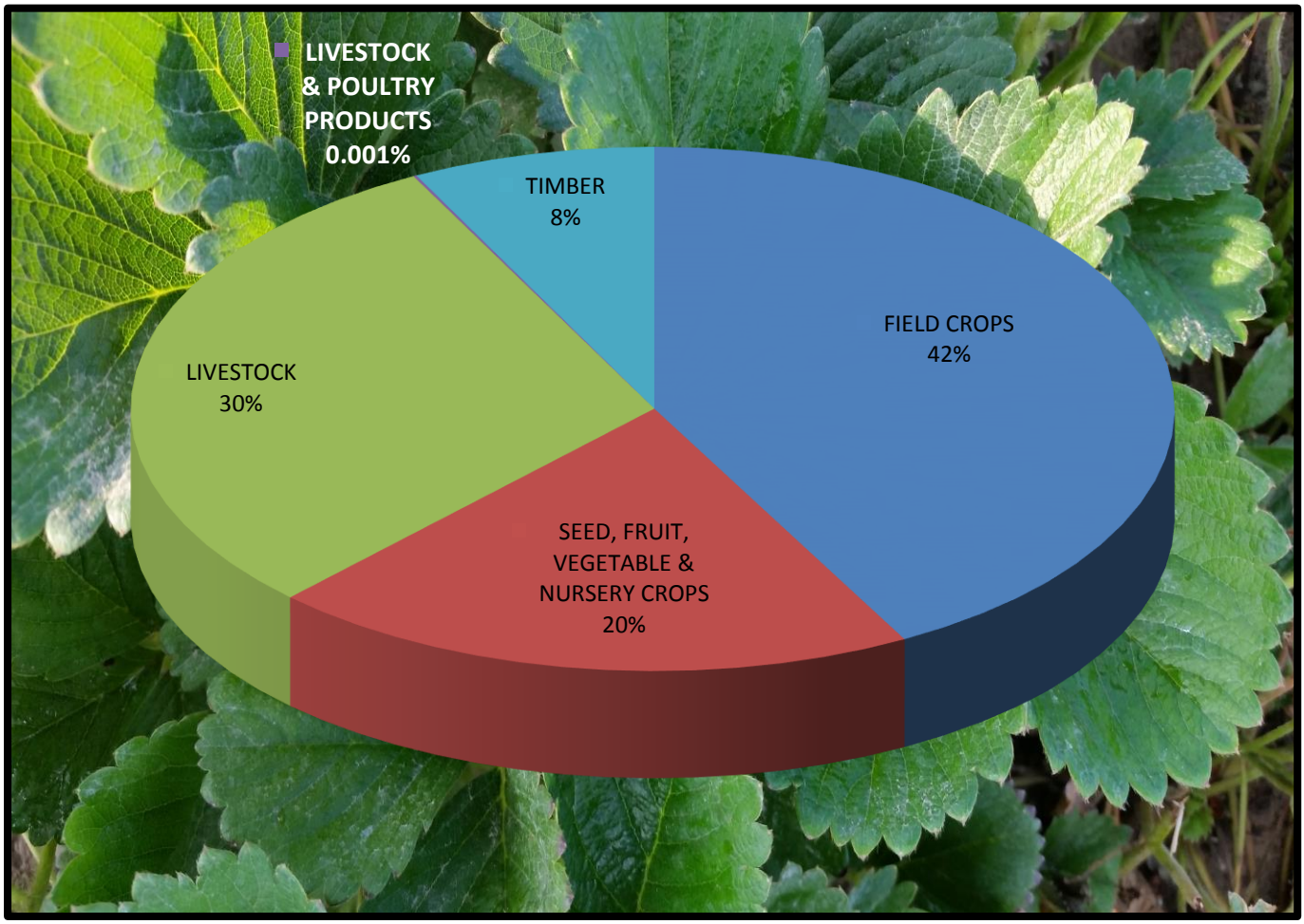
Crop	Value	2016 Ranking	2015 Ranking
All Beef Cattle	$27,242,678	1	1
Other Hay	$24,026,440	2	2
Misc. Seed, Fruit, Vegetable & Nursery Crops	$23,191,490	3	4
Alfalfa Hay	$18,964,058	4	3
Timber	$11,063,779	5	5
Irrigated Pasture	$5,520,000	6	6
Grain Hay	$3,170,876	7	7
Wild Rice	$2,790,744	8	9
Sheep and Lambs	$1,946,760	9	8
Wheat	$1,111,500	10	~

FIVE YEAR SUMMARY OF PRODUCTION VALUES

YEAR	FIELD CROPS	SEED, FRUIT, VEGETABLE & NURSERY	LIVESTOCK & POULTRY	LIVESTOCK PRODUCTS	TIMBER HARVEST	TOTAL
2016	54,273,848	25,982,234	29,253,438	129,000	11,083,367	$120,721,887
2015*	60,707,113	17,293,893	38,900,335	129,000	9,735,464	$126,765,805
2014	63,204,412	18,475,580	37,407,120	129,000	6,309,432	$125,525,544
2013**	66,773,524	18,421,542	27,347,842	129,000	11,349,943	$124,021,851
2012	52,082,620	11,378,673	25,024,594	129,000	12,997,465	$101,612,352

*2015 Timber Harvest and Total adjusted to include Christmas tree values

**2013 figures corrected for accuracy



SUMMARY OF PRODUCTION VALUES

COMMODITY GROUP	2016
Field Crops	$54,273,848
Seed, Fruit, Vegetable & Nursery	25,982,234
Livestock & Poultry	29,253,438
Livestock & Poultry Products	129,000
Timber Harvest	11,083,367
Total	$120,721,887

TOP LASSEN COUNTY CROPS

2016	COMMODITY	VALUE	2015
1	All Hay	$46,161,334	1
2	Livestock	$29,253,438	2
3	Misc. Nursery Crops	$23,191,490	4
4	Timber	$11,083,367	3
5	Pastureland	$6,750,974	5
6	Wild Rice	$2,790,744	6
7	Livestock Products	$129,000	7

10 YEAR COMPARATIVE PRODUCTION VALUES

2016	$120,721,887
*2015	$126,765,805
2014	$115,835,558
**2013	$124,550,196
2012	$101,653,576
2011	$101,712,856
2010	$74,500,023
2009	$69,091,500
2008	$91,424,832
2007	$65,633,696

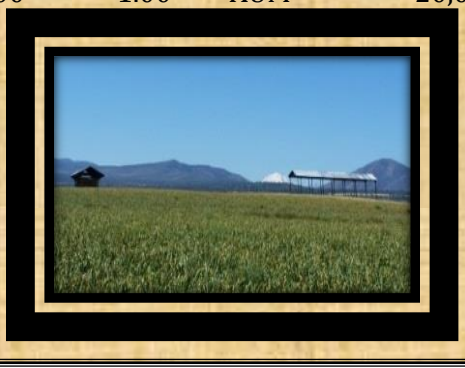
* 2015 figures corrected to include Christmas tree values

**2013 figures corrected for accuracy

FIELD CROPS

CROP	YEAR	HARVESTED ACRES	PRODUCTION PER ACRE	PRODUCTION UNIT	PRODUCTION TOTAL	VALUE PER UNIT	TOTAL VALUE
Hay, Alfalfa	**2016**	**26,378**	**4.32**	**Ton**	**133,953**	**166.42**	**$18,964,058**
	2015	28,000	4.50	Ton	126,000	154.73	$19,495,980
Hay, Grain	**2016**	**9,775**	**3.23**	**Ton**	**31,573**	**100.43**	**3,170,876**
	2015	10,000	2.92	Ton	25,000	85.00	2,125,000
***Hay, Other**	**2016**	**29,797**	**4.53**	**Ton**	**134,980**	**178.00**	**24,026,440**
	2015	29,000	5.73	Ton	166,170	190.00	31,572,300
Wheat	**2016**	**2,600**	**1.50**	**Ton**	**3,900**	**285.00**	**1,111,500**
	2015	2,600	1.96	Ton	5,096	177.42	904,132
Pasture (irrigated)	**2016**	**23,000**	**6.00**	**AUM**	**138,000**	**40.00**	**5,520,000**
	2015	23,000	6.00	AUM	138,000	40.00	5,520,000
Pasture (non-irrigated)	**2016**	**22,000**	**1.00**	**AUM**	**22,000**	**22.66**	**498,520**
	2015	22,000	1.00	AUM	22,000	17.00	374,000
Pasture (range)	**2016**	**1,291,253**	**0.10**	**AUM**	**129,125**	**2.11**	**272,454**
	2015	1,291,253	0.10	AUM	129,125	1.69	218,221
Aftermath (stubble-all)	**2016**	**20,000**	**1.00**	**AUM**	**20,000**	**23.00**	**460,000**
	2015	20,000	1.00	AUM	20,000	25.00	500,000
****Miscellaneous**	**2016**						**250,000**
	2015						
Total	**2016**						**$54,273,848**
	2015						$60,732,113

*Grass Alfalfa Mix, Timothy Hay, Orchard Grass Hay & Meadow Grass Hay
** Includes Straw, barley, oats, and corn for fodder; no figures available for 2015



SEED, FRUIT, VEGETABLE AND NURSERY CROPS

CROP	YEAR	HARVESTED ACREAGE	PRODUCTION PER ACRE	PRODUCTION UNIT	PRODUCTION TOTAL	VALUE PER UNIT	TOTAL VALUE
Wild Rice	**2016**	**1760**	**1705**	**Lbs.**	**3,000,800**	**$.93/green lb.**	**$2,790,744**
	2015	1,460	1,203	Lbs.	1,756,380	$.93/green lb.	$1,633,433
***Misc. Crops (alfalfa seed, apples, Belgian endive, garlic seed, blueberries, coriander, mint, pumpkins, seed peas, watermelon, strawberries, peaches, carrots, misc. vegetables & ornamental flowers)**	**2016**						**23,191,490**
	2015						15,660,460
Total	**2016**						**$25,982,234**
	2015						$17,293,893

* Crops with less than 3 producers

LIVESTOCK & POULTRY

COMMODITY	YEAR	# OF HEAD	LIVEWEIGHT	*UNIT	PER UNIT	TOTAL
Cows	**2016**	**6,659**	**66,590**	**Cwt.**	**$74.59**	**$4,966,948**
	2015	6,280	62,800	Cwt.	$99.00	$6,217,200
Calves	**2016**	**6,055**	**30,275**	**Cwt.**	**131.76**	**3,989,034**
	2015	5,995	29,975	Cwt.	210.00	6,294,750
Heifers	**2016**	**6,927**	**51,953**	**Cwt.**	**136.63**	**7,098,338**
	2015	6,535	49,013	Cwt.	195.00	9,557,535
Steers	**2016**	**9,419**	**70,643**	**Cwt.**	**136.63**	**9,651,953**
	2015	8,886	66,645	Cwt.	195.00	12,995,775
Bulls	**2016**	**1,177**	**20,598**	**Cwt.**	**74.59**	**1,536,405**
	2015	1,110	19,425	Cwt.	99.00	1,923,075
Sheep/Lambs	**2016**	**10,000**	**12,000**	**Cwt.**	**162.23**	**1,946,760**
	2015	10,000	12,000	Cwt.	154.00	1,848,000
Misc. Livestock (bison, pheasant, goats, chickens, alpaca, hogs)	**2016**					**64,000**
	2015					64,000
Total	**2016**					**$29,253,438**
	2015					$38,900,335

*Unit is per 100 lbs. (Cwt)

LIVESTOCK PRODUCTS

COMMODITY	YEAR	TOTAL
Includes:wool, eggs	**2016**	**$129,000**
apiary & rabbits	2015	$129,000
Total	**2016**	**$129,000**
	2015	$129,000

TIMBER HARVEST

COMMODITY	YEAR	PRODUCTION	UNIT	VALUE	TOTAL
*Saw Timber	2016	67,519	NET MBF	163.862	$11,063,779
	2015	57,822	NET MBF	167.675	$9,695,302
*Christmas Trees	2016	13,992	LINEAR FEET	1.400	$19,588
	2015	30,230	LINEAR FEET	1.330	$40,162
**Total	2016				$11,083,367
	2015				$9,735,464

*Figures provided by the Timber Tax Division, California State Board of Equalization

**Figures adjusted for inclusion of Christmas Tree information

Left: Harvesting Christmas trees in Lassen County.

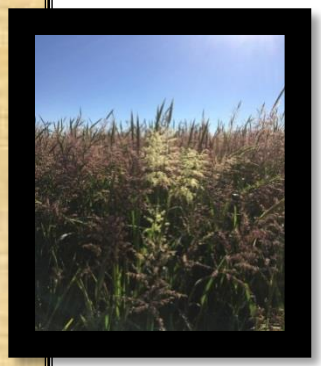
Right: Antique Fruit Growers Supply logging truck.

2016 ORGANIC FARMING STATISTICS

Alfalfa Hay	2,169.00	Acres Certified
Grain Hay	160.00	Acres Certified
Meadow Grass Hay	300.00	Acres Certified
Hay, other	266.00	Acres Certified
Rye	151.80	Acres Certified
Endive	41.40	Acres Certified
Quinoa	300.00	Acres Certified
Corriander	100.00	Acres Certified
Peas, dried	164.20	Acres Certified
Wheat	124.00	Acres Certified
Pasture & Rangeland	40,219.91	Acres Certified
Fallow Ground	343.46	Acres Certified
Wild Rice	80.00	Acres Certified
Covercrop	51.40	Acres Certified
Cattle	700.00	Certified Organic (# of head)

Total Organic Acres: 45,171.17 Total # of Cattle: 700

Total Value: $2,433,249



Top Right: Wild rice at Alturas Ranches, Madeline CA. *Bottom right*: Wild rice harvest

PEST MANAGEMENT

Pest Exclusion

Exotic Pests and/or Target Pests	Incoming plant material via UPS, Air, Truck or Mail	100 Shipments Inspected

Pest Detection

Gypsy Moth	110 Traps in Lassen County	None Detected
Japanese Beetle	2 Traps in Lassen County	None Detected
Brown Marmorated Stink Bug	4 Traps in Lassen County	None Detected

Pest Eradicated	Control Method	2016 Net Acres	2015 Net Acres
Scotch thistle	Chemical/Mechanical	176.9	123.36
Dalmatian toadflax	Chemical/Mechanical/Biological	12.91	14.22
Spotted knapweed	Chemical/Mechanical	8.94	3.51
Diffuse knapweed	Chemical	0	0
Squarrose knapweed	Chemical	3.58	3.43
Leafy spurge	Chemical	0.13	0
Rush skeletonweed	Chemical	0.13	0
Musk thistle	Chemical	0.23	0.98
Russian knapweed	Chemical/Biological	13.63	2.33
Yellow starthistle	Chemical/Mechanical	37.7	26.91
Tall whitetop	Chemical	5.29	6.54
Mediterranean sage	Chemical	12.78	16.39
Hoary cress	Chemical	0	0.68
Puncturevine	Chemical	18.23	5
Canada thistle	Chemical	6.97	0.53
Wavyleaf thistle	Chemical	0	0.55
Dyer's woad	Chemical	12.05	7.71
Sulfur cinquefoil	Chemical	0.08	0
Yellow spine wavyleaf thistle hybrid	Chemical	0.15	0
Bull thistle	Chemical	2.84	0
Klamath weed	Chemical	0.6	0

Pest management in Lassen County consists of the use of pesticides, mechanical methods and biocontrol agents – a long term strategy used to control invasive weeds. These organisms are brought in from the plant's native range where they feed on the invasive plant.

In 2010, *Mecinus janthinus Germar,* a stem-boring weevil, was found at a known Dalmatian toadflax site. It was an exciting find, as this weevil eliminates the seed producing shoots of the plant. The most amazing thing about this find is that the weevils had migrated to this site from an unknown area. Six years later, the weevil is still working hard to help in our fight against this A-rated pest.

Russian knapweed is a B-listed noxious weed within California, and Lassen is one of the counties with an established population. Unlike other invasive knapweeds found on the noxious weed list, Russian knapweed is a creeping perennial plant with an extensive root system. It can be problematic in various agronomic settings, from irrigated alfalfa and pasture, to rangeland. The organisms which are introduced are referred to as biological control species or "biocontrol" species. Certain biocontrol species have been established on Russian knapweed in other states, such as Montana and Colorado, where Russian knapweed populations are extensive.

The California Department of Food and Agriculture (CDFA) has released two Russian knapweed biocontrol species within the state: a gall midge (*Jaapiella ivannikovi)* and, recently, a gall wasp (*Aulacidea acroptilonica)*. Both insects form galls (growths) on the stems of Russian knapweed plants reducing plant vigor and, in high populations, the ability of Russian knapweed to produce as many seeds. Talking with a biologist for CDFA, populations of the gall midge failed to establish after multiple releases in the state. However, recent releases of the gall wasp have shown initial promise for establishment.

Adult gall wasps were released in the spring of 2017 at multiple Russian knapweed infestations in Lassen and Siskiyou counties. In the fall of 2017, release sites were visited to assess if the wasps had laid eggs on the stems of the knapweed plants, and if any galls were formed. Not at all sites, but at multiple sites in both counties, galls were found on the stems of some Russian knapweed plants! Next year's sites will be monitored to determine if the gall wasp population has become established. Hopefully, the insects survive the winter and continue feeding on the Russian knapweed patches well into the future. Stay tuned.

Biocontrol information provided by Thomas J. Getts, Weed ecology and Cropping Systems advisor, UC Cooperative Extension

Gall in Russian knapweed

Picture provided by Thomas J Getts

Stem boring weevil in Lassen County 2011

Lassen County Agriculture Commissioner picture