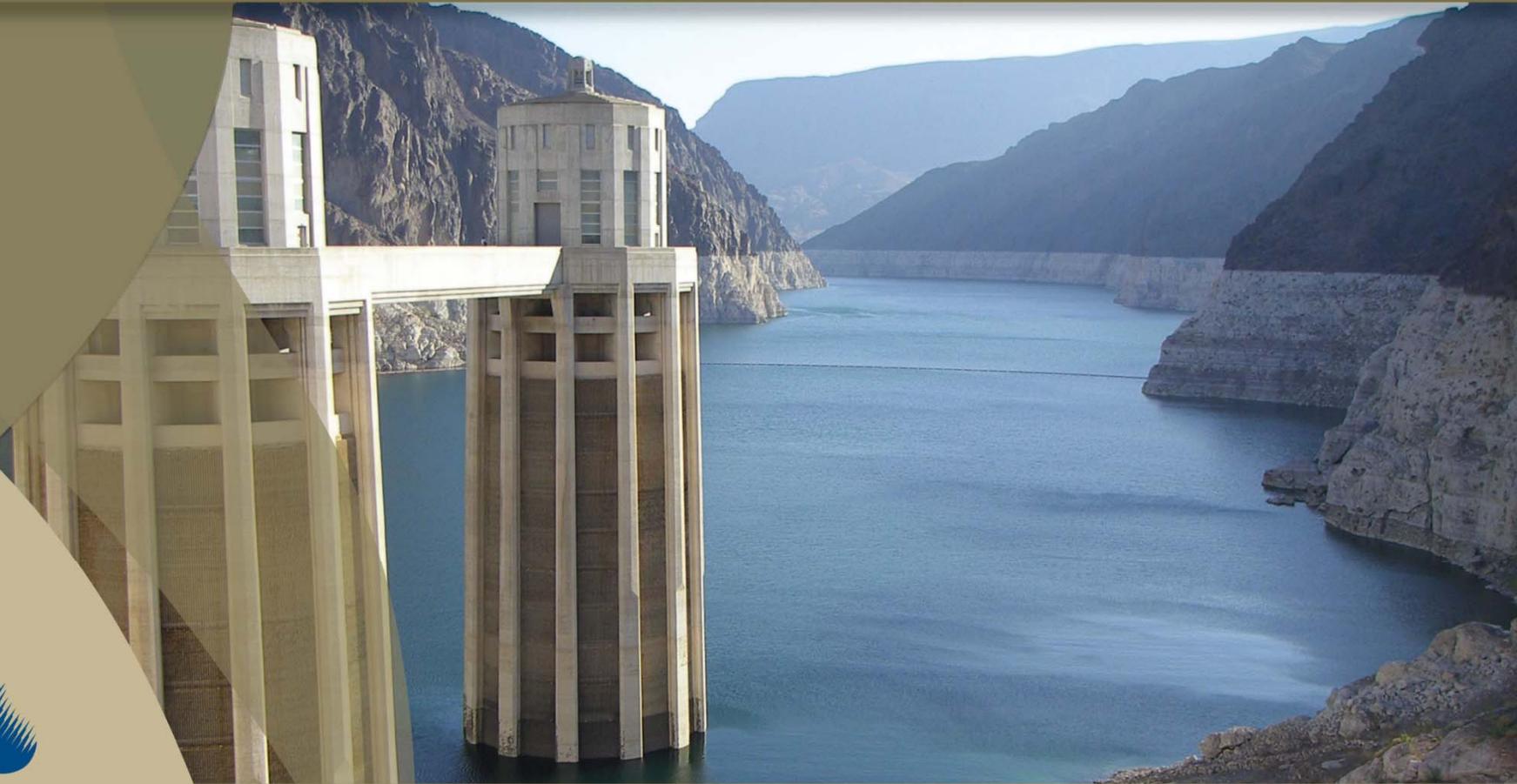


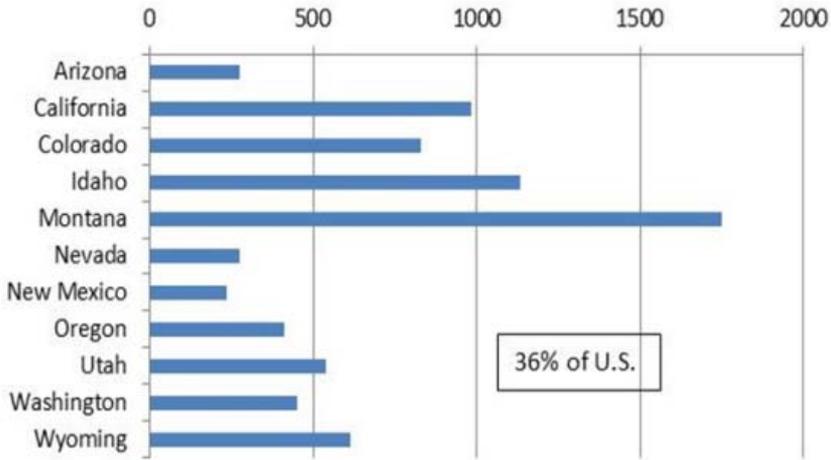
Spring, Cave, Dry Lake and Delamar Valleys



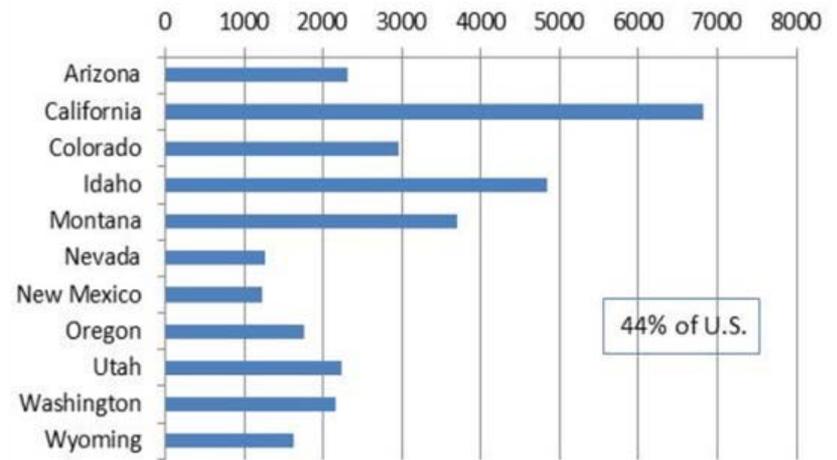
SOUTHERN NEVADA
WATER AUTHORITY

Presentation for
Peseau and Carter Testimony

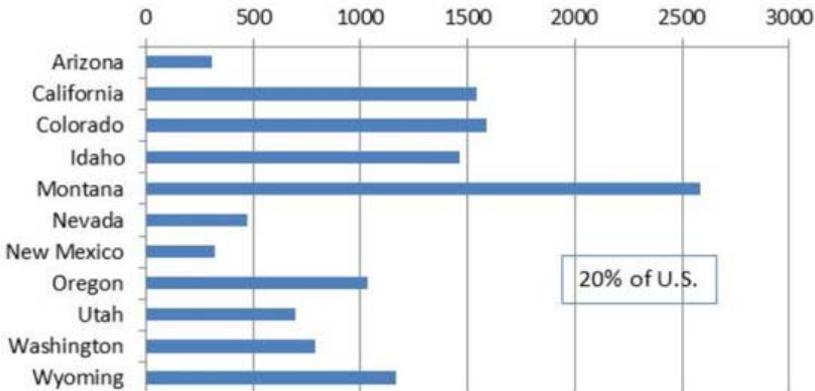
Alfalfa Hay Acreage (X 1,000)



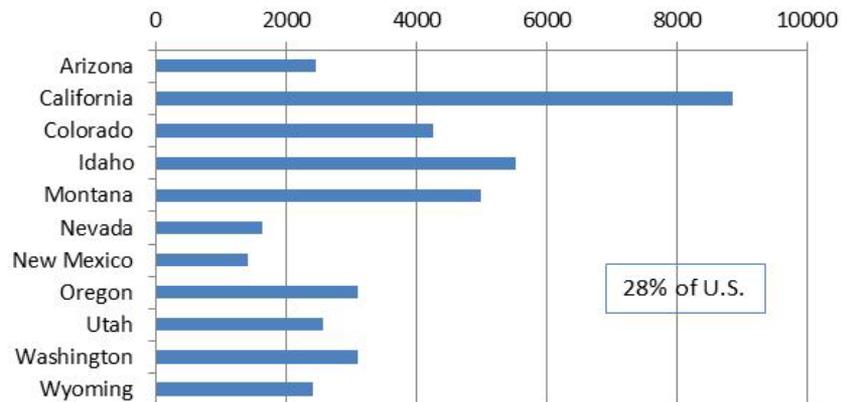
Alfalfa Hay Production (tons/year X 1,000)



All Hay Acreage (X 1,000)



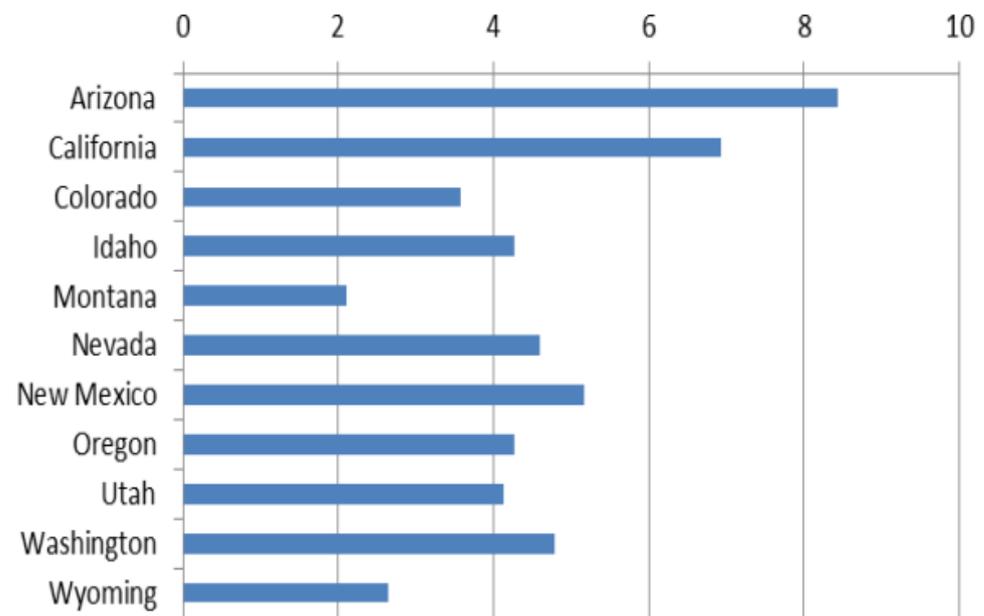
All Hay Production (tons/year x 1,000)



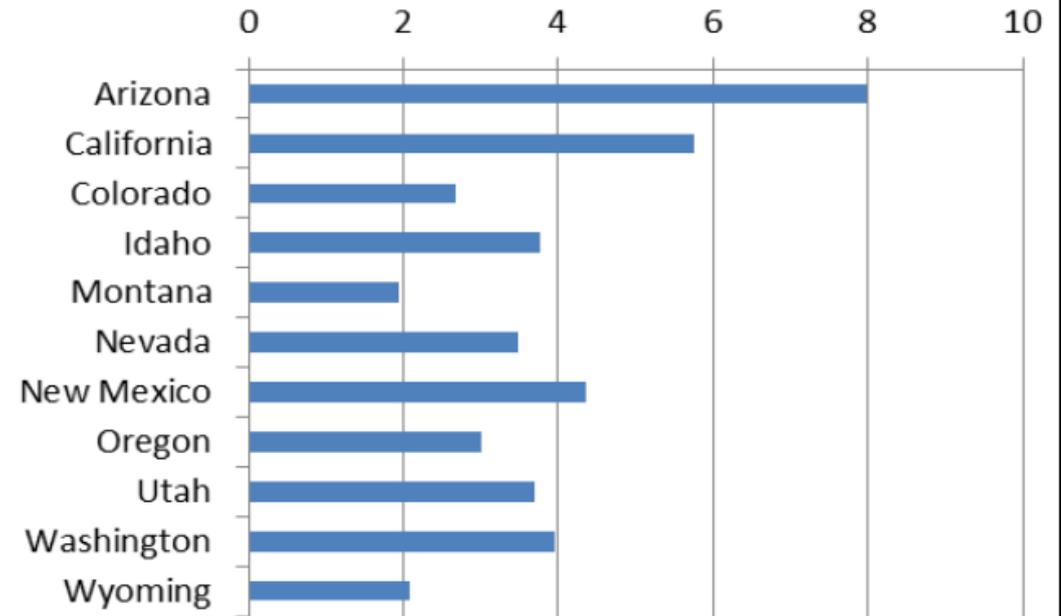
Source: USDA Statistics (2008-2010, last accessed May 25, 2011)

Figure 1
Annual Alfalfa Tonnage for the 11 Western State Group

Alfalfa Hay Yield (tons/acre)

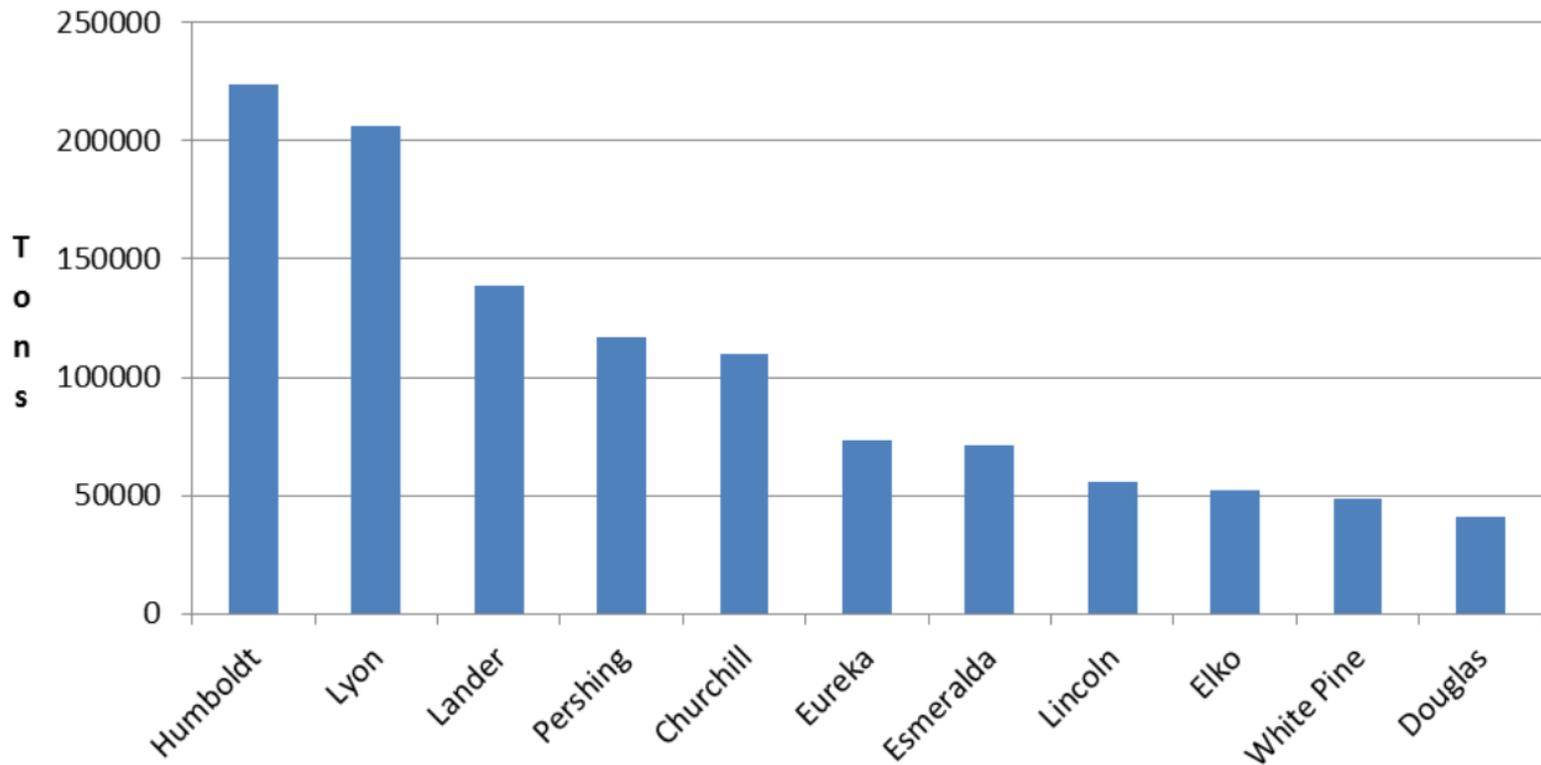


All Hay Yield (tons/acre)



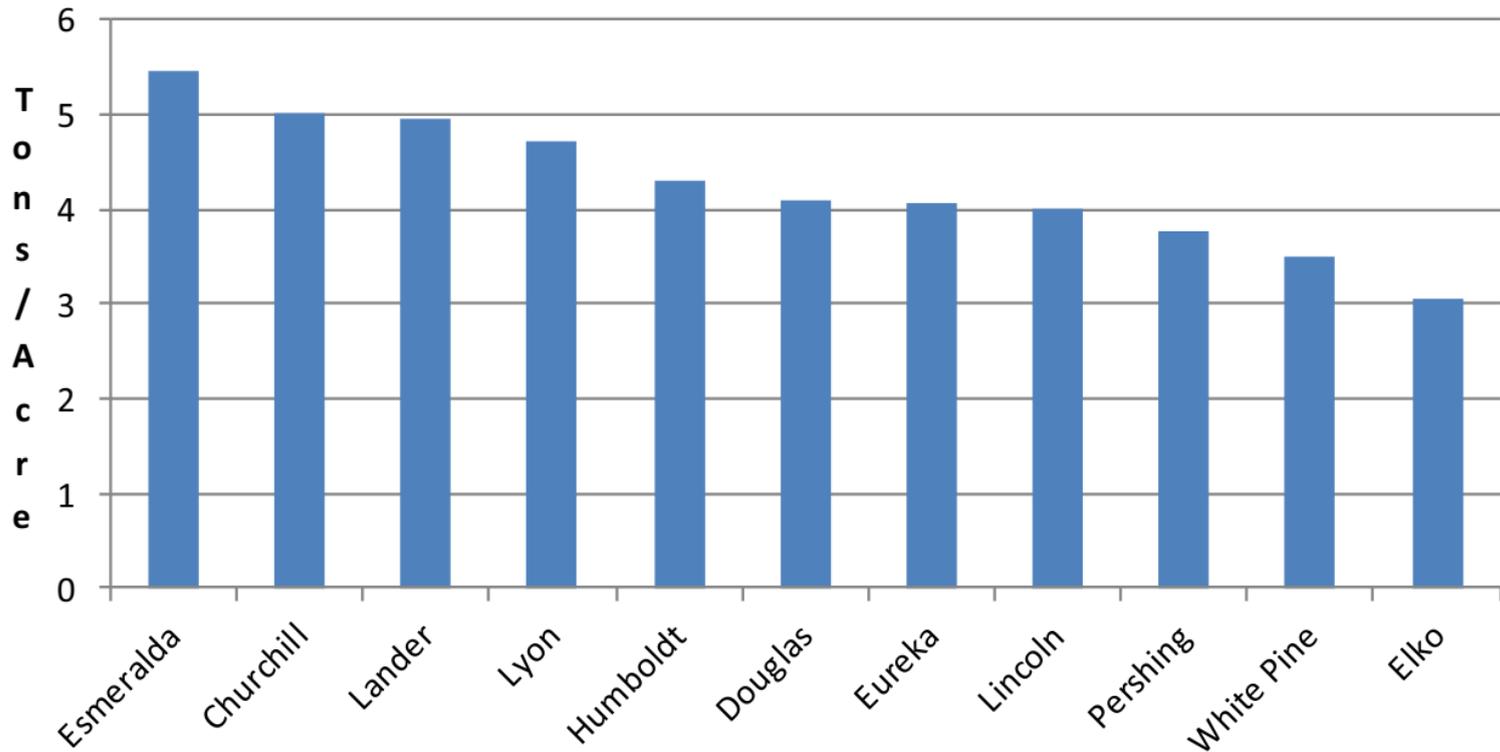
Source: USDA Statistics (2008-2010, last accessed May 25, 2011)

Figure 2
Alfalfa Hay Yield



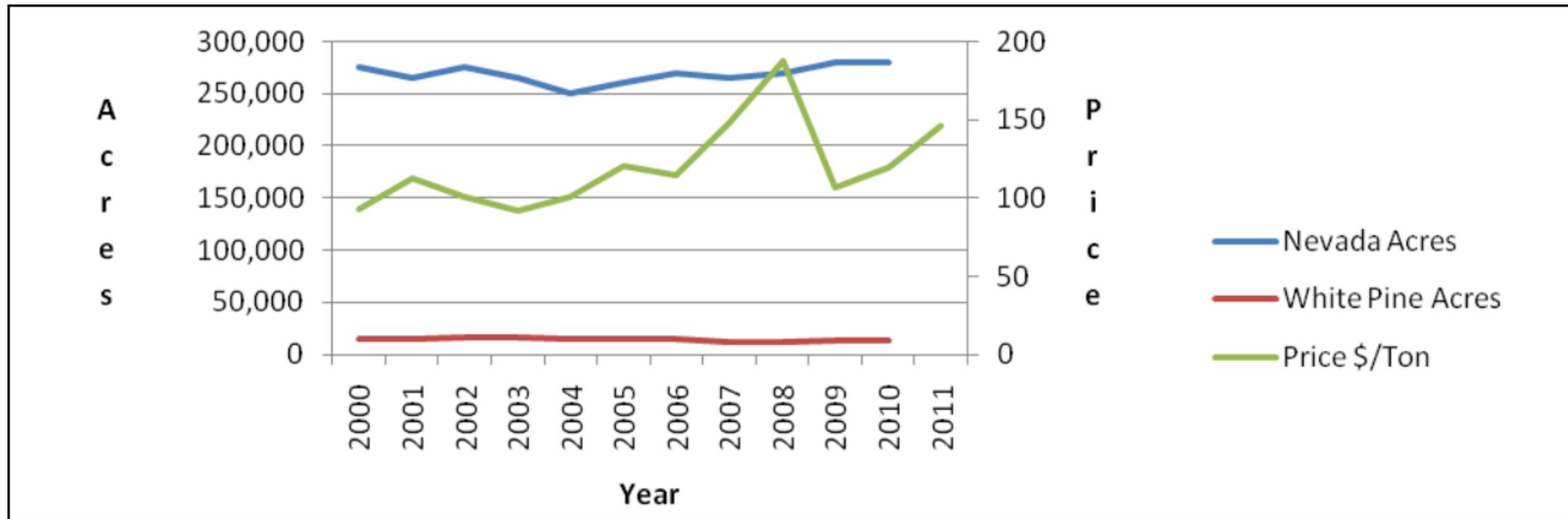
Source: USDA Statistics (2010, last accessed May 25, 2011)

Figure 7
2010 Nevada County Alfalfa Production



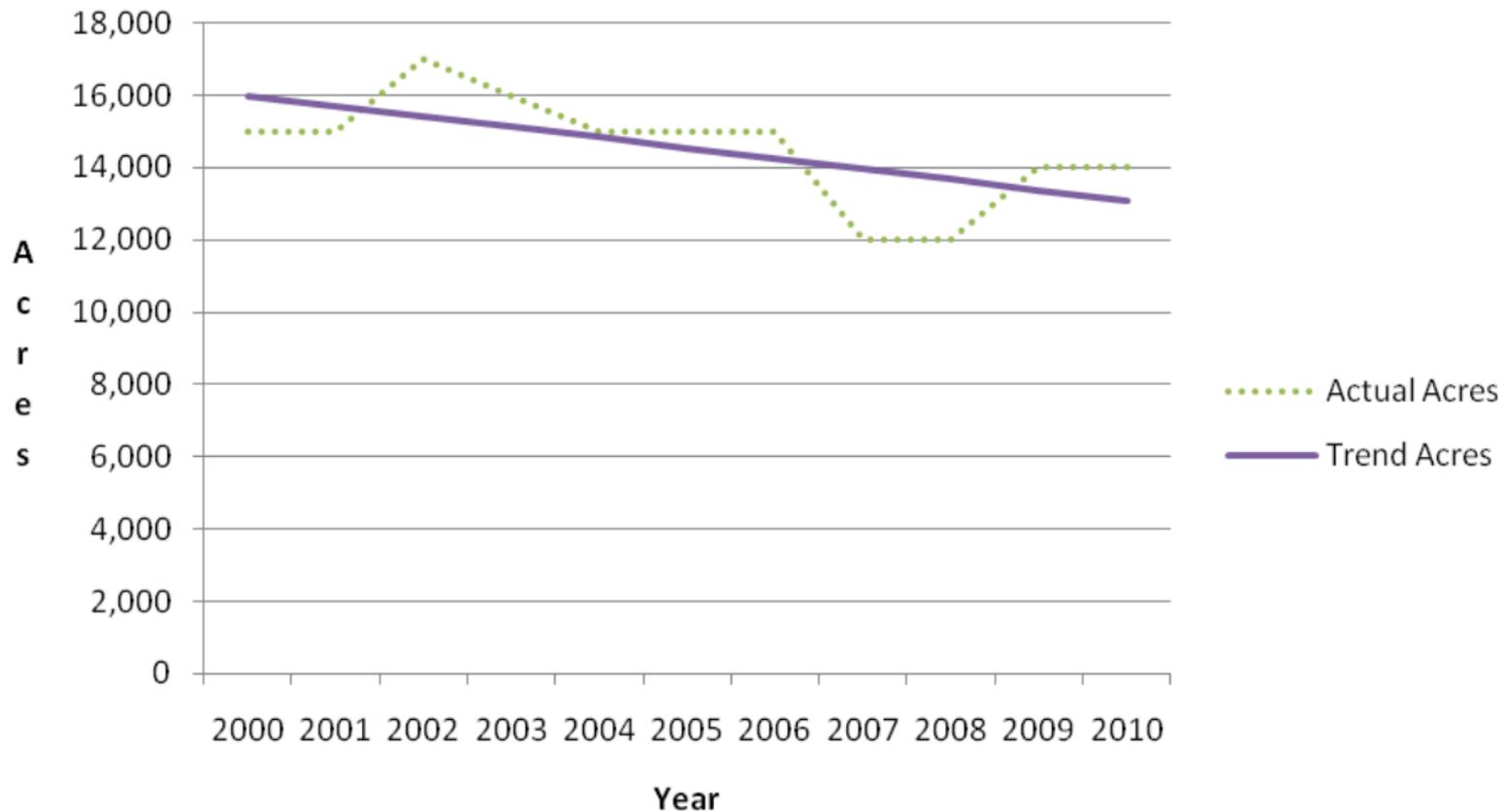
Source: USDA Statistics (2010, last accessed May 25, 2011)

Figure 8
2010 Nevada County Alfalfa Yields



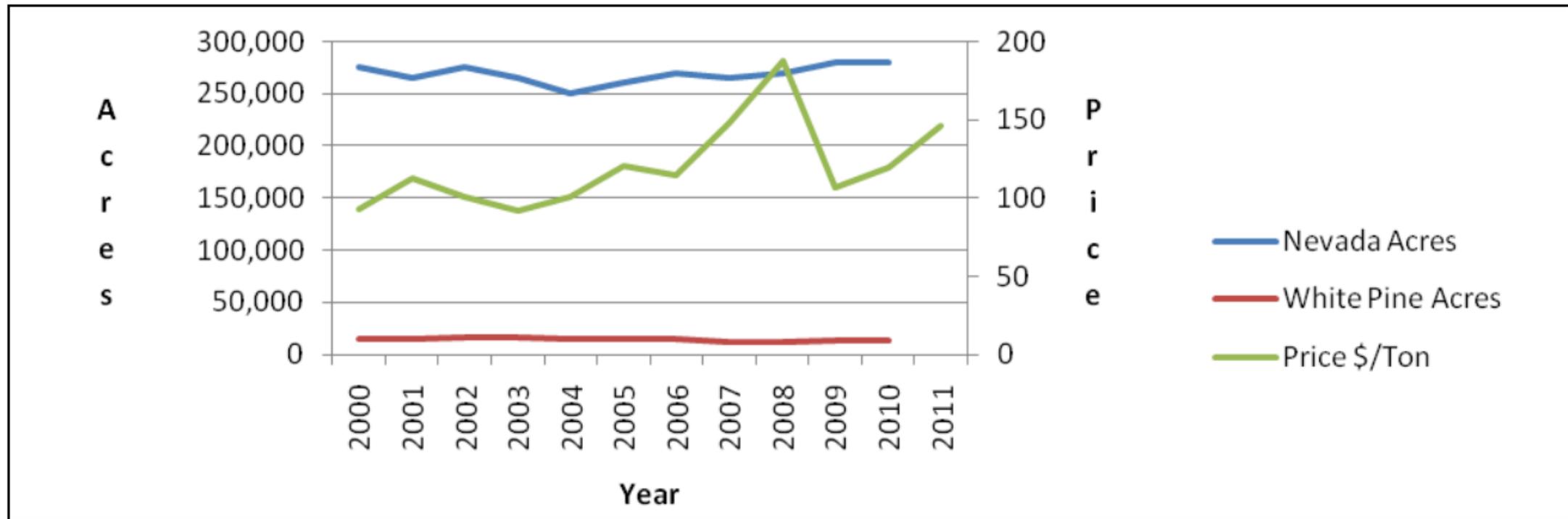
Source: Compiled by Brian Gould, Agricultural and Applied Economic, UW Madison, Prices and acreages based on USDA (2011), National Agricultural Statistics Services

Figure 9
Alfalfa Harvested and Price



Source: USDA Statistics (2000-2010, last accessed May 25, 2011)

Figure 5
White Pine County Alfalfa Acreage



Source: Compiled by Brian Gould, Agricultural and Applied Economic, UW Madison, Prices and acreages based on USDA (2011), National Agricultural Statistics Services

Figure 9
Alfalfa Harvested and Price

Humboldt County Alfalfa Hay Establishment, Production Costs and Returns, 2004

Kynda R. Curtis, Assistant Professor and Extension Specialist, Department of Resource Economics, College of Agriculture, Biotechnology and Natural Resources, University of Nevada, Reno

Melinda Sandstrom, Research Assistant, Department of Animal Biotechnology, University of Nevada, Reno

William W. Riggs, Eureka County Extension Educator, University of Nevada Cooperative Extension

Brad Shultz, Humboldt County Extension Educator, University of Nevada Cooperative Extension



INTRODUCTION

Sample costs and returns to establish and produce alfalfa hay under center pivot irrigation in Humboldt County, Nevada, are presented in this publication. This publication is intended to be a guide used to make production decisions, determine potential returns, and prepare business and marketing plans. Practices described are based on the production practices considered typical for this crop and region, but may not apply to every situation. A “*Your Farm*” column in Tables 1 & 2 is provided for your use.

ASSUMPTIONS

The following assumptions refer to Tables 1 through 4 and reflect the typical costs and returns

to establish and produce alfalfa hay stands under center pivot irrigation in Humboldt County, Nevada. The practices described are not the recommendations of the University of Nevada, Reno, but rather the production practices and materials considered typical of a well-managed farm in the region, as determined by a producer panel in November 2004. Costs, materials, and practices are not applicable to all situations, as establishment and cultural practices vary among growers within the region.

Farm. The representative farm consists of 640 acres of land, on which 500 acres is cultivated for alfalfa production and 140 acres are used for owner/employee housing, machine shop, roads,

Table 3: Investment Summary

Description	Purchase Price	Salvage Value	Useful Life (Yrs)	Annual Taxes	Annual Insurance	Annual Capital Recovery	Annual Repairs	Annual Fuel & Lube
Buildings, Improvements, and Equipment								
Shop (20X40) & Tools	\$38,000.00	\$3,800.00	25.00	\$209.00	\$139.19	\$1,368.00	\$418.00	
Irrigation System	\$480,000.00	\$48,000.00	25.00	\$2,640.00	\$1,758.24	\$17,280.00	\$5,280.00	
Owner House	\$120,000.00	\$12,000.00	50.00	\$660.00	\$439.56	\$2,160.00	\$1,320.00	
Employee House	\$30,000.00	\$3,000.00	25.00	\$165.00	\$109.89	\$1,080.00	\$330.00	
Implements	\$30,000.00	\$3,000.00	15.00	\$165.00	\$109.89	\$1,800.00	\$330.00	
Land	\$512,000.00	\$512,000.00	100.00	\$5,120.00	\$3,409.92	\$0.00	\$0.00	
Alfalfa Establishment	\$45,109.67		7.00			\$6,444.24		
Sub Total	\$1,255,109.67	\$581,800.00	NA	\$8,959.00	\$2,446.88	\$30,132.24	\$7,678.00	
Machinery and Vehicles								
160 HP Tractor	\$101,000.00	\$10,100.00	15.00	\$555.50	\$369.96	\$6,060.00	\$1,111.00	\$4,444.00
80 HP Tractor w/loader	\$52,000.00	\$5,200.00	15.00	\$286.00	\$190.48	\$3,120.00	\$572.00	\$2,288.00
80 HP Tractor	\$52,000.00	\$5,200.00	15.00	\$286.00	\$190.48	\$3,120.00	\$572.00	\$2,288.00
Harrow Bed	\$56,000.00	\$5,600.00	15.00	\$308.00	\$205.13	\$3,360.00	\$616.00	\$2,464.00
Rotary Mower	\$60,000.00	\$6,000.00	15.00	\$330.00	\$219.78	\$3,600.00	\$660.00	\$2,640.00
Rakes	\$20,000.00	\$2,000.00	15.00	\$110.00	\$73.26	\$1,200.00	\$220.00	\$880.00
Baler (1 large or 2 small)	\$52,000.00	\$5,200.00	10.00	\$286.00	\$190.48	\$4,680.00	\$572.00	\$2,288.00
3/4 Ton Pickup (2)	\$72,000.00	\$7,200.00	4.00	\$396.00	\$263.74	\$16,200.00	\$792.00	\$3,168.00
4-Wheeler	\$6,000.00	\$600.00	5.00	\$33.00	\$21.98	\$1,080.00	\$66.00	\$264.00
Sub Total	\$471,000.00	\$46,500.00	NA	\$2,590.50	\$1,703.30	\$41,340.00	\$5,181.00	\$20,724.00
Total	\$1,726,109.67	\$628,300.00	NA	\$11,549.50	\$4,150.18	\$71,472.24	\$12,859.00	\$20,724.00

Table 1: Humboldt County Alfalfa Hay Establishment Costs

	Total Units	Unit	Price/Cost Per Unit	Total Cost/Value	Total Cost/Value Per Acre	Your Farm
OPERATING COSTS						
Rodent Control	500.00	Acre	\$5.50	\$2,750.00	\$5.50	_____
Insecticide	500.00	Acre	\$10.00	\$5,000.00	\$10.00	_____
Herbicide	500.00	Acre	\$15.00	\$7,500.00	\$15.00	_____
Fertilizer	500.00	Acre	\$55.00	\$27,500.00	\$55.00	_____
Irrigation	500.00	Acre	\$65.00	\$32,500.00	\$65.00	_____
Alfalfa Seed	18.00	Lbs/Acre	\$2.75	\$24,750.00	\$49.50	_____
Roundup	2.50	Quarts/Acre	\$11.25	\$14,062.50	\$28.13	_____
Hired Labor	1.50	Annual	\$24,000.00	\$36,000.00	\$72.00	_____
Operator Labor	1.00	Annual	\$24,000.00	\$24,000.00	\$48.00	_____
Accounting & Legal	1.00	Annual	\$2,000.00	\$2,000.00	\$4.00	_____
Fuel & Lube	1.25	Annual	\$20,724.00	\$25,905.00	\$51.81	_____
Maintenance	1.00	Annual	\$12,859.00	\$12,859.00	\$25.72	_____
Utilities	1.00	Annual	\$6,000.00	\$6,000.00	\$12.00	_____
Miscellaneous	500.00	Acre	\$5.00	\$2,500.00	\$5.00	_____
Interest Operating Capital	\$178,661.20	\$	0.065	\$5,806.49	\$11.61	_____
TOTAL OPERATING COSTS				\$229,132.99	\$458.27	
OWNERSHIP COSTS						
CASH OVERHEAD COSTS						
Liability Insurance				\$1,749.00	\$3.50	_____
Office & Travel				\$3,000.00	\$6.00	_____
Annual Investment Insurance				\$4,150.18	\$8.30	_____
Annual Investment Taxes				\$11,549.50	\$23.10	_____
TOTAL CASH OVERHEAD COSTS				\$20,448.68	\$40.90	
NONCASH OVERHEAD COSTS (Capital Recovery)						
Buildings, Improvements, & Equipment				\$23,688.00	\$47.38	_____
Machinery & Vehicles				\$41,340.00	\$82.68	_____
TOTAL NONCASH OVERHEAD COSTS				\$65,028.00	\$130.06	
TOTAL OWNERSHIP COSTS				\$85,476.68	\$170.95	
TOTAL COSTS				\$314,609.67	\$629.22	
YEAR ONE INCOME						
Alfalfa Hay	5.50	Tons	\$98.00	\$269,500.00	\$539.00	_____
TOTAL GROSS INCOME				\$269,500.00	\$539.00	
TOTAL ESTABLISHMENT INVESTMENT				\$45,109.67	\$90.22	

Table 2: Humboldt County Alfalfa Hay Production Costs and Returns

	Total Units	Unit	Price/Cost Per Unit	Total Cost/Value	Total Cost/Value Per Acre	Your Farm
GROSS INCOME						
Alfalfa Hay	5.50	Tons	\$98.00	\$269,500.00	\$539.00	
TOTAL GROSS INCOME				\$269,500.00	\$539.00	
OPERATING COSTS						
Rodent Control	500.00	Acre	\$5.50	\$2,750.00	\$5.50	
Insecticide	500.00	Acre	\$15.00	\$7,500.00	\$15.00	
Herbicide	500.00	Acre	\$22.00	\$11,000.00	\$22.00	
Fertilizer	500.00	Acre	\$55.00	\$27,500.00	\$55.00	
Irrigation	500.00	Acre	\$65.00	\$32,500.00	\$65.00	
Hired Labor	1.50	Annual	\$24,000.00	\$36,000.00	\$72.00	
Operator Labor	1.00	Annual	\$24,000.00	\$24,000.00	\$48.00	
Accounting & Legal	1.00	Annual	\$2,000.00	\$2,000.00	\$4.00	
Fuel & Lube	1.00	Annual	\$20,724.00	\$20,724.00	\$41.45	
Maintenance	1.00	Annual	\$12,859.00	\$12,859.00	\$25.72	
Utilities	1.00	Annual	\$6,000.00	\$6,000.00	\$12.00	
Miscellaneous	500.00	Acre	\$5.00	\$2,500.00	\$5.00	
Interest Operating Capital	\$148,266.40	\$	0.065	\$4,818.66	\$9.64	
TOTAL OPERATING COSTS				\$190,151.66	\$380.30	
INCOME ABOVE OPERATING COSTS				\$79,348.34	\$158.70	
OWNERSHIP COSTS						
CASH OVERHEAD COSTS						
Liability Insurance				\$1,749.00	\$3.50	
Office & Travel				\$3,000.00	\$6.00	
Annual Investment Insurance				\$4,150.18	\$8.30	
Annual Investment Taxes				\$11,549.50	\$23.10	
TOTAL CASH OVERHEAD COSTS				\$20,448.68	\$40.90	
NONCASH OVERHEAD COSTS (Capital Recovery)						
Buildings, Improvements, & Equipment				\$30,132.24	\$60.26	
Machinery & Vehicles				\$41,340.00	\$82.68	
TOTAL NONCASH OVERHEAD COSTS				\$71,472.24	\$142.94	
TOTAL OWNERSHIP COSTS				\$91,920.92	\$183.84	
TOTAL COSTS				\$282,072.58	\$564.15	
NET PROJECTED RETURNS				-\$12,572.58	-\$25.15	

Table 1
Net Returns per Acre above Total Costs for Alfalfa Hay

Price	Yield						
	Tons/Acre						
\$/ton	3	3.5	4	4.5	5	5.5	6
\$85.00	(\$309.14)	(\$266.64)	(\$224.14)	(\$181.64)	(\$139.14)	(\$96.64)	(\$54.14)
\$95.00	(\$279.14)	(\$231.64)	(\$184.14)	(\$136.64)	(\$89.14)	(\$41.64)	\$5.86
\$105.00	(\$249.14)	(\$196.64)	(\$144.14)	(\$91.64)	(\$39.14)	\$13.36	\$65.86
\$115.00	(\$219.14)	(\$161.64)	(\$104.14)	(\$46.64)	\$10.86	\$68.36	\$125.86
\$125.00	(\$189.14)	(\$126.64)	(\$64.14)	(\$1.64)	\$60.86	\$123.36	\$185.86
\$135.00	(\$159.14)	(\$91.64)	(\$24.14)	\$43.36	\$110.86	\$178.36	\$245.86
\$145.00	(\$129.14)	(\$56.64)	\$15.86	\$88.36	\$160.86	\$233.36	\$305.86
\$155.00	(\$99.14)	(\$21.64)	\$55.86	\$133.36	\$210.86	\$288.36	\$365.86
\$165.00	(\$69.14)	\$13.36	\$95.86	\$178.36	\$260.86	\$343.36	\$425.86
\$175.00	(\$39.14)	\$48.36	\$135.86	\$223.36	\$310.86	\$398.36	\$485.86
\$185.00	(\$9.14)	\$83.36	\$175.86	\$268.36	\$360.86	\$453.36	\$545.86
\$195.00	\$20.86	\$118.36	\$215.86	\$313.36	\$410.86	\$508.36	\$605.86
\$205.00	\$50.86	\$153.36	\$255.86	\$358.36	\$460.86	\$563.36	\$665.86

Source: Table matrix generated from the cost estimates in the UNR studies for alfalfa and cow-calf operations. SNWA Exhibit 103

Table 2 Dairy Long-Term Projections

Item	Units	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Milk Production and Marketings													
Number of cows	Thousand	9,201	9,115	9,130	9,095	9,070	9,045	9,025	9,005	8,990	8,970	8,955	8,940
Milk per cow	Pounds	20,576	21,160	21,425	21,780	22,180	22,600	22,990	23,425	23,735	24,105	24,480	24,950
Milk production	Bil. lbs.	189.3	192.8	195.6	198.1	201.2	204.4	207.5	210.9	213.4	216.2	219.2	223.1
Farm use	Bil. lbs.	1.0	1.0	1.0	1.0	1.0	0.9	0.9	0.9	0.9	0.8	0.8	0.8
Marketings	Bil. lbs.	188.3	191.9	194.6	197.1	200.2	203.5	206.6	210.0	212.5	215.4	218.4	222.3
Supply and Use, Milkfat Basis													
Beginning commercial stocks	Bil. lbs.	10.1	11.3	10.1	10.6	10.9	11.1	11.1	10.9	10.5	10.0	9.6	9.3
Marketings	Bil. lbs.	188.3	191.9	194.6	197.1	200.2	203.5	206.6	210.0	212.5	215.4	218.4	222.3
Imports	Bil. lbs.	5.6	4.6	4.1	4.3	4.4	4.5	4.6	4.7	4.8	4.9	5.1	5.2
Commercial supply	Bil. lbs.	204.0	207.8	208.9	212.0	215.5	219.1	222.3	225.6	227.8	230.3	233.1	236.8
Domestic commercial use ^a	Bil. lbs.	187.3	189.7	192.1	194.9	197.6	200.4	203.3	206.6	208.8	211.1	213.7	216.9
Commercial exports	Bil. lbs.	4.5	7.7	6.2	6.2	6.8	7.6	8.1	8.5	9.0	9.6	10.1	10.8
Ending commercial stocks	Bil. lbs.	11.3	10.1	10.6	10.9	11.1	11.1	10.9	10.5	10.0	9.6	9.3	9.1
Total utilization	Bil. lbs.	203.1	207.5	208.9	212.0	215.5	219.1	222.3	225.6	227.8	230.3	233.1	236.8
CCT net removals ^b	Bil. lbs.	0.7	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Supply and Use, Skim Solids Basis													
Beginning commercial stocks	Bil. lbs.	10.9	11.3	11.8	11.5	11.1	10.9	10.7	10.6	10.5	10.5	10.5	10.6
Marketings	Bil. lbs.	188.3	191.9	194.6	197.1	200.2	203.5	206.6	210.0	212.5	215.4	218.4	222.3
Imports	Bil. lbs.	5.5	5.1	4.9	5.1	5.3	5.5	5.7	5.9	6.1	6.4	6.6	6.9
Commercial supply	Bil. lbs.	204.7	208.2	211.3	213.7	216.6	219.9	223.0	226.5	229.1	232.3	235.5	239.8
Domestic commercial use ^a	Bil. lbs.	168.6	167.0	170.3	172.5	174.8	177.5	180.3	183.3	185.5	188.0	190.5	193.8
Commercial exports	Bil. lbs.	22.4	29.8	29.5	30.1	30.9	31.7	32.1	32.7	33.1	33.8	34.4	35.3
Ending commercial stocks	Bil. lbs.	11.3	11.8	11.5	11.1	10.9	10.7	10.6	10.5	10.5	10.5	10.6	10.7
Total utilization	Bil. lbs.	202.3	208.6	211.3	213.7	216.6	219.9	223.0	226.5	229.1	232.3	235.5	239.8
CCT net removals ^b	Bil. lbs.	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prices													
All milk	\$/cwt	12.83	16.35	16.40	16.95	17.10	17.30	17.45	17.70	17.90	18.20	18.50	18.70

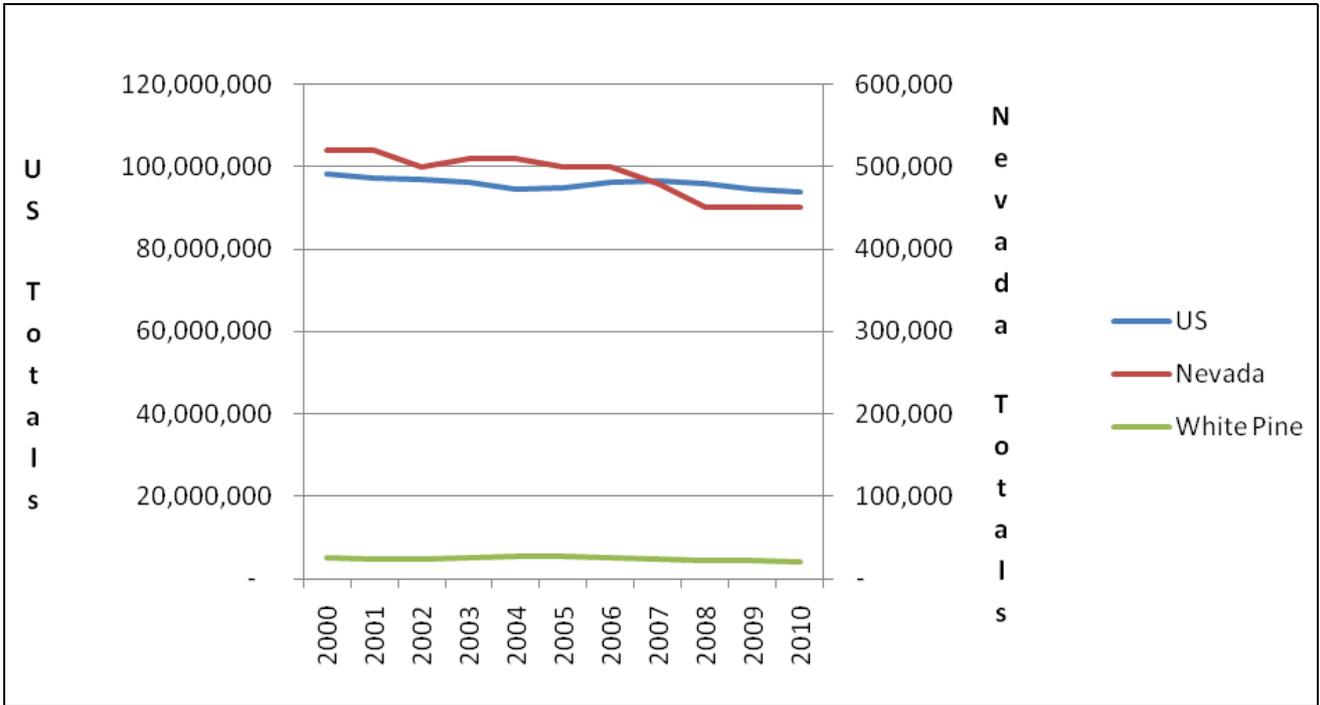
Dairy projections were completed in November 2010.

CCC is the Commodity Credit Corporation, U.S. Department of Agriculture.

Totals may not add due to rounding.

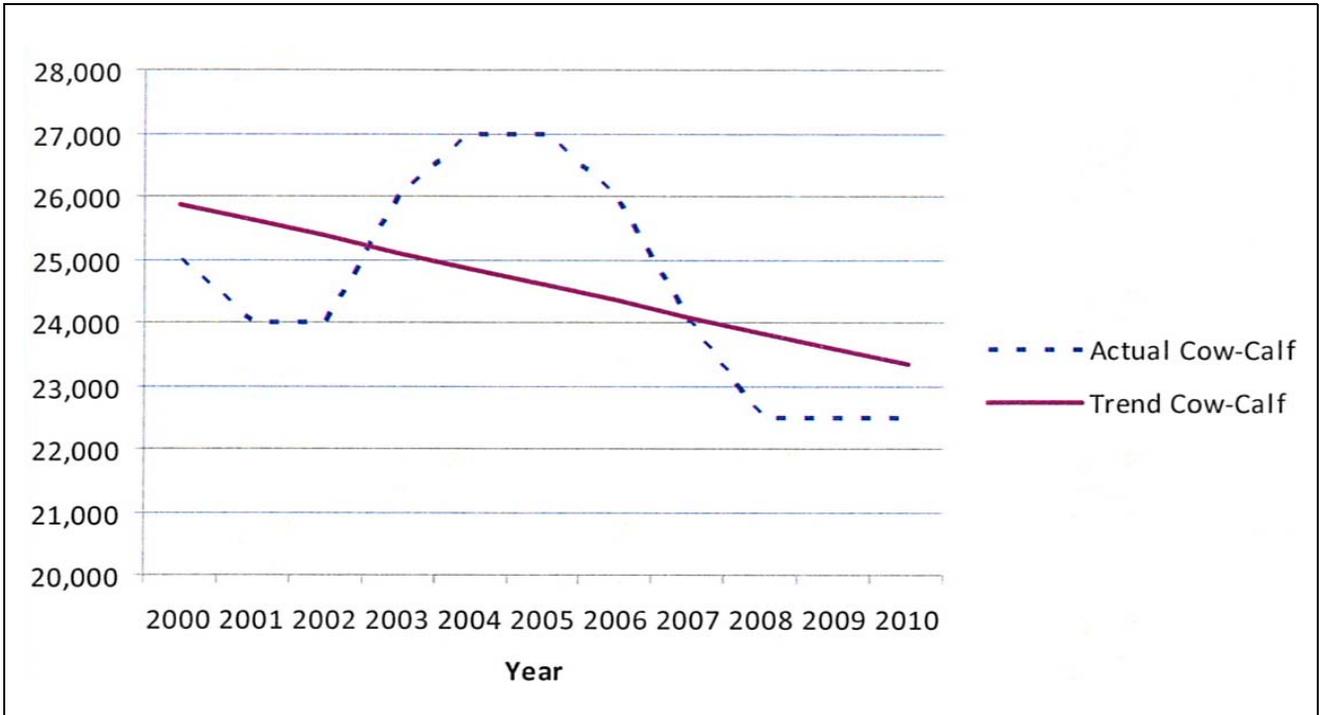
^aDomestic commercial use is adjusted for the Barter Program.

^bIncludes products exported under the Dairy Export Incentive Program.



Source: USDA Statistics (2000-2010, last accessed May 25, 2011)

Figure 10
Cow Calf Inventory



Source: USDA Statistics (2000-2010, last accessed May 25, 2011).

Figure 11
White Pine County Cow-Calf Inventory

Table 1: White Pine County 500 Cow-Calf Production Costs and Returns

Description	Weight Per Animal	Unit of Measure	Total Units	Price/Cost Per Unit	Total Value	Value/Cost Per Head	Your Ranch
GROSS INCOME							
Cull Cows	1100.00	lbs	90.00	\$0.48	\$47,520.00	\$95.04	_____
Cull Bulls	1600.00	lbs	6.00	\$0.65	\$6,240.00	\$12.48	_____
Yearling Replacements	0.00	lbs	0.00	\$0.80	\$0.00	\$0.00	_____
Heifer Calves	425.00	lbs	217.00	\$1.20	\$110,670.00	\$221.34	_____
Steer Calves	450.00	lbs	216.00	\$1.28	\$124,416.00	\$248.83	_____
TOTAL INCOME					\$288,846.00	\$577.69	
OPERATING COSTS							
Aftermath Grazing		Head	500.00	\$12.00	\$6,000.00	\$12.00	_____
Grain		Ton	8.50	\$120.00	\$1,020.00	\$2.04	_____
Alfalfa Hay		Ton	1400.00	\$70.00	\$98,000.00	\$196.00	_____
Federal Grazing (BLM)		AUM	3179.00	\$1.43	\$4,545.36	\$9.09	_____
Horse (Shoeing, Vet, Feed, etc.)		Head	15.00	\$360.00	\$5,400.00	\$10.80	_____
Veterinary/Medical		Head	500.00	\$9.00	\$4,500.00	\$9.00	_____
Marketing (Brand, Video, Commission)		Head	529.00	\$9.33	\$5,776.92	\$11.55	_____
Checkoff		Head	529.00	\$1.00	\$529.00	\$1.06	_____
Salt & Minerals		Head	500.00	\$5.50	\$2,750.00	\$5.50	_____
Hired Labor		Annual	1.50	\$18,000.00	\$20,250.00	\$40.50	_____
Operator Labor		Monthly	12.00	\$2,000.00	\$24,000.00	\$48.00	_____
Accounting & Legal Fees		\$	1.00	\$3,000.00	\$3,000.00	\$6.00	_____
Maintenance (Buildings, Vehicles, etc.)		\$	1.00	\$16,507.00	\$16,507.00	\$33.01	_____
Fuel & Lube		\$	1.00	\$15,224.00	\$15,224.00	\$30.45	_____
Utilities		\$	1.00	\$2,100.00	\$2,100.00	\$4.20	_____
Miscellaneous		Head	500.00	\$6.00	\$3,000.00	\$6.00	_____
Interest Operating Capital		\$	\$170,081.82	0.065	\$5,527.66	\$11.06	_____
TOTAL OPERATING COSTS					\$218,129.94	\$436.26	
INCOME ABOVE OPERATING COSTS					\$70,716.06	\$141.43	
OWNERSHIP COSTS							
Capital Recovery (Depreciation):							
Buildings, Improvements, & Equipment		\$	1.00	\$7,540.50	\$7,540.00	\$15.08	_____
Machinery & Vehicles		\$	1.00	\$16,423.50	\$16,423.50	\$32.85	_____
Purchased Livestock (Bulls & Horses)		\$	1.00	\$15,312.50	\$15,312.50	\$30.63	_____
Cash Overhead:							
Liability Insurance		\$	1.00	\$1,749.00	\$1,749.00	\$3.50	_____
Office & Travel		\$	1.00	\$3,000.00	\$3,000.00	\$6.00	_____
Interest on Retained Livestock		\$	1.00	\$919.88	\$919.88	\$1.84	_____
Annual Investment Insurance		\$	1.00	\$1,565.80	\$1,565.80	\$3.13	_____
Annual Investment Taxes		\$	1.00	\$2,351.05	\$2,351.05	\$4.70	_____
TOTAL OWNERSHIP COSTS					\$48,861.73	\$97.72	
TOTAL COSTS					\$266,991.67	\$533.98	
NET PROJECTED RETURNS					\$21,854.33	\$43.71	

COOPERATIVE EXTENSION

Bringing the University to You

Fact Sheet 05-42

White Pine County Cow-Calf Production Costs & Returns, 2004

Kynda R. Curtis, Assistant Professor and Extension Specialist, Department of Resource Economics, College of Agriculture, Biotechnology and Natural Resources, University of Nevada, Reno

David T. Sceirine, Undergraduate Student, Department of Resource Economics, University of Nevada, Reno

William W. Riggs, Eureka County Extension Educator, University of Nevada Cooperative Extension

Robert Wilson, White Pine County Extension Educator, University of Nevada Cooperative Extension



INTRODUCTION

Sample costs and returns to raise beef cattle in White Pine County, Nevada, are presented in this publication. This publication is intended to be a guide, used to make production decisions, determine potential returns, and prepare business and marketing plans. Practices described are based on the production practices considered typical for a beef cattle cow-calf operation in this region, but may not apply to every operation. A “*Your Ranch*” column in Table 1 is provided for your use.

ASSUMPTIONS

The following assumptions refer to Tables 1 through 3 and reflect the typical costs and returns associated with beef cattle production in White

Pine County, Nevada. The practices described are not the recommendations of the University of Nevada, Reno, but rather the production practices and materials considered typical of a well-managed beef cattle operation in the region as determined by a producer panel conducted in November of 2004. Costs, materials, and practices are not applicable to every operation, as production practices vary among ranchers within the region.

Ranch Description

Livestock. The livestock inventory consists of 500 cows, 25 bulls, and 15 horses. Four replacement bulls are purchased annually, with a useful life of 4 years. Cow replacement is 20%,

Table 1: White Pine County 500 Cow-Calf Production Costs and Returns

Description	Weight Per Animal	Unit of Measure	Total Units	Price/Cost Per Unit	Total Value	Value/Cost Per Head	Your Ranch
GROSS INCOME							
Cull Cows	1100.00	lbs	90.00	\$0.48	\$47,520.00	\$95.04	_____
Cull Bulls	1600.00	lbs	6.00	\$0.65	\$6,240.00	\$12.48	_____
Yearling Replacements	0.00	lbs	0.00	\$0.80	\$0.00	\$0.00	_____
Heifer Calves	425.00	lbs	217.00	\$1.20	\$110,670.00	\$221.34	_____
Steer Calves	450.00	lbs	216.00	\$1.28	\$124,416.00	\$248.83	_____
TOTAL INCOME					\$288,846.00	\$577.69	
OPERATING COSTS							
Aftermath Grazing		Head	500.00	\$12.00	\$6,000.00	\$12.00	_____
Grain		Ton	8.50	\$120.00	\$1,020.00	\$2.04	_____
Alfalfa Hay		Ton	1400.00	\$70.00	\$98,000.00	\$196.00	_____
Federal Grazing (BLM)		AUM	3179.00	\$1.43	\$4,545.36	\$9.09	_____
Horse (Shoeing, Vet, Feed, etc.)		Head	15.00	\$360.00	\$5,400.00	\$10.80	_____
Veterinary/Medical		Head	500.00	\$9.00	\$4,500.00	\$9.00	_____
Marketing (Brand, Video, Commission)		Head	529.00	\$9.33	\$5,776.92	\$11.55	_____
Checkoff		Head	529.00	\$1.00	\$529.00	\$1.06	_____
Salt & Minerals		Head	500.00	\$5.50	\$2,750.00	\$5.50	_____
Hired Labor		Annual	1.50	\$18,000.00	\$20,250.00	\$40.50	_____
Operator Labor		Monthly	12.00	\$2,000.00	\$24,000.00	\$48.00	_____
Accounting & Legal Fees		\$	1.00	\$3,000.00	\$3,000.00	\$6.00	_____
Maintenance (Buildings, Vehicles, etc.)		\$	1.00	\$16,507.00	\$16,507.00	\$33.01	_____
Fuel & Lube		\$	1.00	\$15,224.00	\$15,224.00	\$30.45	_____
Utilities		\$	1.00	\$2,100.00	\$2,100.00	\$4.20	_____
Miscellaneous		Head	500.00	\$6.00	\$3,000.00	\$6.00	_____
Interest Operating Capital		\$	\$170,081.82	0.065	\$5,527.66	\$11.06	_____
TOTAL OPERATING COSTS					\$218,129.94	\$436.26	
INCOME ABOVE OPERATING COSTS					\$70,716.06	\$141.43	
OWNERSHIP COSTS							
Capital Recovery (Depreciation):							
Buildings, Improvements, & Equipment		\$	1.00	\$7,540.50	\$7,540.00	\$15.08	_____
Machinery & Vehicles		\$	1.00	\$16,423.50	\$16,423.50	\$32.85	_____
Purchased Livestock (Bulls & Horses)		\$	1.00	\$15,312.50	\$15,312.50	\$30.63	_____
Cash Overhead:							
Liability Insurance		\$	1.00	\$1,749.00	\$1,749.00	\$3.50	_____
Office & Travel		\$	1.00	\$3,000.00	\$3,000.00	\$6.00	_____
Interest on Retained Livestock		\$	1.00	\$919.88	\$919.88	\$1.84	_____
Annual Investment Insurance		\$	1.00	\$1,565.80	\$1,565.80	\$3.13	_____
Annual Investment Taxes		\$	1.00	\$2,351.05	\$2,351.05	\$4.70	_____
TOTAL OWNERSHIP COSTS					\$48,861.73	\$97.72	
TOTAL COSTS					\$266,991.67	\$533.98	
NET PROJECTED RETURNS					\$21,854.33	\$43.71	

Table 3
Net Returns per Cow above Cost for a Cow-Calf Operation

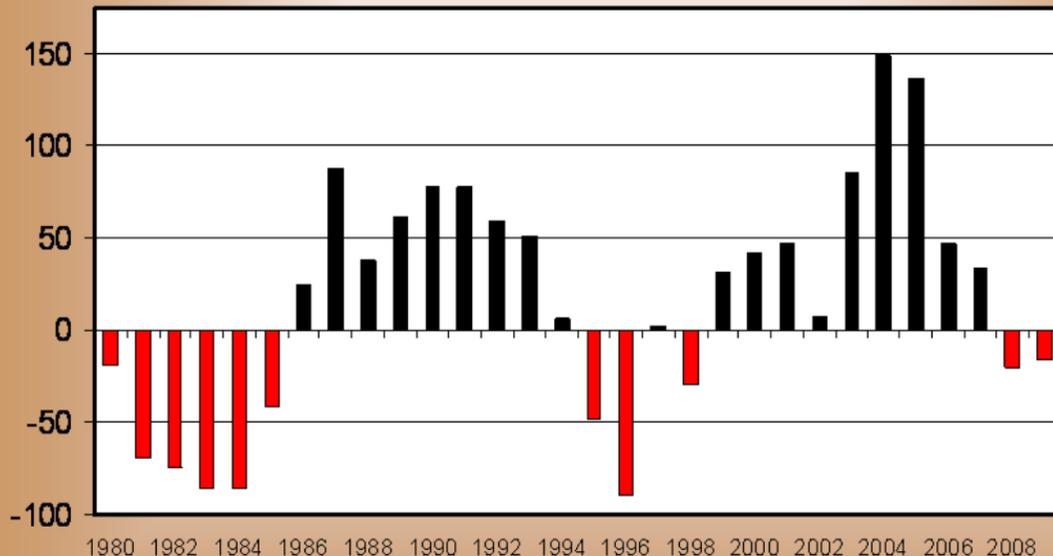
Calf Price \$/cwt	Alfalfa Cost \$/Ton								
	\$85	\$100	\$115	\$130	\$145	\$160	\$175	\$190	\$205
\$110	(\$82.36)	(\$124.36)	(\$166.36)	(\$208.36)	(\$250.36)	(\$292.36)	(\$334.36)	(\$376.36)	(\$418.36)
\$115	(\$52.56)	(\$94.56)	(\$136.56)	(\$178.56)	(\$220.56)	(\$262.56)	(\$304.56)	(\$346.56)	(\$388.56)
\$120	(\$22.76)	(\$64.76)	(\$106.76)	(\$148.76)	(\$190.76)	(\$232.76)	(\$274.76)	(\$316.76)	(\$358.76)
\$125	\$7.04	(\$34.96)	(\$76.96)	(\$118.96)	(\$160.96)	(\$202.96)	(\$244.96)	(\$286.96)	(\$328.96)
\$130	\$36.85	(\$5.15)	(\$47.15)	(\$89.15)	(\$131.15)	(\$173.15)	(\$215.15)	(\$257.15)	(\$299.15)
\$135	\$66.65	24.65	(\$17.35)	(\$59.35)	(\$101.35)	(\$143.35)	(\$185.35)	(\$227.35)	(\$269.35)
\$140	\$96.45	\$54.45	\$12.45	(\$29.55)	(\$71.55)	(\$113.55)	(\$155.55)	(\$197.55)	(\$239.55)
\$145	\$126.25	\$84.25	\$42.25	\$0.25	(\$41.75)	(\$83.75)	(\$125.75)	(\$167.75)	(\$209.75)

Source: Table matrix generated from the cost estimates in the UNR studies for alfalfa and cow-calf operations.

ESTIMATED AVERAGE COW CALF RETURNS

Returns Over Cash Cost (Includes Pasture Rent), Annual

\$ Per Cow



Source: Livestock Marketing Information Center *Chart of the Week*;

<http://www.lmic.info/memberspublic/pubframes.html> date accessed: May, 2008.

Table 4
Net Returns per acre above Cost for a Joint Alfalfa/Cow-Calf Operation
for Alfalfa Yield of 3.5 Tons/Acre

Calf Price	Alfalfa Price \$/Ton								
	\$85	\$100	\$115	\$130	\$145	\$160	\$175	\$190	\$205
\$110	(\$276.17)	(\$265.67)	(\$255.17)	(\$244.67)	(\$234.17)	(\$223.67)	(\$213.17)	(\$202.67)	(\$192.17)
\$115	(\$246.37)	(\$235.87)	(\$225.37)	(\$214.87)	(\$204.37)	(\$193.87)	(\$183.37)	(\$172.87)	(\$162.37)
\$120	(\$216.57)	(\$206.07)	(\$195.57)	(\$185.07)	(\$174.57)	(\$164.07)	(\$153.57)	(\$143.07)	(\$132.57)
\$125	(\$186.76)	(\$176.26)	(\$165.75)	(\$155.26)	(\$144.76)	(\$134.26)	(\$123.76)	(\$113.26)	(\$102.76)
\$130	(\$156.96)	(\$146.46)	(\$135.96)	(\$125.46)	(\$114.96)	(\$104.46)	(\$93.96)	(\$83.46)	(\$72.96)
\$135	(\$127.16)	(\$116.66)	(\$106.16)	(\$95.66)	(\$85.16)	(\$74.66)	(\$64.16)	(\$53.66)	(\$43.16)
\$140	(\$97.36)	(\$86.86)	(\$76.36)	(\$65.86)	(\$55.36)	(\$44.86)	(\$34.36)	(\$23.86)	(\$13.36)
\$145	(\$67.55)	(\$57.05)	(\$46.55)	(\$36.05)	(\$25.55)	(\$15.05)	(\$4.55)	\$5.95	\$16.45

Source: Table matrix generated from the cost estimates in the UNR studies for alfalfa and cow-calf operations.

Table 5
Net Returns per acre above Cost for a Joint Alfalfa/Cow-Calf Operation
for Alfalfa Yield of 4.5 Tons/Acre

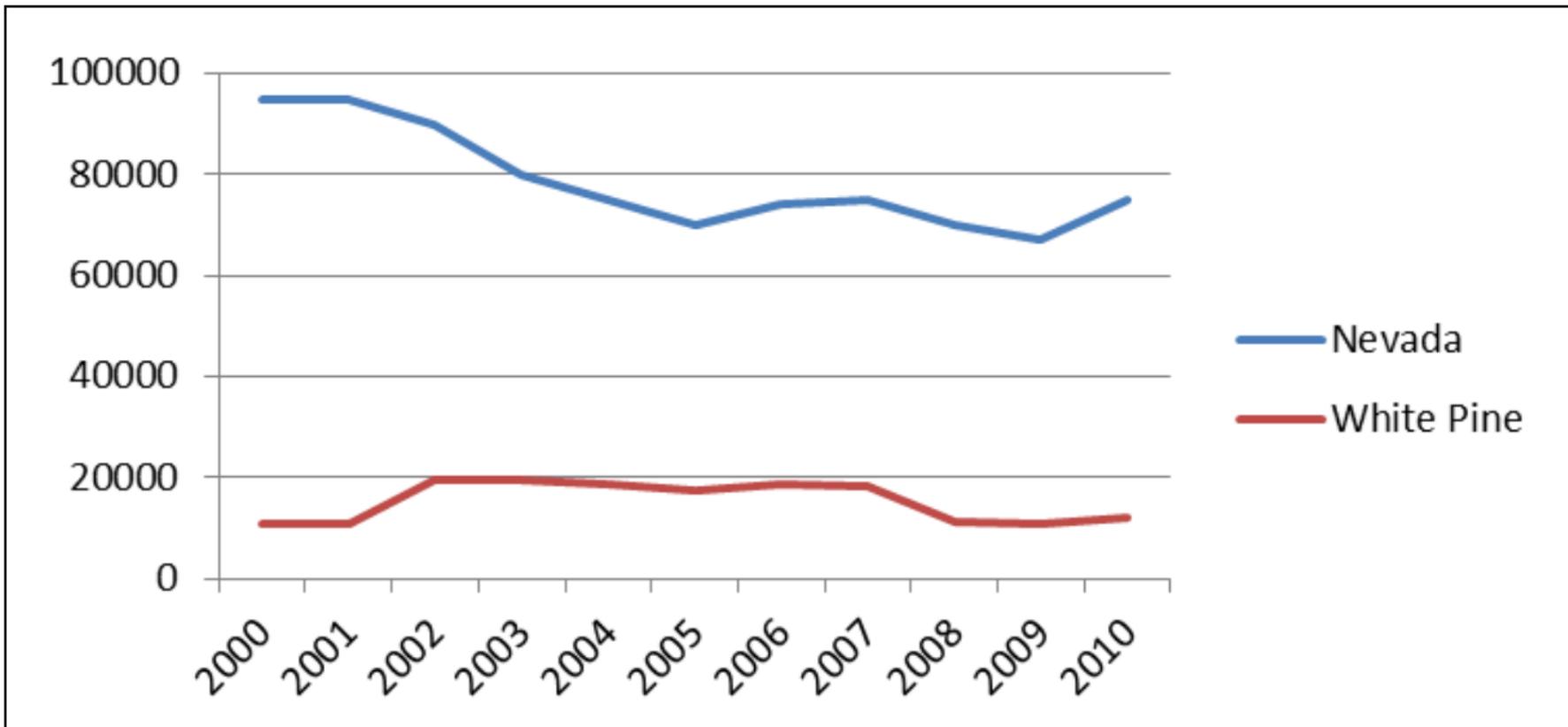
Calf Price	Alfalfa Price \$/Ton								
	\$85	\$100	\$115	\$130	\$145	\$160	\$175	\$190	\$205
\$110	(\$191.17)	(\$165.67)	(\$140.17)	(\$114.67)	(\$89.17)	(\$63.67)	(\$38.17)	(\$12.67)	\$12.83
\$115	(\$161.37)	(\$135.87)	(\$110.37)	(\$84.87)	(\$59.37)	(\$33.87)	(\$8.37)	\$17.13	\$42.63
\$120	(\$131.57)	(\$106.07)	(\$80.57)	(\$55.07)	(\$29.57)	(\$4.07)	\$21.43	\$46.93	\$72.43
\$125	(\$101.76)	(\$76.26)	(\$50.76)	(\$25.26)	\$0.24	\$25.74	\$51.24	\$76.74	\$102.24
\$130	(\$71.96)	(\$46.46)	(\$20.96)	\$4.54	\$30.04	\$55.54	\$81.04	\$106.54	\$132.04
\$135	(\$42.16)	(\$16.66)	\$8.84	\$34.34	\$59.84	\$85.34	\$110.84	\$136.34	\$161.84
\$140	(\$12.36)	\$13.14	\$38.64	\$64.14	\$89.64	\$115.14	\$140.64	\$166.14	\$191.64
\$145	\$17.45	\$42.95	\$68.45	\$93.95	\$119.45	\$144.95	\$170.45	\$195.95	\$221.45

Source: Table matrix generated from the cost estimates in the UNR studies for alfalfa and cow-calf operations. SNWA Exhibit 103

Table 6
Net Returns per acre above Cost for a Joint Alfalfa/Cow-Calf Operation
for Alfalfa Yield of 5.5 Tons/Acre

Calf Price	Alfalfa Price								
	\$/Ton								
\$/cwt	\$85	\$100	\$115	\$130	\$145	\$160	\$175	\$190	\$205
\$110	(\$106.17)	(\$65.67)	(\$25.17)	\$15.33	\$55.83	\$96.33	\$136.83	\$177.33	\$217.83
\$115	(\$76.37)	(\$35.87)	\$4.63	\$45.13	\$85.63	\$126.13	\$166.63	\$207.13	\$247.63
\$120	(\$46.57)	(\$6.07)	\$34.43	\$74.93	\$115.43	\$155.93	\$196.43	\$236.93	\$277.43
\$125	(\$16.76)	\$23.74	\$64.24	\$104.74	\$145.24	\$185.74	\$226.24	\$266.74	\$307.24
\$130	\$13.04	\$53.54	\$94.04	\$134.54	\$175.04	\$215.54	\$256.04	\$296.54	\$337.04
\$135	\$42.84	\$83.34	\$123.84	\$164.34	\$204.84	\$245.34	\$285.84	\$326.34	\$366.84
\$140	\$72.64	\$113.14	\$153.64	\$194.14	\$234.64	\$275.14	\$315.64	\$356.14	\$396.64
\$145	\$102.45	\$142.95	\$183.45	\$223.95	\$264.45	\$304.95	\$345.45	\$385.95	\$426.45

Source: Table matrix generated from the cost estimates in the UNR studies for alfalfa and cow-calf operations.



Source: USDA Statistics (2000-2010, last accessed May 25, 2011)

Figure 12
Sheep Inventory 2000-2010, Nevada and White Pine County

