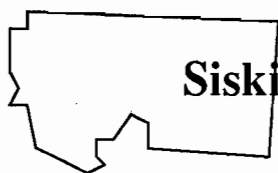


# ALFALFA

## Sample Production Costs

1989



**Siskiyou County**

**University of California  
Cooperative Extension**

1989 SAMPLE COSTS TO PRODUCE ALFALFA  
Siskiyou County - Scott Valley (Land owned)

Labor Rate: \$7.00/hr. skilled labor Interest Rate: 12%  
\$5.00/hr. field labor Yield (tons/acre): 6.0

Operation	Tractor/ Implement		Hours	Cash and Labor Costs per Acre					Total Cost	Your Cost
	No.	No.		Labor Cost/A	Fuel & Repairs	Material Cost	Custom /Rent			
<b>CULTURAL COSTS:</b>										
Irrigate 24", 6X	20	21	5.50		\$1.54	\$40.00			\$42	
Fuel, repairs, labor	23		5.50	\$8.75	.40				9	
Harrow	3	16	.30	8.75	1.86				11	
Herbicide, (winter)						15.64	3.50		19	
Insect Control, 1 of 3 yrs						1.71	1.33		3	
Rodent control						2.50	2.50		5	
Fertilize, 100 lbs P205						10.70	.88		12	
Sulfur, 300 lb, 1 of 4 yrs						4.69	.88		6	
Aftermath management	4	18	.3	2.31	1.62				4	
Charges for pick-up use						4.38			4	
Interest on operating capital @ 12%									5	
<b>TOTAL CULTURAL COSTS</b>			<b>11.60</b>	<b>\$19.81</b>	<b>\$9.79</b>	<b>\$75.24</b>	<b>\$9.08</b>		<b>\$119</b>	
<b>HARVEST COSTS:</b>										
Swath 3X	5		.80	6.16	14.24				20	
Rake 4X	4	7	.80	6.16	5.13				11	
Bale 3X	1	10	.30	2.31	7.80				10	
con't.	2	10	.30	2.31	6.36				9	
con't.	3	10	.30	2.31	5.88				8	
Roadside 3X	12		.50	3.85	15.26				19	
Squeeze in barn	14		.04	.31	.24				1	
<b>TOTAL HARVEST COSTS</b>				<b>\$23.41</b>	<b>\$54.92</b>				<b>\$78</b>	
<b>CASH OVERHEAD:</b>										
Office and business costs									\$4	
Building & Equipment Taxes									10	
Equipment Insurance									3	
<b>TOTAL CASH OVERHEAD COSTS</b>									<b>\$16</b>	
<b>TOTAL CASH COSTS</b>									<b>\$214</b>	
<b>TOTAL CASH COST PER TON @ 6 tons/acre</b>									<b>\$36</b>	
<b>INVESTMENT:</b>										
	Per Acre		Annual Cost		Depreciation		Interest @ 12%			
Equipment & buildings	317		26.12		19.01				45	
Irrigation system	338		14.69		20.28				35	
Land	750				90.00				90	
Stand (6 year life)	200		33.33		12.00				45	
<b>TOTAL INVESTMENT COSTS</b>			<b>1,605</b>	<b>\$74.14</b>	<b>\$141.29</b>				<b>\$215</b>	
<b>TOTAL COSTS PER ACRE</b>									<b>\$429</b>	
<b>TOTAL COST PER TON @ 6 tons/acre</b>									<b>\$71</b>	

MONTHLY SUMMARY OF  
SAMPLE COSTS TO PRODUCE ALFALFA

Siskiyou County - Scott Valley (Land owned)

Operation	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL
<b>CULTURAL COSTS:</b>													
Irrigate 24", 6X				7	7	10	10	7					\$42
Fuel, repairs, labor				1	1	3	3	1					9
Harrow			11										11
Herbicide, (winter)		19											19
Insect Ctrl, 1 of 3					3								3
Rodent control			5										5
Fertilize, 100 lbs P		12											12
Sulfur, 300#, 1 of 4		6											6
Aftermath management											4		4
Charges for pick-up	0	0	0	0	0	0	0	0	0	0	0	0	4
Int.operating capital	0	0	1	1	1	1	2						5
<b>TOTAL CULTURAL COSTS</b>	<b>\$0</b>	<b>\$37</b>	<b>\$17</b>	<b>\$9</b>	<b>\$12</b>	<b>\$15</b>	<b>\$15</b>	<b>\$9</b>	<b>\$0</b>	<b>\$0</b>	<b>\$4</b>	<b>\$0</b>	<b>\$119</b>
<b>HARVEST COSTS:</b>													
Swath 3X						7	7		7				20
Rake 4X						6	3		3				11
Bale 3X						3	3		3				10
con't.						3	3		3				9
con't.						3	3		3				8
Roadside 3X						6	6		6				19
Squeeze in barn						0	0		0				1
<b>TOTAL HARVEST COSTS</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>\$28</b>	<b>\$25</b>	<b>\$0</b>	<b>\$25</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>\$78</b>
<b>CASH OVERHEAD:</b>													
Office and business	0	0	0	0	0	0	0	0	0	0	0	0	4
Bldg./equip. taxes				5								5	10
Equipment Insurance	3												3
<b>TOTAL CASH OVERHEAD</b>	<b>\$3</b>	<b>\$0</b>	<b>\$0</b>	<b>\$5</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$5</b>	<b>\$16</b>
<b>TOTAL CASH COSTS</b>	<b>\$3</b>	<b>\$37</b>	<b>\$17</b>	<b>\$15</b>	<b>\$13</b>	<b>\$43</b>	<b>\$40</b>	<b>\$9</b>	<b>\$26</b>	<b>\$1</b>	<b>\$5</b>	<b>\$6</b>	<b>\$214</b>

Siskiyou County - Scott Valley (Land owned)

Interest Rate: 12%

Fuel Cost per Gallon \$ .60 diesel  
\$ .93 gasoline

ITEM #	DESCRIPTION	NEW COST	ANNUAL COST		LIFE (HRS)	YEARS TO TRADE	----OVERHEAD*----		--- HOURLY COSTS ---			
			USE (ACRES)	PER ACRE			DEPREC-	INTEREST*	TAR*	FUEL*	REPAIRS*	TOTAL
Tractors:												
1	2WD Wheel-130 HP	\$60,000	800	\$75.00	12,000	15	\$5.0	\$4.50	120%	\$6.01	\$6.0	\$12.01
2	2WD Wheel-80 HP	40,000	800	50.00	12,000	15	3.33	3.00	120	3.22	4.00	7.22
3	2WD Wheel-65 HP	30,000	800	37.50	12,000	15	2.50	2.25	120	2.61	3.00	5.61
4	2WD Wheel-60 HP	20,000	800	25.00	12,000	15	1.67	1.50	120	2.41	2.00	4.41
5	Swather, SP - 14'	40,000	800	50.00	2,500	10	5.00	3.00	100	1.80	16.00	17.80
6	2 - Darf turning rakes	2,000	800	2.50	2,500	10	.25	.15	100		.80	.80
7	Vermeer rake, 12'	5,000	800	6.25	2,500	10	.63	.38	100		2.00	2.00
8	Darf V rake	2,000	800	2.50	2,500	10	.25	.15	100		.80	.80
9	Tandem disc, 14'	4,500	800	5.63	2,500	15	.38	.34	120		2.16	2.16
10	3 Twine Balers X 3	35,000	800	43.75	2,500	10	4.38	2.63	100		14.00	14.00
11	Moldboard, 4-18"	7,000	800	8.75	2,000	15	.58	.53	120		4.20	4.20
12	Harrow bed	60,000	800	75.00	2,000	10	7.50	4.50	80	6.51	24.00	30.51
13	Sprayer	2,000	800	2.50	1,200	10	.25	.15	100		1.67	1.67
14	Hay squeeze	15,000	800	18.75	2,500	15	1.25	1.13	100		6.00	6.00
15	Roteria, 12'	5,000	800	6.25	2,500	10	.63	.38	120		2.40	2.40
16	Chain link harrow	1,200	800	1.50	2,500	10	.15	.09	120		.58	.58
17	Grain drill, 12'	12,000	800	15.00	1,200	10	1.50	.90	100		10.00	10.00
18	Flail, mower	2,500	800	3.13	2,500	10	.31	.19	100		1.00	1.00
19	Cultipacker	3,200	800	4.00	2,500	15	.27	.24	80		1.02	1.02
Irrigation System:												
21	21 wheel lines, 1700'	126,000	800	157.50	40,000	10	15.75	9.45	5		.16	.16
22	4 Pumps, 75 hp	32,000	800	40.00	120,000	30	1.33	2.40	20	.07	.05	.12
23	2 Booster pumps, 30 hp	5,000	800	6.25	120,000	30	.21	.38	20	.07	.01	.08
24	5 Wells- 80' & mainlines	287,600	800	359.50	200,000	50	7.19	21.57	5		.07	.07
25	Pick-up	14,000	800	17.50	1,000	5	3.50	1.05	25		3.50	3.50
25	2 - ATVs	6,000	800	7.50	1,000	5	1.50	.45	15		.90	.90
Buildings:												
	Farm shop	20,000	800	25.00		35	.71	1.50				
	Storage buildings	7,000	800	8.75		35	.25	.53				
	Hay storage (700 ton)	25,000	800	31.25		25	1.25	1.88				
	Shop tools	4,000	800	5.00		10	.50	.30				
TOTAL COST		\$873,000		\$1,091			\$68	\$65				
60% OF NEW COSTS*		\$523,800		\$655			\$41	\$39				

\* DEFINITIONS:

- YEARS TO TRADE----- The projected life of the machine in years adjusted for excessive annual use.
- OVERHEAD ----- Per acre per year.
- DEPRECIATION ----- "COST PER ACRE" divided by "YEARS TO TRADE"
- INTEREST----- ("COST PER ACRE" X "INTEREST RATE") divided by 2 = average interest cost per acre per year.
- TAR----- Total accumulated repairs. The total cost of repairs during the machine's life expressed as a percent of "NEW COST". Calculated from equations based on equipment type and annual use.
- HOURLY COST OF FUEL----- Diesel fuel, oil and lube costs per hour = HP x cost of diesel fuel/gal X 0.0667.  
Gasoline fuel, oil and lube costs per hour = HP x cost of gasoline/gal X 0.0889.
- HOURLY COST OF REPAIRS-- ("NEW COST" X "TAR") divided by ("LIFE IN HOURS").
- 60% OF NEW COSTS ----- Used to reflect a mix of new and used equipment.

COST TO PRODUCE ALFALFA AT VARYING PRICES AND YIELDS

	YIELD (Tons/acre)						
	4.5	5.0	5.5	6.0	6.5	7.0	7.5
Cultural Costs	119	119	119	119	119	119	119
Harvest Costs	67	71	74	78	82	86	67
Cash Overhead	16	16	16	16	16	16	16
Cash cost/acre	202	206	210	214	217	221	202
Cash cost/ton	45	41	38	36	33	32	27
Investment cost	215	215	215	215	215	215	215
TOTAL COST/ACRE	417	421	425	429	433	437	417
TOTAL COST/TON	93	84	77	71	67	62	56

INCOME ABOVE CASH COSTS AT VARYING PRICES AND YIELDS

\$ per Ton	YIELD (Tons/acre)						
	4.5	5.0	5.5	6.0	6.5	7.0	7.5
70	113	144	175	206	238	269	323
75	136	169	203	236	270	304	361
80	158	194	230	266	303	339	398
85	181	219	258	296	335	374	436
90	203	244	285	326	368	409	473
95	226	269	313	356	400	444	511
100	248	294	340	386	433	479	548

INCOME ABOVE ALL COSTS AT VARYING PRICES AND YIELDS

\$ per Ton	YIELD (Tons/acre)						
	4.5	5.0	5.5	6.0	6.5	7.0	7.5
70	-102	-71	-40	-9	22	53	108
75	-80	-46	-13	21	55	88	145
80	-57	-21	15	51	87	123	183
85	-35	4	42	81	120	158	220
90	-12	29	70	111	152	193	258
95	10	54	97	141	185	228	295
100	33	79	125	171	217	263	333