

COST & RETURNS SUMMARY FOR ALFALFA HAY
 COST OF PRODUCING ALFALFA HAY BY D. MARCUM, FARM ADVISOR - P. THOMAS, SRA
 ALL RIVER VALLEY AND BIG VALLEY (SHASTA - LASSEN) 1980 LAND OWNER BASIS
 WHEEL LINE SPRINKLER - PRODUCTION YEARS 3,5,7 ONLY (FERT. & HERB. APPLIED)

Alfalfa Hay #363

AF-IR-80-2

	UNIT	PRICE OR COST/UNIT	QUANTITY	VALUE OR COST PER ACRE	YOUR COST
1. GROSS RECEIPTS FROM PRODUCTION:					
ALFALFA HAY	TON	100.000	6.000	600.00	
TOTAL RECEIPTS:				600.00	
2. VARIABLE COSTS:					
PREHARVEST:					
SINGLE-SUPR PHOS	TON	130.000	0.250	32.50	
CUSTOM FERT APP	ACRE	3.500	1.000	3.50	
HERBICIDE	LBS.	7.500	1.000	7.50	
EQUIPMENT (FUEL-LUBE-REPAIRS)	ACRE			0.26	
BUILDINGS (FUEL-LUBE-REPAIRS)	ACRE			0.33	
IRRIGATION (POWER-LUBE-REP)	ACIN	1.809	36.000	65.14	
IRRIGATION LABOR	HOUR	3.500	3.006	10.52	
INTEREST ON OPERATING CAP.	DOL.	0.14000	52.873	7.25	
TOTAL PREHARVEST COSTS:				127.00	
PREHARVEST COST PER TON				21.1669	
HARVEST:					
WIRE	TON	3.000	6.000	18.00	
TRACTOR (FUEL-LUBE-REPAIRS)	ACRE			4.20	
EQUIPMENT (FUEL-LUBE-REPAIRS)	ACRE			10.55	
MACHINERY LABOR	HOUR	3.500	3.366	11.78	
INTEREST ON OPERATING CAP.	DOL.	0.14000	8.454	1.18	
TOTAL HARVEST COSTS:				45.71	
HARVEST COST PER TON				7.6183	
TOTAL VARIABLE COSTS:				172.71	
VARIABLE COST PER TON				28.7851	
3. INCOME ABOVE VARIABLE COSTS:					
INCOME PER TON				427.29	
				71.2149	
4. OVERHEAD:					
PERSONAL PROPERTY TAXES:				5.22	
REAL PROPERTY TAXES:				6.00	
MISC. OFFICE & BOOKKEEPING (1.00% OF TOTAL VARIABLE COSTS)				1.73	
TOTAL OVERHEAD:				12.95	
OVERHEAD COST PER TON				2.1578	
TOTAL CASH COSTS:				185.66	
TOTAL CASH COST PER TON				30.9430	
5. INCOME ABOVE ALL CASH COSTS:					
INCOME PER TON				414.34	
				69.0570	
6. OWNERSHIP COSTS:					
DEPRECIATION:					
MACHINERY & EQUIPMENT	ACRE			14.90	
IRRIGATION SYSTEM	ACRE			28.07	
BUILDINGS	ACRE			6.63	
TREES, VINES OR STAND	ACRE			65.42	
TOTAL DEPRECIATION:				114.02	
CAPITAL & INTEREST:					
MACHINERY&EQUIPMENT		0.14000	128.608	18.01	
IRRIGATION SYSTEM		0.14000	321.661	45.03	
BUILDINGS		0.10670	88.453	9.44	
TREES, VINES OR STAND		0.10670	515.320	27.49	
LAND		0.10670	600.000	64.02	
TOTAL INTEREST CHARGE:				163.99	
TOTAL FIXED COSTS:				278.00	
FIXED COST PER TON				46.3339	
7. TOTAL OF ABOVE COSTS:					
TOTAL COST PER TON				463.66	
				77.2769	
8. NET RETURNS:					
NET RETURNS PER TON				136.34	
				22.7231	

10 ACRES ALFALFA ON 320 ACRE RANCH
 MANAGEMENT FEE OF 5% OF CASH COSTS MAY BE INCLUDED IF APPLICABLE
 8 YEAR STAND -- 2 TON YIELD 1ST YEAR - 6 TON IN YEARS 2 THRU 8
 DATE PRINTED: 11/09/80 HARVEST MONTH: 9

Updated 11/09/80
 BUDGET RECORD NUMBER 363

UC Cooperative Extension

1980 default data

CASH FLOW & INVESTMENT SUMMARY FOR ALFALFA HAY

BUDGET RECORD NUMBER 363

COST OF PRODUCING ALFALFA HAY BY D. MARCUM, FARM ADVISOR - P. THOMAS, SRA
 FALL RIVER VALLEY AND BIG VALLEY (SHASTA - LASSEN) 1980 LAND OWNER BASIS
 WHEEL LINE SPRINKLER - PRODUCTION YEARS 3,5,7 ONLY (FERT. & HERB. APPLIED)

MONTHLY SUMMARY OF RECEIPTS AND EXPENSES

CATEGORY	UNIT	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
TOTAL RECEIPTS	\$/AC	0.00	0.00	0.00	0.00	0.00	250.00	200.00	0.00	150.00	0.00	0.00	0.00	600.00
OPERATING EXPENSES														
SINGLE-SUPR PHOS	\$/AC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	32.50	0.00	32.50
CUSTOM FERT APP	\$/AC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.50	0.00	3.50
HERBICIDE	\$/AC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.50	0.00	7.50
WIRE	\$/AC	0.00	0.00	0.00	0.00	0.00	7.50	6.00	0.00	4.50	0.00	0.00	0.00	18.00
MACHINE LABOR COST	\$/AC	0.00	0.00	0.00	0.00	0.00	3.38	3.38	0.00	3.38	0.00	1.63	0.00	11.78
INTEREST ON OPER. CAP.	\$/AC	0.00	0.00	0.00	0.00	0.76	1.10	0.70	0.19	0.00	0.00	5.68	0.00	8.43
TRACTOR COST	\$/AC	0.00	0.00	0.00	0.00	0.00	1.03	1.03	0.00	1.03	0.00	1.10	0.00	4.20
EQUIPMENT COST	\$/AC	0.00	0.00	0.00	0.00	0.00	3.52	3.52	0.00	3.52	0.00	0.26	0.00	10.81
BLDG OPER. COST	\$/AC	0.00	0.00	0.00	0.00	0.06	0.06	0.06	0.06	0.06	0.00	0.06	0.00	0.33
IRRIGATION COST	\$/AC	0.00	0.00	0.00	0.00	14.48	14.48	14.48	14.48	7.24	0.00	0.00	0.00	65.14
IRRIG LABOR COST	\$/AC	0.00	0.00	0.00	0.00	2.34	2.34	2.34	2.34	1.17	0.00	0.00	0.00	10.52
TOTAL EXPENSES	\$/AC	0.00	0.00	0.00	0.00	17.62	33.41	31.50	17.06	20.90	0.00	54.96	0.00	172.71

MONTHLY IRRIGATION AND LABOR REQUIREMENTS

	HR/AC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
MACHINE LABOR	HR/AC	0.00	0.00	0.00	0.00	0.00	0.97	0.97	0.00	0.97	0.00	0.47	0.00	3.37
IRRIGATION LABOR	HR/AC	0.00	0.00	0.00	0.00	0.67	0.67	0.67	0.67	0.33	0.00	0.00	0.00	3.01
IRRIG. WATER APPLIED	ACTN	0.00	0.00	0.00	0.00	8.00	8.00	8.00	8.00	4.00	0.00	0.00	0.00	36.00

MACHINERY FIXED AND VARIABLE COSTS PER ACRE

MACHINE	CODE	SIZE	PURCHASE PRICE	YEARS OWNED	ANN HOURS USED	FIXED COST PER ACRE				VARIABLE COST PER ACRE				HRS PER ACRE
						DEPR.	INTER.	TAX	TOTAL	FUEL	LUBE	REPAIRS	TOTAL	
TRAC 30HP USED	1	30.0	2000.	20.	600.	0.12	0.22	0.06	0.41	1.16	0.17	0.20	1.54	0.840
T 30HP USED	2	40.0	4000.	20.	600.	0.30	0.54	0.15	0.99	1.89	0.28	0.49	2.66	1.023
S. WHEEL PICKUP*	19	8.0	12000.	10.	100.	3.76	3.67	1.01	8.44	1.15	0.17	1.16	2.49	0.375
IRR PUMP 75 HP*	22	2.0	25000.	25.	3200.	11.33	23.49	6.96	41.78	39.98	0.60	6.34	46.92	39.600
SWATHER	34	12.0	10000.	15.	100.	4.35	5.55	1.62	11.52	2.22	0.33	2.36	4.91	0.722
SPRAYER	93	15.0	2040.	15.	100.	0.47	0.60	0.18	1.25	0.00	0.01	0.26	0.26	0.385
SIDE DELIV RAKE	124	8.0	2400.	15.	150.	0.74	0.94	0.28	1.95	0.00	0.05	2.54	2.59	0.764
SIDEMOVE TON*	129	1.0	30000.	10.	5000.	16.74	21.54	5.35	43.63	0.00	0.36	17.86	18.22	39.600
BALER3 WIRE*	140	5.5	7800.	15.	50.	5.16	6.49	1.91	13.57	0.00	0.01	0.54	0.55	0.545
HAY STORAGE	42		17550.	20.		4.94	6.44	1.10	12.47	0.00		0.05	0.05	
FARM SHOP	1		3750.	35.		0.60	1.38	0.23	2.21	0.23		0.01	0.24	
TOOLS-SHOP EQUIP	4		3750.	15.		1.09	1.63	0.23	2.95	0.00		0.03	0.03	

MACHINERY & EQUIPMENT INVESTMENT & COSTS PER ACRE

120290.

160 ACRES ALFALFA ON 320 ACRE RANCH
 MANAGEMENT FEE OF 5% OF CASH COSTS MAY BE INCLUDED IF APPLICABLE
 8 YEAR STAND -- 2 TON YIELD 1ST YEAR - 6 TON IN YEARS 2 THRU 8

UC Cooperative Extension

Updated 11/09/80

FUEL USE SUMMARY FOR BUDGET RECORD NUMBER 363
 COST OF PRODUCING ALFALFA HAY BY D. MARCUM, FARM ADVISOR - P. THOMAS, SRA
 FALL RIVER VALLEY AND BIG VALLEY (SHASTA - LASSEN) 1980 LAND OWNER BASIS
 WHEEL LINE SPRINKLER - PRODUCTION YEARS 3,5,7 ONLY (FERT. & HERB. APPLIED)

FUEL USED IN GALLONS PER HOUR

TRAC 30HP USED	1.440
TRAC 40HP USED	1.920
SP BALE PICKUP*	3.200
IRR PUMP 75 HP*	8.951 (KWHRS)
SWATHER	3.200

FUEL ALLOCATED TO OPERATIONS IN GALLONS PER ACRE COVERED

MACHINE	GALLONS	POWER UNIT
SP BALE PICKUP*	0.400	
SWATHER	0.770	
SPRAYER	0.812	TRAC 40HP USED
BALER3 WIRE*	0.384	TRAC 40HP USED
SIDE DELIV RAKE	0.403	TRAC 30HP USED
SIDEMOVE TOW*	354.462 (KWHRS)	IRR PUMP 75 HP*

FUEL ALLOCATED TO OPERATIONS FOR THE BUDGET UNIT

	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL	FUEL TYPE
SPRAYER	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.812	0.000	0.812	DIESEL
SWATHER	0.000	0.000	0.000	0.000	0.000	0.770	0.770	0.000	0.770	0.000	0.000	0.000	2.311	DIESEL
BALER3 WIRE*	0.000	0.000	0.000	0.000	0.000	0.384	0.384	0.000	0.384	0.000	0.000	0.000	1.152	DIESEL
SIDE DELIV RAKE	0.000	0.000	0.000	0.000	0.000	0.403	0.403	0.000	0.403	0.000	0.000	0.000	1.210	DIESEL
SP BALE PICKUP*	0.000	0.000	0.000	0.000	0.000	0.400	0.400	0.000	0.400	0.000	0.000	0.000	1.200	DIESEL
SIDEMOVE TOW*	0.000	0.000	0.000	0.000	78.769	78.769	78.769	78.769	39.385	0.000	0.000	0.000	354.462	KWH
TOTALS	0.000	0.000	0.000	0.000	78.769	80.727	80.727	78.769	41.342	0.000	0.812	0.000	6.685	

GALLONS FUEL BY TYPE

0.00 GAS
 0.00 LP
 6.69 DIESEL
 0.00 N. GAS
 39.385 KWHRS

FUEL TYPES

1=GAS
 2=L.P.
 3=DIESEL
 4=N. GAS
 5=ELEC.

MACHINERY OPERATIONS SUMMARY BUDGET RECORD NUMBER 363
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OPERATION	ITEM NO.	DATE	TIMES OVER	LABOR HOUR S	MACHINE HOURS	FUEL, OIL, LUB., REP. PER ACRE	FIXED COSTS PER ACRE
SPRAYER	2,	93 NOV	1.00	0.465	0.385	1.36	1.66
SWATHER	34	JUNE	1.00	0.000	0.241	1.64	3.84
BALER3 WIRE*	2,140	JUNE	1.00	0.220	0.182	0.70	4.72
SIDE DELIV RAKE	1,124	JUNE	1.00	0.308	0.255	1.38	0.79
SP BALE PICKUP*	19	JUNE	1.00	0.150	0.125	0.83	2.81
SWATHER	34	JULY	1.00	0.000	0.241	1.64	3.84
BALER3 WIRE*	2,140	JULY	1.00	0.220	0.182	0.70	4.72
SIDE DELIV RAKE	1,124	JULY	1.00	0.308	0.255	1.38	0.79
SP BALE PICKUP*	19	JULY	1.00	0.150	0.125	0.83	2.81
SWATHER	34	SEPT	1.00	0.000	0.241	1.64	3.84
BALER3 WIRE*	2,140	SEPT	1.00	0.220	0.182	0.70	4.72
SIDE DELIV RAKE	1,124	SEPT	1.00	0.308	0.255	1.38	0.79
SP BALE PICKUP*	19	SEPT	1.00	0.150	0.125	0.83	2.81
TOTALS			2.500	2.791	15.01	38.12	

160 ACRES ALFALFA ON 320 ACRE RANCH
 MANAGEMENT FEE OF 5% OF CASH COSTS MAY BE INCLUDED IF APPLICABLE
 8 YEAR STAND -- 2 TON YIELD 1ST YEAR - 6 TON IN YEARS 2 THRU 8

UC Cooperative Extension

updated 11/09/80

RANGING ANALYSIS FOR BUDGET RECORD NUMBER 363
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INCOME ABOVE VARIABLE COSTS
 WHEN THE PRICE OF ALFALFA HAY AND THE QUANTITY OF ALFALFA HAY

QUANTITY OF ALFALFA HAY	PRICE OF ALFALFA HAY		80.00 TO 4.00 TO	120.00 TO 8.00	
	80.00	90.00	100.00	110.00	120.00
4.00 *	147.29	187.29	227.29	267.29	307.29
* * *					
5.00 *	227.29	277.29	327.29	377.29	427.29
* * *					
6.00 *	307.29	367.29	427.29	487.29	547.29
* * *					
7.00 *	387.29	457.29	527.29	597.29	667.29
* * *					
8.00 *	467.29	547.29	627.29	707.29	787.29
* * *					

INCOME ABOVE ALL CASH COSTS
 WHEN THE PRICE OF ALFALFA HAY AND THE QUANTITY OF ALFALFA HAY

QUANTITY OF ALFALFA HAY	PRICE OF ALFALFA HAY		80.00 TO 4.00 TO	120.00 TO 8.00	
	80.00	90.00	100.00	110.00	120.00
4.00 *	134.34	174.34	214.34	254.34	294.34
* * *					
5.00 *	214.34	264.34	314.34	364.34	414.34
* * *					
6.00 *	294.34	354.34	414.34	474.34	534.34
* * *					
7.00 *	374.34	444.34	514.34	584.34	654.34
* * *					
8.00 *	454.34	534.34	614.34	694.34	774.34
* * *					

INCOME ABOVE ALL COSTS
 WHEN THE PRICE OF ALFALFA HAY AND THE QUANTITY OF ALFALFA HAY

QUANTITY OF ALFALFA HAY	PRICE OF ALFALFA HAY		80.00 TO 4.00 TO	120.00 TO 8.00	
	80.00	90.00	100.00	110.00	120.00
4.00 *	-143.66	-103.66	-63.66	-23.66	16.34
* * *					
5.00 *	-63.66	-13.66	36.34	86.34	136.34
* * *					
6.00 *	16.34	76.34	136.34	196.34	256.34
* * *					
7.00 *	96.34	166.34	236.34	306.34	376.34
* * *					
8.00 *	176.34	256.34	336.34	416.34	496.34
* * *					

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160 ACRES ALFALFA ON 320 ACRE RANCH
 MANAGEMENT FEE OF 5% OF CASH COSTS MAY BE INCLUDED IF APPLICABLE
 8 YEAR STAND -- 2 TON YIELD 1ST YEAR - 6 TON IN YEARS 2 THRU 8

updated 11/09/80

STORED DATA PAGE (NO CALCULATIONS) FOR ALFALFA HAY

BUDGET RECORD NUMBER 363

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 FALL RIVER VALLEY AND BIG VALLEY (SHASTA - LASSEN) 1980 LAND OWNER BASIS
 WHEEL LINE SPRINKLER - PRODUCTION YEARS 3,5,7 ONLY (FERT. & HERB. APPLIED)

COSTS AND RETURNS WILL BE DIVIDED BY 6.0 TON TO OBTAIN PER TON COSTS

LINE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
PRODUCTION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	PRICE	SHARE RENT	UNIT CODE	ITEM CODE	TYPE	XXXX
1 ALFALFA HAY	0.00	0.00	0.00	0.00	0.00	2.50	2.00	0.00	1.50	0.00	0.00	0.00	100.000	0.000	3.	9.	2.	0.

OPERATING INPUTS	RATE/UNIT												PRICE	SHARE RENT	UNIT CODE	ITEM CODE	TYPE	HARV CODE
6 SINGLE-SUPR PHOS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.00	130.000	0.000	3.	219.	3.	0.
7 CUSTOM FERT APP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	3.500	0.000	7.	278.	3.	0.
8 HERBICIDE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	7.500	0.000	12.	250.	3.	0.
9 WIRE	0.00	0.00	0.00	0.00	0.00	2.50	2.00	0.00	1.50	0.00	0.00	0.00	3.000	0.000	3.	383.	3.	9.

MACHINERY REQUIREMENTS	IMPLEMENTS = TIMES OVER, TRUCKS = # MILES/ACRE, TRACTORS = HRS/ACRE												M CREW POWER		MACH	TYPE	HARV	
													LABOR	UNIT	CODE		CODE	
26 SPRAYER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.000	0.000	2.	93.	4.	0.
27 SWATHER	0.00	0.00	0.00	0.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00	0.000	0.000	0.	34.	4.	9.
28 BALER3 WIRE*	0.00	0.00	0.00	0.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00	0.000	0.000	2.	140.	4.	9.
29 SIDE DELIV RAKE	0.00	0.00	0.00	0.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00	0.000	0.000	1.	124.	4.	9.
30 SP BALE PICKUP*	0.00	0.00	0.00	0.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00	0.000	0.000	0.	19.	4.	9.

EQUIPMENT REQUIREMENTS	NUMBER UNITS												PROPERT OF COST	XXX	EQUIP CODE	TYPE	XXXX
51 HAY STORAGE	2.000												1.000	0.	42.	5.	0.
52 FARM SHOP	1.000												0.750	0.	1.	5.	0.
53 TOOLS-SHOP EQUIP	1.000												0.750	0.	4.	5.	0.

LAND REQUIREMENTS	2	3	4	5	6	7	8
	CHARGE METHOD	NUMBER OF ACRES	VALUE OR COST/ACRE	TAXES PER ACRE	PERENNIAL CROPS YRS LIFE	COST/ACRE	
7	1.	160.00	600.00	6.00	8.0	515.32	

ENTERPRISE 2- 9 REGION/COUNTY 61 UNASSIGNED 00000 MACH COMP 2 IRIG SYST 2 UNASSIGNED 0 EQUIP SET 1 HARVEST MONTH 9

160 ACRES ALFALFA ON 320 ACRE RANCH
 MANAGEMENT FEE OF 5% OF CASH COSTS MAY BE INCLUDED IF APPLICABLE
 8 YEAR STAND -- 2 TON YIELD 1ST YEAR - 6 TON IN YEARS 2 THRU 8

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MACHINERY COMPLEMENT 2
 EQUIPMENT COMPLEMENT 1

LINE CHANGE	LINE CHANGE	LINE CHANGE	LINE CHANGE	LINE CHANGE
GENERAL NAME CHANGE->278 CUSTOM FERT APP				
MACHNRY NAME CHANGE-> 2 USED TRAC 40HP				

RW CL	VALUE	RW CL	VALUE	RW CL	VALUE	RW CL	VALUE	RW CL	VALUE	RW CL	VALUE
MACH COMP CHGS-->	2. 3. 4000.000000	2.13. 4000.000000	2.14. 3.000000	*** 5. 0.750000	*** 2. 5.500000	1.14. 3.000000					
	*** 3.30000.000000	***13.30000.000000	1. 3. 2000.000000	1.13. 2000.000000	19. 2. 8.000000	19. 3.12000.000000					
	19.13.12000.000000	22. 3.25000.000000	22.13.25000.000000	34. 3.10000.000000	34.13.10000.000000						
EQDAT COMP CHGS-->	1. 5. 5000.000000	1. 6. 5000.000000	4. 5. 5000.000000	4. 6. 5000.000000							
PARAMETER CHGS-->	10. 3.500000	11. 3.500000	12. 3.500000	18. 0.334000	28. 0.010000						

1980 default data

Updated 11/09/80

Cost of Producing Alfalfa Hay by D. Marcum, Farm Advisor - P. Thomas, SRA
 Fall River Valley and Big Valley (Shasta-Lassen) 1980
 Wheel Line Sprinkler - Land Owner Basis
 Production years 3,5,7 only (Fertilizer and Herbicide applied)

160 acres Alfalfa on 320 acre ranch

Management fee of 5% of cash costs may be included if applicable

8 year stand -- 2 ton yield 1st year - 6 ton yield in years 2 through 8

Additional notes

1. Production years 3,5,7 - Fertilizer and Herbicides applied
 years 2,4,6,8 - no Fertilizer or Herbicides applied
 Irrigations and harvest operations for years 2 through 8 do not differ.
2. Fertilizer in November:
 Materials 0-20-0 Single Superphos. 1/4 ton/ac(500 lb) @ \$130/ton = \$32.50/ac
 Application - custom 2 applications @ \$3.50/acre = \$ 7.00/ac
3. Herbicides in November:
 Materials Metribuzin 1.0 lb/ac (50% WP) @ \$7.50/lb = \$ 7.50/ac
 Spread by sprayer pulled by 40 hp diesel tractor - 1 pass over field
4. Irrigation - wheel line sprinkler (1/4 mile)
 Irrigation system (from machinery complement)* = Side Move Tow
 Pump - 75 hp, 75 feet lift
 9 Irrigations - 36 ac in total broken down as follows:

May	2x	8 ac in total
June	2x	8 ac in total
July	2x	8 ac in total
Aug	2x	8 ac in total
Sept	1x	<u>4 ac in total</u>
		36 ac in total

 Irrigation labor - .334 hrs/application
5. Harvest in June, July and September:

Yield: June	2.5 ton
July	2.0 ton
September	<u>1.5 ton</u>
	6.0 ton

 Price: \$100.00/ton (FOB ranch)
 Operations for 1 cutting:
 - Self propelled Swather - 1 pass over field
 - Baler (3 wire) pulled by 40hp diesel tractor - 1 pass over field
 - Side delivery rake pulled by 30hp diesel tractor - 1 pass over field
 - Self propelled Bale pickup - 1 pass over field
 Wire costs @ \$3.00/ton harvested
6. Labor Rates:
 - Irrigator \$3.50/hr (includes benefits)
 - Machinery labor costs of \$3.50/hr should be ignored if owner-operator runs machinery. They have been included to reflect opportunity costs.
7. Management fee: 5% of cash costs if applicable
8. P.G.&E. power rates used - REA may be used if applicable

9. Equipment:

Hay storage - two 3000 sq ft units used only for alfalfa
 Farm shop - \$5000 3/4 of costs for alfalfa, 1/4 for grain
 Tools - \$5000 3/4 of costs for alfalfa, 1/4 for grain

10. Land Owned:

Land value \$600.00/acre - Land tax \$6.00/acre

11. Machinery and equipment costs are determined by a combination of machinery use and labor requirements.

12. Both 30hp and 40hp tractors purchased used.

13. Establishment costs are divided by 8 years and depreciation and interest costs are shown in years 2-8 (See Budget record number 195)
 Since there was a first year (2 ton) harvest, direct harvest costs have been subtracted from total costs. Harvest machinery and equipment fixed costs are included in establishment costs, but variable costs have been subtracted.

Total costs	\$ 547.84
Harvest costs	<u>- 32.52</u>
Establishment costs	\$ 515.32