

ALFALFA - BALED HAY  
Border Irrigation - Coastal Area  
1971 - Cost Analysis Work Sheet

YIELD - 8.5 tons from 6 cuttings

						Operating Costs/Hour				
						Fuel & Repairs	Deprec.	Interest	Total	
Equipment Operator - \$2.60* per hr. total										
Irrigator - 2.30* " " "						SWT-Wheel tractor 30 hp	\$1.00	\$ .40	\$ .25	\$1.65
Hand Labor - 2.10* " " "						S-Swather	3.85	3.00	.75	7.60
Operator	Trac- tor	Acres /Hour	Hours /Acre	Labor \$	Fuel & Repairs \$	Materials		Cost/Acre		
						Kind and Amount	Costs	Sample	Yours	
<u>Cultural Costs</u>										
Irrigate 14x		.07	14.00	32.20	2.00	Water - 4.5 ac. ft. @ \$5	22.50	56.70		
Fertilizer						P2O5 - 100 lbs. @ 12¢ Appl. \$1	13.00	13.00		
Gopher Control bait, machine	SWT	5.00	.20	.52	.20	Material 80¢/acre	.80	1.52		
Repairs to equipment					.50			.50		
Total Cultural Costs			14.20	\$32.72	\$ 2.70		\$36.30	\$71.72		
<u>Harvesting Costs</u>										
Cut & windrow 6x	S	.67	1.50	3.90	5.78			9.68		
Rake 6x	SWT	1.00	1.00	2.60	1.00			3.60		
Repairs (rake)					.55			.55		
Bale						Contract - \$5/ton	42.50	42.50		
Roadside						Contract - \$2.40/ton	20.40	20.40		
Total Harvest Costs			2.50	\$ 6.50	\$ 7.33		\$62.90	\$ 76.73		
Rent (total)								90.00		
Business & Miscellaneous Costs								6% of cultural, harvest cost, and rent		14.31
<u>Depreciation &amp; Interest</u>						<u>Depreciation</u>	<u>Interest 7%</u>			
SWT-tractor - 1.2 hrs.						\$ .48	\$ .30			
S-swather - 1.5 hrs.						4.50	1.12			
Alfalfa Stand (\$88.04 - 3 yrs.)						29.35	3.08			
Irrigation, other equip. (\$80 - 15 yrs.)						5.33	2.80			
Total Depreciation & Interest						\$39.66	\$ 7.30	\$ 46.96		
Total Cost Per Acre								\$299.72		
Cost Per Ton								35.26		

\*Social Security, Workman's Compensation Insurance included.

COMPARATIVE VALUES OF GREEN CHOP AND BALED HAY

The moisture content of both baled hay and green chop alfalfa must be evaluated in determining the values of the products.

The moisture content of recently baled hay may be as high as 18%, while hay that is in a stack dries down to about 10%.

The moisture content of green chop also varies. Alfalfa cut before bloom

is higher in moisture than alfalfa cut at 10% bloom.

Alfalfa in the spring has a higher % moisture than alfalfa cut in the summer or fall.

The moisture content of green chop usually varies between 78 and 82% moisture, when harvested in this area at 10% bloom stage.

COMPARATIVE VALUES OF GREEN CHOPPED ALFALFA TO BALED ALFALFA HAY<sup>1/</sup>

Green Chop Moisture Content	Green Chop Dry Matter Content	Ratio of Green Chop to Baled Hay (10% M)	Green Chop Value Per Each \$1/Ton Baled Hay	Baled Alfalfa Hay - Cost/Ton					
				\$30	\$34	\$38	\$42	\$46	\$50
%	%		¢/ton	green chop value - \$/ton					
60	40	2.25	44.4	13.32	15.10	16.87	18.65	20.42	22.20
62	38	2.37	42.0	12.60	14.28	15.96	17.64	19.32	21.00
64	36	2.50	40.0	12.00	13.60	15.20	16.80	18.40	20.00
66	34	2.65	37.7	11.31	12.82	14.33	15.83	17.34	18.85
68	32	2.81	35.6	10.68	12.10	13.53	14.95	16.38	17.80
70	30	3.00	33.3	9.99	11.32	12.65	13.99	15.32	16.65
71	29	3.10	32.3	9.69	10.98	12.27	13.57	14.86	16.15
72	28	3.21	31.2	9.36	10.61	11.86	13.10	14.35	15.60
73	27	3.33	30.0	9.00	10.20	11.40	12.60	13.80	15.00
74	26	3.46	28.9	8.67	9.83	10.98	12.14	13.29	14.45
75	25	3.60	27.8	8.34	9.45	10.56	11.68	12.78	13.90
76	24	3.75	26.7	8.01	9.08	10.15	11.21	12.28	13.35
77	23	3.91	25.6	7.68	8.70	9.73	10.75	11.78	12.80
78	22	4.09	24.4	7.32	8.30	9.27	10.25	11.22	12.20
79	21	4.29	23.3	6.99	7.92	8.85	9.79	10.72	11.65
80	20	4.50	22.2	6.66	7.55	8.44	9.32	10.21	11.10
81	19	4.74	21.1	6.33	7.17	8.02	8.86	9.71	10.55
82	18	5.00	20.0	6.00	6.80	7.60	8.40	9.20	10.00

<sup>1/</sup> Baled hay with 10% moisture, based on dry matter relationship only. Green chop in this area frequently has higher protein and nutritive (TDN) value than baled hay from other areas.

Example: If the moisture content of the green chop is 79% and baled hay costs \$42 per ton, the green chop would be valued at \$9.79.

ALFALFA - BALED HAY  
Sprinkler Irrigation - Coastal Area  
1971 - Cost Analysis Work Sheet

YIELD - 8.5 tons from 6 cuttings

						Operating Costs/Hour			
						Fuel & Repairs	Deprec.	Interest	Total
Equipment Operator - \$2.60* per hr. total									
Irrigator - 2.30* " " "						SWT-Wheel Tractor 30 hp \$1.00	\$ .40	\$ .25	\$1.65
Hand Labor - 2.10* " " "						S-Swather 3.85	3.00	.75	7.60
Operation	Trac- tor	Acres /Hour	Hours /Acre	Labor \$	Fuel & Repairs \$	Materials		Cost/Acre	
		Ac.	Hr.			Kind and Amount	Costs	Sample	Yours
<u>Cultural Costs</u>							\$	\$	
Irrigate 14x		.07	14.00	32.20	6.00	Water - 4 ac. ft. @ \$6.50	26.00	64.20	
Fertilizer						P2O5 - 100 lbs @ 12¢ Appl. \$1	13.00	13.00	
Gopher Control bait, machine	SWT	5.00	.20	.52	.20	Material 80¢/acre	.80	1.52	
Repairs to equipment					.50			.50	
Total Cultural Costs			14.20	\$32.72	\$ 6.70		\$39.80	\$ 79.22	
<u>Harvesting Costs</u>									
Cut & windrow 6x	S	.67	1.50	3.90	5.78			9.68	
Rake 6x	SWT	1.00	1.00	2.60	1.00			3.60	
Repairs (rake)					.55			.55	
Bale						Contract - \$5/ton	42.50	42.50	
Roadside						Contract - \$2.40/ton	20.40	20.40	
Total Harvest Costs			2.50	\$ 6.50	\$ 7.33		\$62.90	\$ 76.73	
Rent (total)								90.00	
Business & Miscellaneous Costs						6% of cultural, harvest costs and rent		14.76	
<u>Depreciation &amp; Interest</u>						Depreciation	Interest 7%		
						SWT-Tractor - 1.2 hrs.	\$ .48	\$ .30	
						S-Swather - 1.5 hrs.	4.50	1.12	
						Alfalfa Stand (\$77.45 - 3 yrs.)	25.82	2.71	
						Irrigation, other equip. (\$240 - 15 yrs)	16.00	8.40	
Total Depreciation & Interest							\$46.80	\$12.53	\$ 59.33
Total Cost per Acre									\$320.04
Cost per Ton									37.65

\*Social Security, Workman's Compensation Insurance included.

## ALFALFA-BALED HAY - PROFITS AS AFFECTED BY YIELD & PRICE

### Border Irrigation

YIELD Tons/Acre tons	Total Production Costs/Acre \$	Alfalfa-Baled Hay - Price Per Ton					
		\$30.00	\$34.00	\$38.00	\$42.00	\$46.00	\$50.00
		\$ - Profit or Loss Per Acre					
6.5	284.92	- 89.92	- 63.92	- 37.92	- 11.92	+ 14.08	+ 40.08
7.0	288.62	- 78.62	- 50.62	- 22.62	+ 5.38	+ 33.38	+ 61.38
7.5	292.32	- 67.32	- 37.32	- 7.32	+ 22.68	52.68	82.68
8.0	296.02	- 56.02	- 24.02	+ 7.98	39.98	71.98	103.98
8.5	299.72	- 44.72	- 10.72	+ 23.28	57.28	91.28	125.28
9.0	303.42	- 33.42	+ 2.58	38.58	74.58	110.58	146.58
9.5	307.12	- 22.12	+ 15.88	53.88	91.88	129.88	167.88
10.0	310.82	- 10.82	29.18	69.18	109.18	149.18	189.18
10.5	314.52	+ 0.48	42.48	84.48	126.48	168.48	210.48
11.0	318.22	+ 11.78	55.78	99.78	143.78	187.78	231.78

### Sprinkler Irrigation

YIELD Tons/Acre tons	Total Production Costs/Acre \$	Alfalfa-Baled Hay - Price Per Ton					
		\$30.00	\$34.00	\$38.00	\$42.00	\$46.00	\$50.00
		\$ - Profit or Loss Per Acre					
6.5	305.24	-110.24	- 84.24	- 58.24	- 32.24	- 6.24	+ 19.76
7.0	308.94	- 98.94	- 70.94	- 42.94	- 14.94	+ 13.06	+ 41.06
7.5	312.64	- 87.64	- 57.64	- 27.64	+ 2.36	+ 32.36	62.66
8.0	316.34	- 76.34	- 44.34	- 12.34	+ 19.66	51.66	83.66
8.5	320.04	- 65.04	- 31.04	+ 2.96	36.96	70.96	104.96
9.0	323.74	- 53.74	- 17.74	+ 18.26	54.26	90.26	126.26
9.5	327.44	- 42.34	- 4.34	33.66	71.66	109.66	147.66
10.0	331.14	- 31.14	+ 8.86	48.86	88.86	128.86	168.86
10.5	334.84	- 19.84	+ 22.16	64.16	107.16	148.16	190.16
11.0	338.54	- 8.54	35.46	79.46	123.46	167.46	211.46