PSP

CORN SILAGE, DOUBLE CROPPED

1975

SAMPLE PRODUCTION COST

IN FRESNO AND MADERA COUNTY

Cost Analysis Worksheet
Showing Sample Costs

Prepared by: W. B. Hight, Farm Advisor,
Madera County and Gerald J. St. Andre,
Farm Advisor, Fresno County.

AGRICULTURAL EXTENSION UNIVERSITY OF CALIFORNIA

UC Cooperative Extension

COST ANALYSIS WORKSHEET: Sample Costs to Produce Corn Silage, Double Cropped[1], 1975

	Costs Per Acre	
PRE-HARVEST CASH COSTS	Sample Cost	Your Cost
Land preparation, including plow, disc, harrow, float: 2 hours labor $7.00 + 2 tractor-hours $4.80	$ 11.80	
Pre-plant fertilization: contract 100 pounds nitrogen @ 20¢	20.00	
Plant: 0.6 hour labor $2.10 + 0.3 tractor-hours 72¢	2.82	
Seed: 20 pounds @ 75¢/pound	15.00	
Fertilizer in irrigation water: 100 pounds nitrogen @ 15¢/pound	15.00	
Cultivation: 1 hour labor + 1 tractor-hour	5.90	
Irrigation: 6-8 times, 5 hours labor	15.00	
Irrigation water[2]: pumping power 3 acre-feet @ $5/acre-foot	15.00	
Miscellaneous[3]: 1 hour labor + ½ tractor-hour + material @ $1.00	5.70	
County taxes[2]: 60% of $16	9.60	
Office and operating costs	12.00	
Repairs: irrigation system @ $5 + equipment @ $3.50	8.50	
TOTAL PRE-HARVEST CASH COSTS	$ 136.32	
DEPRECIATION		
Irrigation system: $180 cost, 16-year life - 75% x $11.25	$ 8.44	
Buildings and equipment: $40 cost, 10-year life - 60% x $4	2.40	
Tractor: 3.8 hours @ $1.50/hour	5.70	
TOTAL DEPRECIATION	$ 16.54	
INTEREST ON INVESTMENT @ 7%		
Irrigation system: ½ cost, $80 x 75%	$ 4.20	
Buildings and equipment: ½ cost, $20 x 60%	.84	
Tractor: 3.8 hours @ 90¢/hour	3.42	
Land: @ $800/acre x 60% (share for double crop)	33.60	
TOTAL INTEREST ON INVESTMENT	$ 42.06	
TOTAL COSTS OF PRODUCTION, EXCEPT HARVESTING	$ 194.92	
	Costs Per Ton	
HARVESTING COSTS AND COSTS INTO SILO	Sample Cost	Your Cost
Total cost, except harvesting	$ 7.80	
Chop, haul, and pack: contract @ $3.25/ton	3.25	
Cover material: @ 20¢/ton into silo	.20	
TOTAL COSTS OF PRODUCTION INTO SILO	$ 11.25	
TOTAL SILAGE COSTS FOR BUNKER-TYPE SILO ON FED BASIS (with 15% loss: 25/tons/acre in and 21.25 tons fed)		
Cost into silo (25-ton yield basis)	$ 11.25	
Adjustment for loss to 21.25 ton basis	1.69	
Depreciation, interest, and up-keep on silo	.30	
Feeding	.80	
TOTAL COSTS ON FED BASTS: @ 21.25/acre	$ 14.04	

COSTS PER TON AT VARYING YIELDS			
Yield/acre, tons in	20.0	25.0	30.0
Yield/acre, tons fed	17.0	21.25	25.5
Costs/ton into silo	13.19	11.25	9.95
Costs/ton fed basis	16.27	14.04	12.54

[1]Costs are for a yield of 25 tons per acre into silo. Based on labor @ $3.00-3.50 per hour, including Social Security and Workmen's Compensation insurance; medium hp tractor per hour cash costs @ $[redacted] depreciation @ $.90.
2.40

[2]Water costs may vary from nothing in some irrigation districts to over $30 per acre in other areas. Annual county property taxes can range from $8 to over $20 per acre, depending on the assessed value and tax rate. Interest at 7% on land values may be figured from $36 to $60 or more per year. Note that 60% of the annual per acre costs for the last two items are charged to the corn for silage when it is double cropped.

[3]If herbicides, insecticides, or fertilizers other than nitrogen are used, these costs must be added.

COMPARING CORN SILAGE COSTS WITH COSTS OF OTHER FORAGE CROPS

The feeding value of corn silage, in terms of total digestible nutrients, is usually about one-third that of alfalfa hay. To compare the costs of corn silage with other forage crops, determine the costs on a fed basis. For example, if corn silage costs $20 per ton fed, alfalfa hay at $60 per ton fed provides nutrients at an equivalent cost. However, the 3:1 ratio does not always hold true due to variations in quality of both silage and hay. This should be considered when making comparisons.

Losses of feed nutrients in the silo due to surface spoilage, fermentation, and seepage greatly influence silage costs on a fed basis. Such losses may range from 10% or less to more than 30%, depending on methods, type of silo, and cover.

The sample costs in this sheet show production costs into the silo (including cover) at 11.25 per ton with a 25-ton per acre yield. The total costs per ton on a fed basis, however, come to $14.04 after adding silo overhead, feeding, and allowing for a 15% loss.

COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS,
Division of Agricultural Science, Univ. of Calif., Madera County
and U.S. Department of Agriculture Cooperating.

The University of California's Agricultural Extension Programs are available to all, without regard to race, color, or national origin.