

ECONOMICS OF
ALFALFA HAY PRODUCTION
WITH
WHEEL LINE SPRINKLERS



BY

John Robison, Farm Advisor
A. Doyle Reed, Extension Economist

University of California
Agricultural Extension Service

January 1967

ALFALFA HAY PRODUCTION
WITH WHEEL LINE SPRINKLER IRRIGATION

Yield - 6.0 Tons/Acre. Equipment use based 200 Acres.
 Labor @ \$2.00 Including Social Security & Compensation Insurance.

| Operation | Hours Per Acre | CASH & LABOR COST PER ACRE | | | Total |
|-----------------------------|-------------------|----------------------------|-------------------|--|----------------|
| | | Labor | Fuel & Repairs | Materials | |
| <u>Cultural</u> | | | | | |
| Irrigate 10 times | 2.9 | \$5.75 | \$1.50 | Power for 4.4 Acre Feet \$17.90 | \$25.15 |
| Fertilize | | | | 400 lbs. Gypsum every other year 2.50 | 2.50 |
| Total Cultural Cost | | \$5.75 | \$1.50 | \$20.40 | \$27.65 |
| <u>Harvest</u> | | | | | |
| Swath 3 times | .8 | 1.60 | 2.85 | | 4.45 |
| Rake 1 time | .2 | .40 | .30 | | .70 |
| Bale 3 times | .9 | 1.80 | 2.10 | Wire \$1.00 Ton 6 Tons @ \$2.50 | 9.90 |
| Haul Contract | | | | 15.00 | 15.00 |
| Total Harvest Cost | | \$3.80 | \$5.25 | \$21.00 | \$30.05 |
| <u>Cash Overhead</u> | | | | | |
| Miscellaneous overhead | | | | 5.75 | |
| Taxes | | | | 1.50 | |
| Insurance | | | | .65 | |
| Total Cash Overhead | | | | \$7.90 | \$ 7.90 |
| TOTAL CASH AND LABOR | | \$9.55 | \$6.75 | \$49.30 | \$65.60 |

ANNUAL COST

| Investment | Per Acre | Depreciation | Interest | |
|-----------------------------------|-----------------|----------------|----------------|-----------------|
| Land | \$300.00 | | \$18.00 | |
| Irrigation System | 235.00 | \$17.10 | 7.05 | |
| Stand | 70.00 | 11.70 | 2.10 | |
| Equipment | 100.00 | 10.00 | 3.00 | |
| Hay Storage | 15.00 | 1.00 | .45 | |
| Total Investment | \$720.00 | \$39.80 | \$30.60 | \$ 70.40 |
| TOTAL COST PER ACRE | | | | \$136.00 |
| Cost per Ton @ 6 Ton Yield | | | | \$ 22.65 |

Suggestions For Achieving High Yielding,
High Quality Alfalfa Hay

1. Select well drained, deep soil that is free from alkali forming salts.
2. Apply 400-600 pounds of gypsum per acre every other year. Most of our soils are very deficient in sulphur which is supplied economically by fertilizing with gypsum.
3. Plant certified, inoculated seed of recommended varieties such as Vernal alfalfa.
4. Prepare a good firm seed bed. Plant 10 pounds of seed per acre at a depth of not greater than one inch for most soils. Sow seed in early spring (March and April).
5. Companion crops are not generally recommended.
6. Cut when alfalfa reaches 1/10 bloom or new growth from the crown is 1/4 inch in length. Use a swather and do not turn hay unless it is unavoidable. Three cuttings can be taken if the first cutting is harvested on time.
7. Bale when the moisture is in the 10-15% range. (Stems can be broken with a slight twist.)
8. Do not graze or cut between September 10 and October 15. This is the recovery period alfalfa needs to overwinter and begin growth early in the spring.
9. Irrigate to the needs of the alfalfa plant. During peak water use, July and August, plan to irrigate every 10-15 days. Experience has shown that a quarter mile wheel line will do a good job of irrigating up to 40 acres of alfalfa.