alfalfa seed

sample costs

and

production

University of California
Agricultural Extension Service
Imperial County
Court House, El Centro

Fact Sheet No. 33

ALFALFA SEED -- SAMPLE PRODUCTION COSTS

Costs based on custom rates and 300 lbs. clean seed* in 90 days on an established alfalfa stand.

ITEMS	Sample Costs Per Acre	Per Pound
LABOR AND MATERIALS		
Irrigation Labor 4x @ .75	$ 3.00	
Water 1.5 ft.	3.00	
Insecticides 4x (3.00 per)	12.00	
Application costs ($1.25 air)	5.00	
Bees (3 colonies per acre)	10.00	
Defoliation	7.00	
Combining	7.00	
Hauling @ $2.00/ton	.35	
Cleaning seed @ .01¢ lb.	3.50	
TOTAL	$ 50.85	16.9
GENERAL EXPENSE, 5% of		
LABOR AND MATERIALS	$ 2.54	
DEPRECIATION OF STAND-1/4 yr.	$ 3.43	
LAND RENT	$ 11.25	
TOTAL ALL COSTS	$ 68.07	22.7

* Some straw is bailed after combining, averaging 1 to 1 1/2 tons/acre.

GENERAL INFORMATION

The costs included in this fact sheet are based mainly on contract prices and on an average of costs estimated by several alfalfa seed producers. Many producers use their own equipment and have lower costs.

High alfalfa seed production is dependent on several factors:

- ✓ vigorous plants
- ✓ adequate insect control
- ✓ adequate pollination
- ✓ careful combining

Any one of these factors can lower your production. Watch them all for higher yields.

STARTING DATES

Best possibilities for a good seed crop occur when the last hay is cut between May 1 and May 15. By June 1 to 15 the field is in full bloom. Seed crops made at this time of the year avoid the Lygus, stink-bug and clover seed chalcid infestations which build up from early spring till late fall when the weather breaks. Also late crops maturing in August and September are five times as likely to be damaged by rain.

Earlier seed crops may not bloom properly due to cold weather and

seed "set" may be light or delayed.

VARIETIES

Moapa, African, Common and Arizona 21-5 are usually grown in Imperial County. Moapa is resistant to the spotted alfalfa aphid and is the preferred variety in this area. Because of the nature of aphid resistance in Moapa, one can not expect high resistance to the spotted alfalfa aphid to carry over from a certified seed planting. However, some resistance will be carried over to succeding generations.

There is no evidence available that one variety will produce more seed than another.

IRRIGATION

Allow the plants to become slightly stressed for water up until the bloom period to prevent rank growth after bloom begins, the plants should be irrigated no more frequently than necessary to prevent wilting and to help produce well filled seed pods. The flowers of a slightly stressed plant will contain higher concentrations of nectar and will be more attractive to bees.

POLLINATION

"Bees" are the only pollinators

of any value on alfalfa. In Imperial County it is necessary to rely on honey bees because of a lack of sufficient solitary pollen collecting bees.

To get the most out of your honey bees

- ✓ Introduce strong colonies and make sure they are not weakened by insecticides.
- ✓ Introduce at least 2 or 3 colonies per acre. Five or 6 are used in some areas for 1000 lb. seed crops and up to 9 colonies have been used. More bees are necessary when attractive nectar and pollen producing plants are near by.
- ✓ Introduce one-half the bees about 10 days after the first flowers appear and the remainder a week later. Most effective tripping occurs 3 or 4 days after a move.
- ✓ Distribute the colonies at 1/10 mile intervals in the field. Thirty per cent more seed is set 100 yards than 330 yards from a colony.

PEST CONTROL

Early pest control for Lygus is necessary and much more important than later in the season. A blasted bud means a potential

of many flowers lost. A blasted flower means only an average of six seeds lost. Later only a single seed can be damaged at a time. This is the reason Lygus is considered 10 to 20 times as damaging at 1/10 bloom than during the period of seed set.

Control for the alfalfa seed chalcid have not proven successful and none is recommended. See the "Alfalfa Seed Pest and Disease Control Program" for specific control recommendations.

HARVESTING

Most seed alfalfa is defoliated using a dinitro general spray applied by airplane at from 1 to 3 pints in 10 to 15 gallons of diesel oil per acre. Direct combining can start in 3 to 5 days after spraying.

The windrow-combine method of harvesting is done in some areas but is not recommended in areas like Imperial County where strong winds and low humidity are a hazard to seed production.

Alfalfa straw left by the combine is often baled and sold.

YIELDS

The county average is around 300 lbs. clean seed per acre but some fields will produce twice that or more.

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