

ALFALFA HAY

costs of production

suggestions on growing

UNIVERSITY OF CALIFORNIA
FARM AND HOME ADVISORS' OFFICE
KERN COUNTY
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SUGGESTIONS ON GROWING QUALITY ALFALFA HAY

By

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GENERAL:

KERN COUNTY HAS THE CLIMATE, SOIL AND WATER TO PRODUCE HIGH YIELDS OF ALFALFA HAY. WITH PROPER TIMING OF THE IRRIGATIONS, CUTTING, AND CURING, GOOD YIELDS OF HIGH QUALITY HAY CAN BE PRODUCED. UNLESS QUALITY HAY IS PRODUCED, MUCH OF THE EFFORT TO GROW THE CROP MAY BE LOST.

SOIL REQUIREMENTS:

ALFALFA CAN BE GROWN ON ALL KERN COUNTY SOILS. THE CROP WILL DO POORLY ON LAND THAT CONTAINS HARDPAN OR AN IMPERVIOUS LAYER NEARER TO THE SURFACE THAN FOUR FEET, OR ON SOILS WHERE THE WATER TABLE IS NEAR THE SURFACE. A SOIL IN WHICH WATER WILL PENETRATE WELL IS BEST. ALFALFA IS MODERATELY TOLERANT TO ALKALI.

VARIETY:

ASK FOR THE LEAFLET "ALFALFA VARIETIES - GENERAL CHARACTERISTICS" AT THE FARM & HOME ADVISORS' OFFICE, 2610 "M" STREET, BAKERSFIELD.

SEED TREATMENT:

ORDINARILY, SEED TREATMENT WILL NOT BE NECESSARY. IF SEED TREATMENT IS DESIRED, 5 1/3 OZS. PER 100 POUNDS OF SEED OF ARASAN SFX OR 4 OZS. PHYGON IS RECOMMENDED.

PREPARATION OF SOIL AND PLANTING:

SINCE ALFALFA IS TO OCCUPY THE LAND FOR SEVERAL YEARS, SPECIAL ATTENTION SHOULD BE GIVEN TO PREPARING THE LAND SO THAT WATER CAN BE EVENLY AND PROPERLY CONTROLLED. DETAILS ON THE SIZE OF THE BORDER CHECKS BEST FOR EACH TYPE OF SOIL MAY BE HAD AT THE FARM & HOME ADVISORS' OFFICE.

SUCCESS IN ESTABLISHING A GOOD STAND DEPENDS MAINLY UPON THE KIND OF SEEDBED PREPARED. A GOOD SEEDBED IS FIRM AND MOIST. A RING ROLLER IS EXCELLENT TO FIRM A LOOSE AND OPEN SOIL. AFTER LAND HAS BEEN PREPARED, AN IRRIGATION IS ESSENTIAL. THE WATER WILL REVEAL THE HIGH SPOTS OR SUNKEN SPOTS WITHIN THE BORDERS WHICH THEN MAY BE ELIMINATED BEFORE SEEDING. ALSO, PRE-IRRIGATION WILL ASSIST IN FIRING THE SOIL AS WELL AS PROVIDING THE NECESSARY MOISTURE FOR GERMINATING SEED. IN SOME SOILS, ALTHOUGH NOT GENERALLY RECOMMENDED, SEEDING DRY THEN IRRIGATING UP IS SOMETIMES PRACTICED. BROADCASTING OR SEEDING WITH A REGULAR ALFALFA DRILL ARE BOTH SUCCESSFUL.

PLANTING RATE:

IF BROADCASTING, 20 TO 25 POUNDS PER ACRE, OR IF DRILLING, 15 TO 18 POUNDS PER ACRE ARE SUFFICIENT.

PLANTING TIME:

THE BEST TIME TO SEED ALFALFA IN KERN COUNTY IS OCTOBER AND NOVEMBER, OR FEBRUARY. PLANTS SHOULD HAVE ABOUT SIX WEEKS GROWTH TO SUSTAIN HEAVY FROSTS.

COSTS TO PRODUCE ALFALFA HAY IN KERN COUNTY

BASED ON MAN LABOR AT \$1.00 AND \$1.30 PER HOUR; 30 H.P. WHEEL TRACTOR CASH COST PER HOUR \$1.00;
DEPRECIATION \$.41; INTEREST \$.19

*ROY M. BARNES

**BURT B. BURLINGAME

OPERATION	HOURS PER ACRE	CASH AND LABOR COST PER ACRE			SAMPLE COSTS	MY COSTS
		FUEL AND REPAIRS- LABOR	EQUIPMENT	MATERIAL AND OTHER COSTS		
CULTURAL:						
1/3 LAND PREP. AND PLANT RENOVATION	1.2	\$ 1.56	\$ 1.20	1/3 SEED COST	\$ 2.50	\$ 5.26
IRRIGATE: 12 TIMES	1.5	1.95	1.50			3.45
TAXES	8.0	8.00	2.50	WATER: 4 1/2 FT. @ \$6.00	27.00	37.50
MISCELLANEOUS OVERHEAD					12.50	12.50
		2.30	1.00		3.50	6.80
TOTAL CULTURAL COSTS		\$13.81	\$ 6.20		\$45.50	\$ 65.51
HARVEST:						
Mow: 7 TIMES				CONTRACTOR: 7 TIMES @ \$1.35	\$ 9.45	
RAKE: 7 TIMES				7 TIMES @ 1.35	9.45	
BALE				7 TONS @ 3.50	24.50	
ROADSIDE				7 TONS @ 1.25	8.75	
TOTAL HARVEST COSTS						\$ 52.15
TOTAL CASH AND LABOR COSTS						\$117.66
COSTS AT VARYING YIELDS						
<u>TONS PER ACRE</u>	<u>COST PER TON</u>	<u>INVESTMENT</u>	<u>PER ACRE</u>	<u>ANNUAL COST</u>	<u>DEPRECIATION</u>	<u>INTEREST</u>
5	\$36.05	LAND	\$800.00		\$48.00	
6	30.84	IRRIGATION FACILITIES	200.00	\$15.00	6.00	
7	27.11	TRACTOR 3 HRS.		1.23	.57	
8	24.31	EQUIPMENT	10.00	1.00	.30	
9	22.14	TOTAL		\$17.23	\$54.87	
				TOTAL COST PER ACRE		\$189.76
				COST PER TON @ 7 TON YIELD		27.11

*FARM ADVISOR

**EXTENSION ECONOMIST
IN FARM MANAGEMENT

SPOTTED ALFALFA APHID CONTROL COSTS MAY VARY FROM \$5.00 TO OVER \$15.00 PER ACRE.
UC Cooperative Extension

PLANTING DEPTH:

DEPTH OF SEEDING SHOULD NOT EXCEED 1-1/2 INCHES IN A LIGHT SOIL OR 3/4 INCH IN HEAVIER SOILS.

FERTILIZATION:

IF ANY FERTILIZER IS NEEDED, IT WILL BE PHOSPHATE. IN SOME FIELDS AROUND ARVIN, WHEELER RIDGE, ROSEDALE AND MCFARLAND, TESTS HAVE SHOWN A PHOSPHATE DEFICIENCY. IF THE USE OF PHOSPHATE ON OTHER CROPS HAS GIVEN ECONOMICAL GAINS, THEN PHOSPHATE SHOULD BE APPLIED ON ALFALFA. PERHAPS APPLYING PHOSPHATE TO ONE CHECK BORDER, THEN WATCHING THE GROWTH AND APPEARANCE WOULD BE THE BEST WAY TO TELL WHETHER YOUR FIELD WAS LOW OR DEFICIENT IN THIS PLANT NUTRIENT. YIELDS MAY BE TAKEN BY COMPARING THE NUMBER OF BALES IN THE TREATED CHECK AND A LIKE SIZE CHECK WHICH WAS NOT TREATED. AT ANY RATE, 80 LBS. TO 100 LBS. OF PHOSPHATE (200 TO 240 LBS. OF TREBLE SUPER PHOSPHATE) IS ALL THAT WOULD BE NEEDED.

IRRIGATION:

IRRIGATION WILL DEPEND UPON THE KIND OF SOIL. USUALLY, TWO IRRIGATIONS PER CUTTING IS SUFFICIENT. WATER SHOULD NOT BE ALLOWED TO STAND FOR ANY LENGTH OF TIME IN THE HOT WEATHER, SINCE THIS WILL KILL OUT THE PLANTS. FOR GOOD GROWTH IN KERN COUNTY, FROM 40 TO 50 INCHES OF WATER WILL BE REQUIRED IN A SEASON.

WEED CONTROL:

SEEDLING STANDS: IF BROAD-LEAFED WEEDS ARE A PROBLEM IN YOUNG ALFALFA, USE 4 TO 6 QUARTS OF A SELECTIVE WEED CHEMICAL IN ABOUT 35 GALLONS OF WATER PER ACRE. THIS SHOULD NOT BE APPLIED WHEN TEMPERATURES ARE ABOVE 80° C. AS SOME INJURY TO PLANTS MAY OCCUR.

OLD STANDS: ONE QUART OF A GENERAL WEED CHEMICAL INTO 35 GALLONS OF DIESEL PLUS 80 GALLONS OF WATER PER ACRE WILL ELIMINATE BOTH annual grasses and weeds. Limitations: Apply during winter dormancy or after the first cutting before the next growth starts.

CUTTING:

QUALITY HAY DEPENDS UPON TIMELY CUTTING AND PROPER CURING. THE BEST TIME TO CUT WITH THE LEAST INJURY TO THE STAND IS IN THE ONE-TENTH TO ONE-FOURTH BLOOM STAGE OR WHEN THE NEXT GROWTH OF THE CROWN IS ONE TO ONE AND ONE-HALF INCHES TALL. QUALITY IS ALSO REDUCED WHEN ALLOWED TO LAY IN SWATH OR WINDROW LONGER THAN NECESSARY TO RAKE AND BALE.

(A MORE DETAILED PUBLICATION ON ALFALFA PRODUCTION FOR THE STATE OF CALIFORNIA IS AVAILABLE AT THE FARM & HOME ADVISORS' OFFICE, 2610 "M" STREET, BAKERSFIELD.)