

Seed crops

AGRICULTURE

SACRAMENTO COUNTY

Agriculture

• Notes from the Sacramento County Farm Advisor •

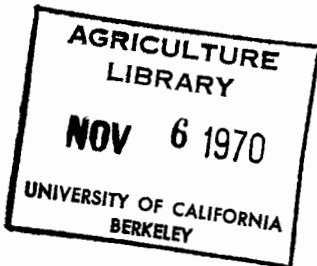
COSTS TO PRODUCE

LADINO CLOVER SEED AND SUDANGRASS SEED

SACRAMENTO COUNTY - 1968

Prepared by

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Sudangrass for seed is usually raised as a rotation crop with Ladino clover seed in the Galt - Elk Grove area of Sacramento County. The common rotation is two to four years of Ladino clover followed by one year of sudangrass. Where this rotation is used the common land preparation practices of ripping, landplaning, and check forming are done in the fall following harvest of the last crop of Ladino clover seed. The soil is reworked in the spring for sudan planting. Following the sudangrass seed harvest, the straw is spread and the clover seed sown into the stubble.

This summary of sample costs to produce these crops is based on the common practices used in the area and is based on a 400 acre operation with 300 acres of Ladino clover for seed and 100 acres of sudangrass. It is also based upon the farmer owning a minimum amount of heavy equipment with the heavier tillage operations such as subsoiling, plowing and landplaning on a contract basis. In this rotation the 100 acres per year would require some contract tillage. Swathing of the sudan is also contracted since, for the acreage involved, ownership of a swather is uneconomical.

The equipment investment summary sheet includes the typical equipment used in such a 400-acre seed operation. The heavy equipment that could be used on a contract basis is also listed to show how rapidly per acre equipment costs will rise when used on a very limited acreage.

A cash rent has been shown for these two crops based on current rental practices in the Galt area. The \$45 cash rent for Ladino clover seed reflects growers' opinions of what they would pay for well leveled land with an adequate water supply and pipeline irrigation suitable for Ladino clover seed production.

* Custom Operations

Equipment Investment Schedule For A Sacramento County Farm With
300 Acres Of Ladino Clover For Seed And 100 Acres Of Sudangrass For Seed

Item	Cost	Annual Use (Acres)	Cost Per Acre	Life (Yrs.)	Depreciation	Interest	Cash Costs Per Hour			Hours Per Acre
							Fuel	Repairs	Total	
Tractor	\$ 7,600	400	19.00	10	\$ 760.00	\$228.00	.42	.78	\$1.20	
Check Breaker	200	100	2.00	10	20.00	6.00		.05	.05	.13
Cultipak (12')	840	100	8.40	10	84.00	25.20		.40	.40	.13
Disk Harrow - Offset (9")	1,200	100	12.00	10	120.00	36.00		.80	.80	.38
Harrow-Spike (12')	390	100	3.90	20	18.50	11.70		.16	.16	.33
Harrow-Springtooth (16')	1,670	100	16.70	10	167.00	50.10		1.00	1.00	.22
Grain Drill (14')	1,150	100	11.50	10	115.00	34.50		.90	.90	.24
Bordex Disc	300	100	3.00	10	30.00	9.00		.40	.40	.17
Drag	300	100	3.00	10	30.00	9.00		.10	.10	.17
Pickup - 3/4 Ton	2,800	400	7.25	5	560.00	84.00	2.2	2.6	4.8	
Truck - 1 1/2 Ton	3,600	400	9.00	8	450.00	108.00	4.2	4.3	8.5	
Combine (16')	15,400	400	38.50	10	1,540.00	462.00	.80	4.15	4.95	.45
Chopper	1,350	400	3.40	10	135.00	40.50		.30	.30	.50
TOTAL			\$137.65							
*Tractor CD40	13,500	200	67.50	10	1,350.00	375.00	.48	.92	1.48	
*Disk Harrow Offset	1,750	100	17.50	10	175.00	52.50		1.15	1.15	.28
*Swather (16')	7,500	100	75.00	5	1,500.00	225.00	.28	4.52	4.80	.18
*Landplane (10'x40')	4,500	100	45.00	15	300.00	135.00		1.15	1.15	.31
*Subsoiler (6')	1,875	100	18.75	10	187.50	56.25		.95	.95	.83
*TOTAL HEAVY EQUIPMENT			\$223.75							

LADINO CLOVER SEED PRODUCTION

Areas of Adaptation: Shallow hardpan soils.

Soil Requirements: Sandy to clay loams, well leveled for water control.

Planting Dates: August to September preferred, October, February. Midwinter plantings may be lost due to frost.

Harvest Dates: August 15 to September 15.

Varieties: Eligible for certification are Espanso Ladino clover, Ladino clover, Merit Ladino clover, and Regal Ladino clover. Foundation or registered seed stock must be planted in order to produce certified seed.

Rotation: Three to four years Ladino clover seed, one or more years sudangrass or grain sorghum.

Seeding Rates: 2 to 3 pounds per acre broadcast.

Fertilizers: 500 pounds per acre single super phosphate at planting time.
400 pounds per acre applied early fall in subsequent years.

Irrigation: 11 to 14 times during growing season with approximately 3 inches water applied per irrigation.

Normal Yield: 350 to 400 pounds per acre.

Weed Control: IPC and CIPC for annual grasses.
2,4-D Amine, 2,4-DB Amine and Ester for broadleaves.
Dichlobenil (Casoron^R) registered but not currently in UC recommendations.
EPTC pre-plant soil incorporated.

Insect Problems: Lygus, spider mites, army worms, aphids, grasshoppers.

Harvest: Direct combine following defoliation with oil-dinitro general spray.

References: "Seed Production of Ladino Clover", UC Circular 182 (1951).
"Weed Control Recommendations", Leaflet 168 (revised annually).
"Pest and Disease Control Recommendations - Ladino Clover", (revised annually).
"Certified Seed Handbook", California Crop Improvement Association.

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SAMPLE COSTS TO PRODUCE LADINO CLOVER SEED

Sacramento County, December 15, 1967

Production Data: 300 acres of clover on 400 acre farm.
 Yield - 400 lbs. per acre.
 Labor - \$2.75 including social security and workmen's compensation.
 Weed Control Labor - \$1.65

Operation	Date	Hours Per Acre	Cash and Labor Costs Per Acre			Total
			Labor	Fuel & Repairs	Materials	
					Kind & Quan.	Cost
Cultural Costs						
Fertilize	Oct-Nov				Single Super Phosphate, 400 lbs. applied	\$ 10.40 \$ 10.40
Weed Control	Dec-Jan				IPC, 5 lbs. applied	11.25 11.25
	March				2,4-D, 12 oz. applied	2.75 2.75
	March				2,4-DB, 16 oz. applied (1/2 acreage)	4.75 4.75
Hand Weeding	Ju-July	2.0	\$ 3.30			3.30
Misc. Weed Cont.	Ju-Aug	1.0	2.75		Weed oil, propane	.50 3.25
Shred	May	.5	1.40	.60		2.00
Insect Control	Ju-July				Lygus, aphids, mites, army worms	19.15 19.15
Misc. Pest Cont.	Jan-Dec				Rodents, slugs	1.00 1.00
Pollination	Ju-July					1.00 1.00
Irrigation 12X	Apr-Aug Sept-Oct	2.0	5.50		4 acre ft. @ \$2.50/acre ft.	10.00 15.50
TOTAL CULTURAL COSTS		5.5	\$12.95			\$60.80 \$74.35
Harvest Costs						
Defoliation	Aug-Sept				Defoliant applied	5.70 5.70
Combine	Aug-Sept	1.0	2.75	4.95		7.70
Hauling	Aug-Sept					1.00 1.00
Cleaning, bags, tags	Aug-Dec				400 lbs. @ 6.5¢	26.00 26.00
TOTAL HARVEST COSTS		1.0	\$2.75	\$4.95		\$32.70 \$40.40
Cash Overhead						
Misc., office, phone, pickup, roadside weed control						5.00
Taxes on equipment only						.45
Land Rent						45.00
TOTAL CASH OVERHEAD						\$50.45
TOTAL CASH COST						\$165.20
Management 5% of 400 lbs. @ 55¢						11.00
Depreciation on equipment		\$ 7.85			Interest on equipment investment	\$2.35
Depreciation on crop stand		8.65			Interest on stand investment	.80
Total Depreciation		\$16.50				\$3.15 \$19.65
TOTAL COST PER ACRE						\$195.85
COST PER LB. @ 400 lb. yield ---						.49¢

SUDANGRASS SEED PRODUCTION

Areas of Adaptation: Upland area outside of Delta.

Soil Requirements: Deep, well-drained soil preferred but majority of Sacramento County acreage is on hardpan soils in a Ladino clover seed rotation.

Planting Dates: April 15 to June 1

Harvest Dates: August 15 to October 1

Varieties: Piper (certified), sweet, hybrids, sudan-sorghum cross.

Seeding Rates: 20 to 30 pounds per acre, drilled.

Fertilizers: 100 to 120 pounds nitrogen pre-plant.
26 to 35 pounds P (60 to 80 lbs. $P_{2}O_{5}$) on soils low in phosphate (San Joaquin series).

Irrigation: One pre-irrigation plus 3 to 7 crop irrigations depending on water holding capacity, depth of soil, and weather conditions.

Normal Yield: 2,500 pounds per acre (1,500 to 3,500 lbs.)

Weed Control: 2,4-D for broadleaf weeds.

Insect Problems: Occasionally army worms.

Harvest: Combine following swathing when 85 to 95 percent of tiller heads are past early dough stage.

References: "Sudangrass for Hay, Pasture, Seed", UC Circular 462 (1957).
"Certified Seed Handbook", California Crop Improvement Association.

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SAMPLE COSTS TO PRODUCE SUDANGRASS SEED

Sacramento County, December 15, 1967

Production Data: Based on 100 acres of sudan on a 400 acre farm

Yield: 2,500 pounds per acre

Labor: \$2.75 per hour including social security and workmen's compensation insurance.

Operation	Date	Hours Per Acre	Cash and Labor Costs Per Acre				
			Labor	Fuel & Repairs	Materials		Total
Kind & Quantity		Cost					
Cultural Costs							
Disk 2X	April	.8	\$2.20	\$1.60		\$ 3.80	
Ridge	April	.2	.55	.30		.85	
Fertilize	April	.2	.55	.25	100# N @ 8¢	\$ 8.00	8.80
					Rent Fert. Rig	.50	.50
					Applic. of 60# P ₂ O ₅ @ 11¢	8.10	8.10
Drag-Shape Levees	April	.35	.95	.45			1.40
Pre-Irrigated	Apr-May	.2	.55		3" water @ \$2.50 ac.ft.	.65	1.20
Springtooth	Apr-May	.2	.55	.45			1.00
Harrow & Roll	Apr-May	.2	.55	.35			.90
Plant	Apr-May	.25	.70	.55	20# seed @ 10¢	2.00	3.25
Irrigate 7X	May-Aug	1.2	3.30		2 ac.ft. water @ \$2.50	5.00	8.30
Weed Control	June				12 oz. 2,4-D Amine applied	2.75	2.75
TOTAL CULTURAL COSTS		3.6	\$9.90	\$3.95		\$27.00	\$40.85
Harvest Costs							
Swath	Aug-Sept			Contract			5.00
Combine	Aug-Sept	1.0	2.75	4.95			7.70
Hauling	Aug-Sept				1½ tons @ \$2.00/ton		3.00
Cleaning, tags, bags	Sept				1¼ tons @ \$1.05/cwt		26.25
Post-Harvest Chopping	Sept			Contract			3.50
TOTAL HARVEST COSTS		1.0	\$2.75				\$45.45
Cash Overhead							
Misc., office, phone, pickup, roadside weed control							5.00
Taxes on equipment only							.80
Rent							40.00
TOTAL CASH OVERHEAD							\$ 45.80
TOTAL CASH COST							132.10
Management 5% of 2,500 pounds @ 6¢							7.50
Depreciation on equipment \$13.50, Interest on equipment investment \$4.05							17.55
TOTAL COST PER ACRE							\$157.15
COST PER POUND @ 2,500 pound yield --- 6.3¢							