Sac Co.

1989 SAMPLE COSTS TO ESTABLISH CERTIFIED CALIFORNIA LADINO CLOVER

SOIL REQUIREMENTS - Ladino does well on shallow soils (as shallow as 12-18 inches), which are underlain by a tight clay or hardpan. Saline soils are unfavorable for Ladino. When planting Ladino on deep, fertile soils, proper water management is crucial for maximum seed production.

PLANTING DATES - Seed between September 15 and November 15. Early fall plantings result in larger, more productive Ladino plants. Spring plantings are also successful where winter weeds are a problem. February 1 to 15 is the approximate time for spring plantings. Seed yield decreases when plantings are delayed beyond March. Ladino is a long lived perennial with a 3 year average for stand longevity. A common rotation schedule includes 2 years in clover followed by 2 years planted to a non-legume, such as corn, wheat, or sudangrass.

HARVEST DATES - 90 to 110 days following spring cutback. Harvest usually occurs from August 20 through October 1.

VARIETIES - Proprietary varieties must be certified by the California Crop Improvement Association.

SEEDING RATES - 3-4 pounds per acre flown on by airplane. Smaller fields (less than 15 acres) can be seeded by ground equipment. Seed may require inoculation.

FERTILIZATION - Depending on soil fertility, varying amounts of phosphorous, nitrogen, and sulfur may be needed. 15-20 pounds of Nitrogen and 60-80 pounds of phosphorous per acre are commonly used for stand establishment. Nitrogen should not be required by well-inoculated stands after the first year.

IRRIGATION - Irrigation may be required every 6-10 days during late spring and summer. 3-5 acre feet of water are needed annually. Leaves begin to cup together when the plant is moisture stressed. Afternoon wilting can be tolerated, but morning wilt indicates that irrigation is overdue.

POLLINATION - Ladino clover flowers are highly self-incompatible and, therefore, must be cross pollinated to produce seed. 0.5 to 1.5 honeybee hives per acre should be sufficient.

YIELDS - 350 to 550 pounds of seed per acre.

INSECT PROBLEMS - Lygus feeds on buds, flowers, and developing seeds. Spider mites can cause the leaves to become cupped, yellowing, and spotted. The pea aphid and clover aphid may cause stem and flower head damage. Weevils, grasshoppers, armyworms, cutworms, clover case bearer, thrips, and leafhoppers are also potential pests of Ladino clover.

DISEASE PROBLEMS - Crown and root rot caused by Sclerotinia sclerotiorum can occur in the winter or early spring. Pepper shot and rust are two common foliar diseases. Several mosaic viruses afflict clover. Aster yellow is a very important clover disease transmitted by leafhoppers.

WEED PROBLEMS - Ryegrass, burclover, canary grass, knotweed, nutsedge, bristly oxtongue, lovegrass, dallisgrass, johnsongrass, yellow star thistle, suckling clover, dodder, watergrass, plantain, and curly dock are common.

SAMPLE COSTS TO PRODUCE CERTIFIED CALIFORNIA CLOVER

CROP .....LADINO CLOVER
FIRST YEAR STAND ESTABLISHMENT COSTS ... $ 123.49

CULTURAL COSTS: FUEL & SEED	COST/A	LABOR COST/A	YOUR COST/A
Chop sudan stubble	$ 0.49	$ 1.32	
Burn permit	0.50		
Seeding costs (by air)	7.00		
Seed (2-3#/a) ($5.00/#)	15.00		
TOTAL:	$ 22.99	$ 1.32*	
IRRIGATION			
Irrigation 2x (diesel/electricity)	$ 20.00	$ 0.10	
TOTAL:	$ 20.00	$ 0.10*	
CHEMICALS		**APPLICATION**	
Starter 11-52-0 (225#/a)	$ 33.75		
Kerb 50W	32.00	$ 5.50	
2,4-D (1.5pt/a)	2.33	5.50	
TOTAL:	$ 68.08	$ 11.00	
LABOR			
Cultural ($5.25/hr)	$ 1.32		
Irrigation ($4.75/hr)	0.10		
TOTAL:	$ 1.42		

TOTAL STAND ESTABLISHMENT COSTS ... $ 123.49
Amortized over 2 years ..... $ 61.75/year

* Included in labor budget

SAMPLE COST TO PRODUCE CERTIFIED CALIFORNIA LADINO CLOVER SEED

CROP	LADINO CLOVER	GROSS INCOME	$ 531.25
YIELD/ACRE IN POUNDS	425	TOTAL CASH EXPENSE/ACRE	479.76
STAND ESTABLISHMENT COST AMORTIZED OVER 2 YEARS			61.75
MARKET VALUE/POUND	$ 1.25	NET LOSS/ACRE	$ -10.26

CULTURAL COSTS: FUEL & SEED	COST/A	LABOR COST/A	YOUR COST/A
Spring cutback	$ 1.25	$ 5.00	
Pollination .5-1 hive/a ($10/hive)	5.00		
Employee pickups	3.14		
TOTAL:	$ 9.39	$ 5.00*	
IRRIGATION			
Irrigation (9x-12x) ($10/irrigation) (diesel/electricity)	$ 90.00	$ 0.45	
TOTAL:	$ 90.00	$ 0.45*	
CHEMICALS		APPLICATION	
Dessication - Diquat + Surphtac	$ 30.00	$ 5.50	
2,4-DB (2-4pt/a)	16.00	5.50	
Poast (2pt/a) + Oil (1qt/a)	35.14	5.50	
Mice control	5.00		
Ammo 2.5 EC for lygus control (or Malathion)	10.74	5.50	
TOTAL:	$ 96.88	$ 22.00	
HARVEST			
Crop Improvement Field Inspection	$ 0.75		
Harvest (Direct Combine/custom)	40.00		
Hauling (.50/cwt)	2.12		
Seed cleaning/certification (.18/#)	76.50		
Storage $6.00/ton	1.28		
TOTAL:	$120.65		
LABOR			
Culture ($5.25/hr)	$ 5.00		
Irrigation ($4.75/hr)	0.45		
TOTAL:	$ 5.45		

* Included in labor budget

CASH OVERHEAD

	COST/A	YOUR COST/A
Cash rental agreement (from $50-$60/a)	$ 50.00	
Management salary/benefits	16.32	
Repairs, maintenance, supplies	30.00	
Employee benefits (36% of labor cost)	0.82	
Insurance	5.00	
Taxes on equipment	2.57	
TOTAL:	$104.71	

DEBT SERVICE

Interest on operating loan	$ 29.25	
Interest on equipment	1.43	
TOTAL:	$ 30.68	

TOTAL GROSS INCOME ..... $ 531.25
TOTAL CASH EXPENSE/ACRE ... 479.76
ESTABLISHMENT COST (1/2) .. 61.75/YEAR

NET LOSS/ACRE ..... $ -10.26

NON-CASH COSTS

Equipment Depreciation	$ 20.00	
Interest on Buildings	0.24	
Building Depreciation	3.33	
TOTAL:	$ 23.57	