

FROM



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FARM ADVISOR'S OFFICE  
COUNTY ADOBE BUILDING  
MERCED, CALIFORNIA

IRRIGATED  
PASTURES  
AS A  
CROP  
IN  
MERCED  
COUNTY

UC COOPERATIVE EXTENSION

# IRRIGATED PASTURE AS A CROP IN MERCED COUNTY

March, 1950

Irrigated pasture is a good crop for much of Merced County land in that it requires little labor per acre and tends to maintain soil fertility. It is essential to the most economical production of dairy products, swine and feeding beef animals and lambs.

Requirements - Irrigated pasture may be grown on a wide range of soils but does rather well on shallow or heavy soils not so well suited to alfalfa or fruit crops. The main essential is plenty of irrigation water in frequent irrigations - every 7 to 10 days in hot weather. Total water requirement varies from year to year perhaps averaging about 54 acre inches per acre in 20 irrigations - more in dry years.

Market outlook - Since irrigated pasture is marketed only through livestock it should be grown only where livestock are available or obtainable. To plant in hope of renting to stockmen at a fair price would be hazardous. Pasture can be increased faster than the stock to use it. Much of the land diverted from other crops all over the country will go into grass and other feeds and the demand for feeder livestock will be high.

Allotment and Support price - Irrigated pasture is not yet subject to acreage allotments or price support. Dairy products are to be supported under current U.S. agricultural programs but meat animals are not. Planting irrigated pasture is considered a soil conserving practice under the Agricultural Conservation Program and a payment of part of the cost of the seed of new plantings is obtainable.

Yield - Pasturage may be measured in animal unit months. An animal unit month is the quantity of feed required in one month by one mature head of cattle or the equivalent in other stock. Yields in Merced County have been observed to vary from a low of around 6 animal unit months of feed per acre to a high of 25. A good commercial production would be about 12 animal unit months per acre, most of which would come during the 8 warmer months of March through October. This would be equivalent to carrying  $1\frac{1}{2}$  mature head of cattle for 6 months and a half for the other 6. An animal unit month is equivalent in feed value to about .4 of a ton of alfalfa hay, so a good yield of 12 animal unit months of pasturage per acre would substitute for 4.8 tons of hay.

How much stock? - You can use to advantage about 1 acre of irrigated pasture for each dairy cow in the herd - including the dry and young stock. To utilize a good pasture with beef feeders would require about 3 weaner calves or 2 yearlings per acre for 8 or 9 months. A good pasture should carry about 9 feeder lambs per acre during the good pasture season. Hogs can make good use of irrigated pasture at about 3.5 sows and their offspring per acre. Overstocking or overgrazing reduces production.

Planting recommendation - Desirable seed mixtures vary with soil, irrigation interval and kind of livestock so see us for specific recommendations.

Planting on properly leveled and checked land in a fine firm seedbed is essential. Fall is better than spring. Fit your size of check to your soil and flow of water.

Cost of stand - On previously leveled and irrigated land you should be able to prepare and check your land and buy and plant the seed for around \$30 an acre. A good stand properly grazed and fertilized can last indefinitely, but you will probably want to write it off in depreciation over not more than 10 years - less if in a rotation for a shorter period.

## WHAT WILL IT COST TO GROW IRRIGATED PASTURE?

Here is a sample set of costs of producing irrigated pasture along with columns where you may insert your own costs, for planning a more profitable farm business. This sample assumes an established stand reasonably well cared for and producing 12 animal unit months of pasturage per acre. Man labor is figured at 85 cents per hour and a small wheel tractor for dragging and mowing or clipping at \$1 per hour. Be sure and study each item as it would be on your farm and make your own cost estimate. Then add up your various cost per acre and divide by your probable yield to get your cost per animal unit month of feed.

Operation or item with hours or quantity per acre	Sample Costs		My Costs	
	Per acre	Per An. unit month	Per acre	Per An. unit month
Drag, fertilize, clip, etc. 2 man hours and 1 tractor hour for season	2.70			
Irrigation labor, 7 hrs. for 20 to 22 times	5.95			
Total labor and field power	8.65	.72		
Irrigation water 3 - 4 acre feet	4.00			
Fertilizers and misc., average annual	8.00			
Total material cost	12.00	1.00		
General expense - office, phone, car, etc.	1.40			
County taxes	4.00			
Repairs and misc. overhead	1.50			
Total cash overhead	6.90	.58		
<b>TOTAL CASH COSTS</b>	<b>27.55</b>	<b>2.30</b>		
Depreciation				
Stand, \$25 cost divided by 10 years	2.50			
Irrig. system \$80 cost divided by 20 yrs.	4.00			
Fences \$20 cost divided by 20 yrs.	1.00			
Other equipment \$10 by 10 years	1.00			
Total depreciation	8.50	.71		
Interest on investment at 5%				
On stand, Irrigation systems, fences and equipment at half cost \$67.50	3.38			
On land at \$250 an acre	12.50			
Total interest on investment	15.63	1.30		
<b>TOTAL COST OF PRODUCTION</b>	<b>51.68</b>	<b>4.31</b>		

The above sample shows a total cost of about \$52 an acre or \$4.35 an animal unit month of pasturage. This \$4.35 an animal unit month is equivalent in feed cost to alfalfa hay at \$10.90 per ton. But stock on pasture don't have to be hand fed or cleaned up after. Also good green pasturage is excellent nutritionally. It is a good economical feed. It must be carefully handled and grazed moderately to get high production - just as any other crop must be farmed correctly to get high yields per acre. Irrigated pasture at the above costs can be used in dairy production, swine production and in feeding beef cattle and lambs for market. It is probably too expensive as the main source of feed for commercial breeding herds of beef cattle and sheep. Range and natural pasture cost about half as much.

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