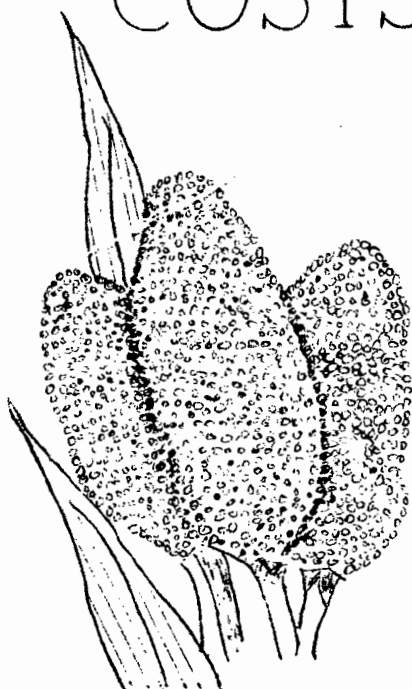


1/12/53

GREEN, SORGHUM

MILO
PRODUCTION
AND
COSTS



FOR

TULARE COUNTY

UNIVERSITY OF CALIFORNIA
AGRICULTURAL EXTENSION SERVICE
POST OFFICE BUILDING, VISALIA
TULARE COUNTY

MILO PRODUCTION AND COSTS FOR TULARE COUNTY

Wilson E. Pendery, Farm Advisor

GENERAL

Milo is well adapted to the warm dry area of the San Joaquin Valley. It will produce grain with limited amounts of water, and is not seriously affected by high temperatures and low humidity during the flowering period.

It has certain advantages that make it a desirable crop in Tulare County. Milo is more tolerant of alkali soil than cotton and can be used in a double cropping farm operation.

SOIL REQUIREMENTS

Milo is well adapted to most of the soils in Tulare County. It will of course do best on a medium textured, well drained and fertile soil. With plenty of moisture available it may be successfully grown on even the sandy soils.

SEEDBED PREPARATION

The better the seedbed, the better the chance of obtaining a good solid stand of milo. A smooth, well pulverized seedbed containing ample moisture should be provided. This is usually accomplished by pre-irrigating and then discing and floating or leveling.

PLANTING

Milo may be either broadcast or planted in rows. When planted in rows, the row spacing may be from 26-32 inches apart. The seeds should be planted deep enough to be in moist soil, but should not be more than $2\frac{1}{2}$ inches deep.

Seeding rates are from 3-5 pounds per acre for row planting or 8-12 pounds per acre for close drill or broadcast plantings. Some growers in Tulare County are using higher rates than these recommended for row plantings; however, there is no evidence yet that these higher seeding rates will increase the yield per acre.

The two varieties recommended for Tulare County are Double Dwarf 38 and Double Dwarf Yellow Sooner. Both of these varieties have yielded well in both commercial plantings and in tests conducted by the Farm Advisors Office. On the better soils, with plenty of moisture available, Double Dwarf 38 should be planted. On the poorer soils, or where the water available is limited, Double Dwarf Yellow Sooner is recommended. Double Dwarf Yellow Sooner may also be the best when the milo is being double cropped and is planted rather late, for it will mature about two weeks sooner than Double Dwarf 38.

Planting dates for milo in Tulare County are from April 15th to July 1st. However, the soil should be warm for good germination and quick growth. Late plantings may result in rain or frost damage before the grain has matured.

SEED AND SEED TREATMENT

The cost of seed and seed treatment is low so buy certified seed and use treated seed as insurance against seedling disease and kernel smut. Any one of several chemicals can be used for seed treatment.

Ceresan M at 1 ounce per 100 pounds of seed

Arasan at $3 \frac{1}{2}$ ounces per 100 pounds of seed

Phygon XL at 2 ounces per 100 pounds of seed

This can be applied either at the ranch or by the seed dealer.

IRRIGATION

In general about two acre feet of water is required to produce a satisfactory yield. This includes a pre-irrigation to insure enough moisture for germination. Three or four crop irrigations are usually necessary to mature the crop. On sandy soils more frequent irrigations will be required than on heavy soils; although the total amount of water will be about the same.

Timing of irrigations is very important. An irrigation just prior to the boot stage -- in order to provide plenty of moisture during the development of the head - should be applied. Irrigation after this is not necessary and may be harmful since it encourages the growth of suckers or tillers which are immature at the time of harvest and therefore objectionable.

FERTILIZER

Milo will usually respond to an application of straight nitrogen fertilizer, and except where there is a known deficiency of phosphate or potash these two fertilizers are not recommended. An application of from 40-60 pounds of actual nitrogen per acre is recommended.

Fertilizer should be applied at planting time or before the first irrigation as a side dressing.

Contrary to popular opinion milo is not hard on the soil. A depressed yield following milo can be corrected with an application of nitrogen fertilizer.

WEED CONTROL

Cultivation should be used only to control weeds. It does not conserve moisture except when it kills weeds. In fact, the soil will dry out to the depth to which it is tilled.

HARVESTING

Any of the regular grain combines may be used, but excessive cylinder speeds should be avoided to prevent cracked grain. The moisture percentage should be below 14% if the grain is to be stored in bulk.

PASTURING MILO

Milo stubble can be pastured but care should be taken against prussic acid poisoning. This poison is usually present in new tillers that grow following light frost or drought.

Wait until the milo plants are dead before pasturing. If a suspected poisonous field is pastured, turn in a few head before turning in the entire herd. This will indicate the degree of danger.

Prussic acid poisoning kills with such speed that treatment is not practical.

COSTS

The cost data sheet information was obtained from Tulare County growers. Costs are variable and the cost sheet only gives a sample of production costs.

WHAT IT WILL COST TO GROW MILO IN TULARE COUNTY
 BASED ON A YIELD OF 3000 LBS. PER ACRE
 (Double Cropped)

Man labor at \$1.00 per hr.; medium wheel tractor @ \$1.60/hr.

WILSON E. PENDERY*

BURT B. DURLINGAME**

	Sample Costs		My Costs	
	Per Acre	Per Cwt.	Per Acre	Per Cwt.
<u>PRE HARVEST LABOR & MATERIAL COSTS:</u>				
Land preparation: man & tractor 2 hrs. @ \$2.60	\$ 5.20			
Plant & fertilize: 2 men & tractor .4 hr. @ \$2.60	1.44			
Seed: 5 lbs. treated @ 7½¢	0.38			
Fertilizer: 60% Nitrogen per acre @ 15¢	9.00			
Irrigate: 1 pre. & 3 crop ¼ man hrs.	4.00			
Water: power for 2 acre ft. @ \$2.50	5.00			
Cultivation & furrowing: 2 x man & tractor 1 hr. @ \$2.60	2.60			
Miscellaneous: labor & materials	1.00			
Total pre-harvest & labor cost	\$28.62	\$.95		
<u>HARVESTING COSTS</u>				
Combine: contract \$6.00 per acre	6.00			
Haul: contract \$2.00 per ton	3.00			
Total harvesting cost	\$ 9.00	\$.30		
<u>CASH OVERHEAD COSTS</u>				
General expense: @ 5% of labor & materials	1.88			
County taxes: 60% of \$6.00	3.60			
Misc., repairs, insurance, etc.	3.00			
Total cash overhead cost	\$ 8.48	\$.28		
TOTAL CASH, LABOR & FIELD POWER COST	\$46.10	\$1.54		
<u>DEPRECIATION COSTS</u>				
Irrigation facilities (original cost \$110) 60%	4.20			
Equipment (except tractor & combine) cost \$17 - 60%	1.02			
Total depreciation	\$ 5.22	\$.17		
<u>INTEREST ON INVESTMENT @ 5%</u>				
Irrigation facilities on ½ cost \$55 @ 60%	1.65			
Equipment - average value \$8.50	.26			
Land @ \$500 @ 60%	15.00			
Total interest on investment	\$16.91	\$.56		
TOTAL COST OF PRODUCTION	\$68.23	\$2.27		

DEFOLIATION COSTS

If defoliation is considered necessary, add \$6.00 per acre to the above total cost.

* Farm Advisor

** Extension Economist
 in Farm Management