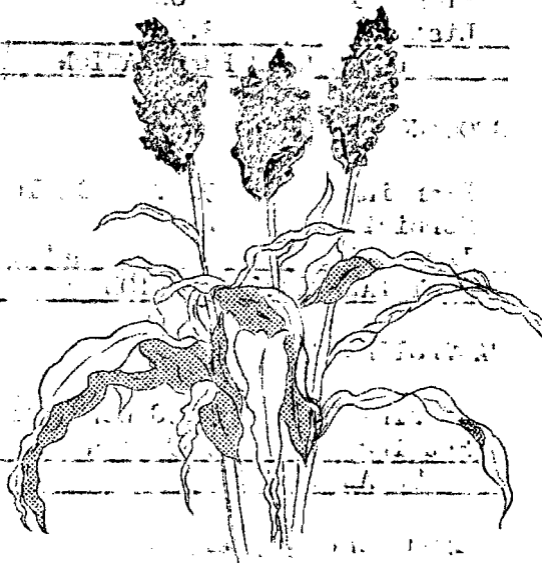


102
sorghums (grain)

sample costs

and

production



Agricultural Extension Service
University of California
Imperial County
Court House, El Centro

Cost Data Sheet No. 8
UC Cooperative Extension

(11510) SORGHUMS (GRAIN)--SAMPLE PRODUCTION COSTS

Mechanical operations at custom rates. Hand labor at \$1.90 per hour (\$1.50 plus Social Security, unemployment insurance, and fringe benefits).

Based on 2.5 tons/acre yield.

| OPERATION | Custom | MATERIALS | | HAND LABOR | | SAMPLE COSTS Per Acre |
|-------------------------------|--------|-----------------------------------|-------|------------|---------|--------------------------|
| | Rate | Type | Cost | Hours | Dollars | |
| LAND PREPARATION | | | | | | |
| Disc 2x | 2.00 | | | | | 4.00 |
| Fertilize | 1.00 | 200# N (NH ₃) | 12.00 | | | 13.00 |
| Float 2x | 1.00 | | | | | 2.00 |
| List | 3.00 | | | | | 3.00 |
| TOTAL LAND PREPARATION | | | | | | 22.00 |
| GROWING PERIOD | | | | | | |
| Planting | 3.00 | 15 lbs seed | 3.45 | | | 6.45 |
| Herbicides | 2.00 | | 4.50 | | | 6.50 |
| Irrigation 10x | | water 5 ac ft | 10.00 | 5.2 | 10.00 | 20.00 |
| TOTAL GROWING PERIOD | | | | | | 32.95 |
| HARVESTING COSTS | | | | | | |
| Combine | 6.50 | per acre plus .125 cwt over 1 ton | | | | 9.65 |
| Hauling | 2.00 | ton | | | | 4.00 |
| TOTAL HARVEST | | | | | | 13.65 |
| Land rent (1/2 year) | | | | | | 25.00 |
| Cash overhead 15% of above | | | | | | 14.04 |
| TOTAL ALL COSTS | | | | | | \$ 107.64 |

Cost per ton = \$43.06

VARIETIES

There are more than 30 grain sorghum varieties available to the grower in the Imperial Valley. These include both hybrids and open-pollinated types. Many of these sorghums are well adapted to the Imperial Valley and will produce satisfactory yields. For the latest varietal testing information, consult the Farm Advisors' Office.

PLANTING DATES

Grain sorghums may be planted as early as March 1. February plantings have been successful. The necessary ingredient for a successful early planting is warm weather so that a uniform healthy stand is obtained. Test results have shown yields to be lower in plantings after April 15th with all grain sorghum varieties. Ryer types are especially subject to lower yields when planted after mid-April. The open-pollinated types and some of the hybrids have produced satisfactory yields when planted as late as July 15th.

PLANTING RATES

The Ryer types should be flat-planted with grain drill at approximately 30 to 40 pounds of seed per acre. Row spacings with these varieties should be 7 to 14 inches. All other varieties and hybrids

should be planted at about 12 to 18 pounds of seed per acre in double row 40 or 42 inch beds, or flat drilled in 14 to 21 inch rows.

The depth of planting will be dependent upon your planting technique. Ryer types planted early in a moist mulch should be placed to a greater depth (1"-2") than the open-pollinated or hybrid types planted on a bed and subbed up (3/4"-1").

SOIL AND SEED BED PREPARATION

Excellent yields of grain sorghums have been obtained on both sandy and heavy soils. Soils capable of producing good crops of alfalfa should be suitable for sorghums. As a general rule, the open-pollinated sorghum varieties tend to be more salt tolerant than many of the hybrids. This is particularly true in the late plantings when air temperatures are higher and periods of stress are more frequent.

IRRIGATION

Grain sorghum may be planted in a moist soil, or irrigated up. It should be irrigated often enough to prevent curling of leaves. After the grain has reached the stiff dough stage, no further irrigations are required. UC Cooperative Extension

FERTILIZATION

Nitrogen is recommended in amounts varying from 80 to 200 pounds of N. The amount needed varies with soil type and the previous cropping history. Grain sorghum planted after a vegetable crop such as lettuce, may require only 60 to 80 pounds of nitrogen. However, sorghum planted after a heavy stubble crop of cotton, grain sorghum or barley may require as high as 200 pounds of nitrogen. In heavier soils, the fertilizer may be applied pre-plant or at planting time in one application. In sandy soils, sidedress applications may be necessary.

INSECT PESTS

Several species of insects attack grain sorghum in the Imperial Valley. The following have been found to occur; however, their presence is not necessarily an indication of the need for control. These pests include seed corn maggot, aphids, cutworms, flea beetles, armyworms, lesser corn stalk borer, corn earworms, white flies, spider mites, and pink scavenger worms. Pest control recommendations are available at the Farm Advisors' Office.

WEED CONTROL

Weed control chemicals are recommended for either pre-emergence or post-emergence use.

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C.S.
Prepared by
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Agricultural Extension Service
Staff

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