

safflower  
sample costs  
and  
production



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

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Cost Data Sheet No. 21

SAFFLOWER--SAMPLE PRODUCTION COSTS

Mechanical operations at custom rates. Labor at \$3.50 per hour (\$3.00 plus Social Security, unemployment insurance, and fringe benefits).

Yield - 1.50 tons per acre.

OPERATION	Custom Rate	MATERIALS		HAND LABOR		SAMPLE COSTS Per Acre
		Type	Cost	Hours	Dollars	
<b>LAND PREPARATION</b>						
Plow or subsoil	\$ 13.50					\$ 13.50
Disc 2x	4.50					9.00
Float 2x	4.00					8.00
Fertilize	3.00	200# N-NH <sub>3</sub>	26.00			29.00
List	5.00					5.00
<b>TOTAL LAND PREPARATION</b>						<b>\$ 64.50</b>

**GROWING PERIOD**

Plant	7.00	15# seed @ 30¢	4.50			11.50
Irrigate 12x		Water 6 ac ft	21.00	5.58	19.53	40.53
Insect control	3.00	insecticide	6.50			9.50
<b>GROWING PERIOD</b>						<b>\$ 61.53</b>

**GROWING PERIOD AND LAND PREPARATION COSTS**

\$ 126.03

Land Rent (new lease) partial year						80.00
Cash Overhead - 15% of preharvest cost and land rent						30.90
<b>TOTAL PREHARVEST COSTS</b>						<b>\$ 236.93</b>

**HARVEST COSTS**

Combine	20.00					20.00
Haul	5.00 per ton					7.50
<b>TOTAL ALL COSTS</b>						<b>\$ 264.43</b>

Cost per ton = \$176.29

**GENERAL INFORMATION:** The average yields for safflower have ranged from .9 to 1.6 tons per acre.

**SOIL REQUIREMENT:** Safflower is adapted to all soils in Imperial Valley. It is moderately salt tolerant; however, for best results it should not be grown in very saline fields. The important factor is that the soil be well drained, not only on the surface but internally. Safflower will not tolerate standing water due to the susceptibility to phytophthora root rot.

**LAND PREPARATION:** Fields must be level enough to prevent standing water. The crops can be planted on beds, either in a mulch or in dry beds and irrigated up. It can also be planted flat in borders either in a mulch or dry and irrigated up.

**PLANTING:** Optimum planting dates range from December 15th to January 15th. When planting on double row 40 inch beds, 15 pounds of seed will be adequate. When safflower is drilled in flat, 30 pounds of seed should be used. Seven or 14 inch drill rows should be used.

When safflower is planted in a mulch, the seed should be placed 1 1/2-2 inches deep. A one inch planting depth is recommended for dry plantings. Safflower planted in a mulch emerges several days earlier than when planted dry and irrigated up.

**VARIETIES:** The variety Gila is a high yielder in the Imperial Valley. There are a number of other varieties that yield relatively well.

**FERTILIZATION:** Safflower requires 200 pounds of nitrogen per acre for maximum yield. Imperial Valley soils usually contain sufficient phosphorus for safflower production. Phosphorus applications may be warranted when the safflower crop is grown on coarse-textured soils (sands, loamy sands and some sandy loams) not following vegetable crops.

## IRRIGATION

For maximum yield, safflower will require 10-12 irrigations depending on the season and soil type. It should never be allowed to become stressed for moisture since moisture stress tends to increase the amount of root rot.

## WEED CONTROL

Consult the Imperial County Weed Control Recommendations.

## INSECTS

Insect pests which may occur on safflower are: Cutworm, green peach aphid, thrips, lygus bugs, loopers, stink bugs, bollworms, leafminers, and leafhoppers.

## DISEASES

Two major diseases of safflower: phytophthora root rot and safflower rust. The varieties Gila and Frio are resistant to phytophthora root rot. One method of avoiding safflower rust is to plant in fields which do not have an immediate safflower history.

## MARKETING

Most safflower is grown under contract with a processing plant for a guaranteed price.

Circular 532 by Knowles and Miller contains more comprehensive information about the crop.

## HARVESTING

Safflower is ready to harvest when the leaves and particularly the bracts around the heads turn brown

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