BE-VS-53-2

CASTOR BEANS

COSTS & GENERAL HINTS ON PRODUCTION

University of California
Agricultural Extension Service
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BRIEFS ON GROWING CASTOR BEANS

Roy M. Barnes - Farm Advisor

GENERAL:

Caston beans are well suited to the areas of Kern County. Varieties which produce good yields on plants that are not objectionably tall have been developed and are available for planting. The yields and the value of the commodity are such that a reasonable profit can be realized. The castor bean is not a legume and is not a soil-reclaiming crop.

SOIL REQUIREMENTS:

The crop should be planted on rather light soils. Any of the sandy loams, silt loams, or fine snady loams grow castor beans well, if they do not contain large quantities of alkali.

VARIETY:

Dwarf varieties, such as Baker, #1, #7, 193 or 195 and Western Oil #4, can be recommended.

SEED TREATMENT:

It is good insurance to treat the seed with a suitable seed disinfectant. Two to four ounces of new improved Ceresan per 100# of seed can be recommended.

PREPARATION OF SOIL AND PLANTING:

The castor bean is a big seed and requires ample moisture in a good firm seed bed during the 10 to 14 day germination period. Pre-irrigation is necessary to provide the correct amount of moisture at planting time. Planting dry and irrigating up is not generally recommended. A good method to use is to furrow the land deeply in row width of 38 to 40 in. (38 in. is preferred to conform with the newly designed combine), pre-irrigate in these furrows, then plant on the ridges--making sure to open the ridges deeply enough

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WHAT WILL IT COST ME TO GROW CASTOR BEANS IN KERN COUNTY WITH A YIELD OF 2,000 LBS. PER ACRE

Roy M. Barnes* Burt Burlingame**

Costs - Man labor 95¢ hr.; medium tractor $1.60 hr.

	Sample Costs		My Costs	
PRE-HARVEST LABOR AND MATERIAL COSTS:	Per Acre	Per Cwt.	Per Acre	Per Cwt.
Land preparation: man and tractor - 2 hrs.	$ 5.10			
Plant & fertilize: 2 men & tractor - .4 hr.	1.40			
Seed: 12 pounds @ 35¢ per pound	4.20			
Fertilizer: 40 pounds of N @ 15¢	6.00			
Irrigate: 1 pre and 5 crop - 12 man hrs.	11.40			
Irrigation water: power to pump 2½ Acre Ft. @ $4.50	11.25			
Hoeing: 1 time - 4 man hrs.	3.80			
Cultivate: 2 times - 1 hr. man and tractor	2.55			
Miscellaneous labor and material	3.00			
Total pre-harvest labor and material costs	48.70	$2.44		
HARVESTING COSTS:				
Defoliate: applied by plane	3.00			
Defoliant : 10 gal. @ 32¢	3.20			
Harvesting: contract @ 1¢ per pound	20.00			
Hauling: $5.00 per acre	5.00			
Hauling: $8.00 ~~per ton~~	8.00			
Total harvesting costs	39.20	1.96		
CASH OVERHEAD COSTS:				
General expense: (5% of labor & material cost)	4.40			
County taxes: ~~$73 value, $5.50 rate~~	6.25			
Miscellaneous repairs, insurance, etc.	4.00			
Total cash overhead costs	14.65	.73		
TOTAL CASH, LABOR AND FIELD POWER COSTS	102.55	5.13		
DEPRECIATION:				
Irrigation facilities: (original cost $200)	15.00			
Tillage equipment and misc., other than tractors $15 cost - 10 yr. life	1.50			
Total depreciation	16.50	.82		
INTEREST ON INVESTMENT @ 5%:				
Facilities & equipment: on ½ original cost	5.38			
Land: $500 per acre	25.00			
Total interest on investment	30.38	1.52		
TOTAL COST OF PRODUCTION	$149.43	$7.47		

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to get moisture. The best planter to use is that designed for either lima beans or shell peanuts. Being a brittle seed, care should be used to prevent seed breakage.

PLANTING RATE:

Twelve pounds of seed is recommended. This amount should produce the desired stand of about one plant each 18 to 24 inches.

PLANTING TIME:

Castor beans should be planted at the same time as cotton. In Kern County, this would be late March to April 15th.

PLANTING DEPTH:

The planting depth should be governed by soil moisture, but should not exceed $2\frac{1}{2}$ inches.

FERTILIZATION:

No nitrogen is needed, when following potatoes or other truck crops, due to the large amount of nitrogen that is carried over. In any instance, probably 40 pounds of nitrogen is all that will be required.

IRRIGATION:

As a rule, castor beans require less moisture than cotton. The first irrigation will probably be needed sooner than for cotton. Frequency in irrigation will depend upon the kind of soil and its ability to retain moisture. Usually an irrigation every 12 to 15 days is required. Water should be withheld in early September, or when the height of the top spikes threaten to exceed 6 feet.

CULTIVATION:

Often two cultivations are sufficient, since the crop quickly shades the ground, hampering weed growth. Shallow cultivation is best to avoid dis-

turbing the important shallow roots. Also, the soil will usually dry out as deeply as it is stirred.

HARVESTING & HULLING:

The best mechanical harvester, at present, is the Massey-Harris self-propelled peanut clipper combine with a special castor bean attachment. Removal of the hulls is done by any of several castor bean hullers which are in use. Usually, the hulling is done on the ranch.

YIELDS:

With proper care, yields of 2,000 pounds to 3,000 pounds may be expected.

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