BLACK EYE BEANS IN KINGS COUNTY

University of California
Agriculture Extension Service
Kings County
UC Cooperative Extension
SOURCES OF MATERIAL

Dry Edible Bean Production in California, Circular 436 by -- R. W. Allard and F. L. Smith

Growing Blackeye Beans in Riverside County by -- Otis A. Harvey


Conversations with Chester Conley, Farm Advisor, Merced County
<table>
<thead>
<tr>
<th>Cost Item</th>
<th>Per Acre</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Irrigation facilities - tillage and other Equip.</td>
<td>3.00</td>
<td>20.00</td>
</tr>
<tr>
<td>Land @ $400 per acre</td>
<td>7.00</td>
<td>52.00</td>
</tr>
<tr>
<td>TOTAL INTEREST ON INVESTMENT</td>
<td>3.00</td>
<td>2.00</td>
</tr>
<tr>
<td>TOTAL COST OF PRODUCTION</td>
<td>10.00</td>
<td>76.00</td>
</tr>
</tbody>
</table>

*Extension Economist in Farm Management

** Probable Cost to Grow Blackeyes in Kings County (Continued)**

Blackeye beans have been grown successfully in Kings county by a few growers who have tried them. Since the number of growers have been few, the information available on a local scale is not complete. In nearby counties Blackeyes have been grown for several years and most growers have found them profitable.

Blackeyes are neither a pea or a bean, but is a member of a distinct genus of the pea family, distinguished by its value as a food and as a forage plant. The name "Bean" is attributed to the fact that most growers prefer to call them "beans" and tradition seems to have made the name stick.

Blackeyes for human consumption are sold in southern United States. They are known under a more realistic name in the consuming area —— Blackeye Peas.

**SOIL PREFERENCE AND WATER NEEDS**

Blackeyes are not tolerant of alkali. Marginal soils containing alkali planted to blackeyes will be disappointing. A medium soil (sandy loam to loam) is preferred. Heavy soils seem to cause extensive vegetative growth and little seed set. However, in the northern part of the Sacramento Valley where extra care is exercised in seed-bed preparation they are grown successfully.

Blackeyes use less water than cotton. About two-acre feet is required here in our area.

1. [ ]
Blackeyes are usually flood irrigated similar to alfalfa in borders or checks, however water to the beans may be controlled easier by using syphons. This control may be necessary since excess water may cause excess vegetative growth and low seed set. Blackeyes are considered to be deeper rooted than most other beans. Under some conditions, only two supplemental irrigations are required. Blackeyes should be irrigated so that one irrigation will come at blooming time. The set will usually be better if ample moisture is applied when the blooms are coming out. Many growers find that additional water after blooming is not necessary. Beans should, in general, have enough water so they won't show signs of stress such as "firing" or "black" color. Under water stress the flowers will absciss or drop. The last irrigation if applied too late may cause rotting of the beans.

LAND PREPARATION AND PLANTING

A well prepared seed bed, pre-irrigated with ample moisture near the surface is a must. If beans follow grain the ground should be prepared at once following harvest.

VARIETY ----------- Blackeye #5 nematode resistant.

POUNDS OF SEED PER ACRE - Fifteen to twenty pounds per acre planted in rows 30 to 36 inches apart.

DEPTH TO PLANT ------ Two - three inches in moist soil

PLANTING EQUIPMENT - Ventura bean planter is probably best but many other types do a satisfactory job.

TIME TO PLANT ------- May 1st to about July 1st.

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PROBABLE COST TO GROW BLACKEYES IN KINGS COUNTY
BASED ON A YIELD OF 1,600 POUNDS PER ACRE

O. D. McCutcheon *

Burt B. Burlingame **

Man labor @ $0.90 per hr.; Medium wheel tractor @ $1.60

SAMPLE COSTS

<table>
<thead>
<tr>
<th>PER</th>
<th>PER</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACRE</td>
<td>CWT.</td>
</tr>
<tr>
<td>--------------</td>
<td>--------------</td>
</tr>
<tr>
<td>Land preparation - man and tractor - 3 hrs.</td>
<td>7.50</td>
</tr>
<tr>
<td>Planting - 2 men - light tractor - 1/4 hr.</td>
<td>1.36</td>
</tr>
<tr>
<td>Seed - 20 pounds @ 18¢</td>
<td>3.60</td>
</tr>
<tr>
<td>Irrigate - 1 pr and 3 crop - 6 man hrs.</td>
<td>5.10</td>
</tr>
<tr>
<td>Water - 2-acre feet - power</td>
<td>4.00</td>
</tr>
<tr>
<td>Hoeing - none to 6 hrs. - average 4</td>
<td>3.60</td>
</tr>
<tr>
<td>Cultivate - 3x - man and tractor - 1 1/2 hrs.</td>
<td>3.75</td>
</tr>
<tr>
<td>DPT - 30 pounds @ 8¢</td>
<td>2.10</td>
</tr>
<tr>
<td>Miscellaneous labor and material cost</td>
<td>2.00</td>
</tr>
<tr>
<td>TOTAL PRE-HARVEST LABOR AND MATERIAL COST</td>
<td>33.61 $2.10</td>
</tr>
</tbody>
</table>

DISEASES

Fields may show shots of diseased plants which are likely to be the damping off diseases. These diseases are likely to be in the soil wherever cotton or beans have been the preceding crop. Rotation with cereal crops cuts the incidence of disease down somewhat. Compa...

FERTILIZER

- Don't use nitrogen, since beans manufacture their own if properly inoculated. It is doubtful if phosphorus is needed, but if you desire to experiment apply 300 pounds of Single Super Phosphate or about 130 pounds of Triple Super Phosphate.

INOCULATE

- Since few beans have been plant-

SEED TREATMENT

- Use Seaweed, Azasan or Seagon, plus 10 ounces of seed, 1/3 - 1/2 pounds of material per 100 pounds of seed.
wilt, a factor in counties to the north might be present. Call the agricultural extension service if you have any unusual diseases. The telephone number is, Ludlow 2-0493, Hanford. In general, beans show the effects of many diseases that are of a virus nature. They cause various stages of yellowing, leaf puckering and stunting.

INSECTS----------Lygus bugs may cause injury to the bean by feeding on the flowers and pods. Five percent DDT in sulfur at 30 pounds per acre is recommended. Apply at first bloom stage.

Aphis might be present, normally only on seedling beans.

Pod borer larvae which hatch from eggs laid by a small gray moth were observed in some fields last season. This insect bores into the pod and feeds on the beans.

They cause bean damage which means that if such beans are not removed they will have less market value. Satisfactory control is not available, but 5% DDT applied twice at the rate of 30 pounds per acre will provide partial control if the first application is made at the time small pods appear to be numerous and a second about two weeks later. Watch the fields carefully at the time the pods are small. In the past some fields have shown no damage at all and treatment should not be used unless necessary.

HARVESTING-------Custom harvesting is available on a limited basis. A bean cutter, wind-rowing equipment and threshing equipment may be obtained for custom work. Be sure to arrange for harvesting well in advance.

MARKETING-------Bean dealers are usually warehousemen or cleaners.

Many growers prefer to sell their beans through cooperative marketing associations.

The cost of cleaning, fumigating and sacking into clean sacks is born by the grower.
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Man labor @ $.90 per hr.; Medium wheel tractor @ $1.60

SAMPLE COSTS
Per Acre Per Cwt.

MY COSTS
Per Acre Per Cwt.

PRE-HARVEST LABOR AND MATERIAL COSTS

Land preparation - man and tractor - 3 hrs. 7.50
Planting - 2 men - light tractor - .5 hr. 1.36
Seed - 20 pounds @ 18¢ 3.60
Irrigate - 1 pre and 3 crop - 6 man hrs. 5.40
Water - 2-acre feet - power 1.00
Hoeing - none to 6 hrs. - average 4 3.60
Cultivate - 3x - man and tractor - 1 1/2 hrs. 3.75
DOT - 30 pounds @ 8¢ 2.10
Miscellaneous labor and material cost 2.00
TOTAL PRE-HARVEST LABOR AND MATERIAL COST 33.61 $2.10

UC Cooperative Extension

DISEASES

Fertilizer

Inoculate

Fields may show spots of diseased plants which are likely to be
the damping-off diseases. These diseases are likely to be
in the soil wherever cotton or beans have been the preceding
crops. Rotation with cereal crops cuts the incidence of
disease down somewhat. Compara-
don use nitrogen, since beans
manufacture their own if proper-
ly inoculated. It is doubtful
if phosphorus is needed, but if
you desire to experiment, buy
300 pounds of Single Super
Phosphate or about 130 pounds
of Triple Super Phosphate.

Since few beans have been plant-
ed in Kings County, it would seem
well to inoculate. Use commercial
inoculant "Rizolic." After
inoculating, keep the bean out
of the heat, then plant while
preventing the inoculant from be-
coming sterile, as sun and heat
causes it to die rapidly.

Irrigation

SEED TREATMENT

5 ounces per 100 pounds or seed,
plus Imdane 75% material
1/3 - 2/3 ounces per 100 pounds of seed.
PLANTING EQUIPMENT - Ventura bean planter is probably a satisfactory job.

DEPTH TO PLANT - Two - three inches in moist soil.

PLANTING - Blackeye #5 resistant. 15 to 20 pounds per acre planted in rows 30 to 36 inches apart.

A well prepared seed bed, pre-irrigated with ample moisture near the surface is a must. It should follow the ground should be prepared at once following harvest.

LAND PREPARATION AND PLANTING

HARVESTING COSTS

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cut and windrow - man and tractor per hr.</td>
<td>2.50</td>
</tr>
<tr>
<td>Combine - contract @ $.80 per cwt.</td>
<td>12.80</td>
</tr>
<tr>
<td>Hauling - roadsiding and to warehouse @ $5.50/ton</td>
<td>4.40</td>
</tr>
<tr>
<td>Reclean - fumigate and storage @ $9.50/ton</td>
<td>7.60</td>
</tr>
<tr>
<td>Sacks - 16 @ $.20/ sack</td>
<td>3.20</td>
</tr>
<tr>
<td><strong>TOTAL HARVESTING COSTS</strong></td>
<td><strong>30.50</strong></td>
</tr>
<tr>
<td><strong>CASH OVERHEAD COSTS</strong></td>
<td></td>
</tr>
<tr>
<td>General expense - Office, phone etc. (5% of above)</td>
<td>3.21</td>
</tr>
<tr>
<td>County taxes</td>
<td>4.00</td>
</tr>
<tr>
<td>Misc., Insurance &amp; cash costs and repairs</td>
<td>2.00</td>
</tr>
<tr>
<td><strong>TOTAL CASH OVERHEAD COSTS</strong></td>
<td><strong>9.21</strong></td>
</tr>
<tr>
<td><strong>TOTAL CASH LAVOR AND FIELD POWER COSTS</strong></td>
<td><strong>73.32</strong></td>
</tr>
<tr>
<td><strong>DEPRECIATION</strong></td>
<td></td>
</tr>
<tr>
<td>Irrigation facilities (original cost $60)</td>
<td>4.50</td>
</tr>
<tr>
<td>Equipment (except tractor &amp; combine) 10 yr. life</td>
<td>2.00</td>
</tr>
<tr>
<td><strong>TOTAL DEPRECIATION</strong></td>
<td><strong>6.50</strong></td>
</tr>
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Many growers find that additional water after blooming is not necessary. Beans should, in general, have enough water so they won't show signs of stress such as "irking" or "black color." Under water stress the flowers will abscise or drop. The last irrigation, if applied too late may cause rotting of the beans.

(continued next page)
Probable Cost to Grow Blackeyes in Kings County (Continued)

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<td>Land @ $400 per acre</td>
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<td><strong>TOTAL INTEREST ON INVESTMENT</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL COST OF PRODUCTION</strong></td>
<td><strong>$102.62</strong></td>
<td><strong>$5.13</strong></td>
</tr>
</tbody>
</table>

* Farm Advisor
Kings County

**Extension Economist in Farm Management**

Costs vary according to size of operation, available equipment, water costs and yields. The above table contains columns for your use so you can estimate your costs. The two columns to the right entitled "My Costs" can be used by you to see what your actual costs are.

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Blackeyes are grown to Blackeyes for human consumption are sold in southern United States. They are known under the more realistic name in the consuming area - Blackeye Peas.

Blackeye beans have been grown successfully in Kings County for many years. In recent years, however, the number of growers who have tried them has declined. In nearby counties, Blackeyes have found favor for several years and most growers have found them profitable. By contrast, the local scale is not complete. In recent years the number of growers who have tried them has declined. In nearby counties, Blackeyes have found favor for several years and most growers have found them profitable.

O. D. McCutcheon, Farm Advisor
May, 1955
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