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 136 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
Blackeyes, are not tolerant of alkali. Marginal soils containing alkali planting in those soils is preferred. Heavy soils seem to cause extensive vegetative growth and little seed set. The width of the northern California and in the Sacramento Valley, where extra care is exercised in seedbed preparation they are grown successfully.

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

**SOIL PREFERENCE AND WATER NEEDS**

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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 abscess 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**

Venturia 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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<table>
<thead>
<tr>
<th>HARVESTING COSTS</th>
<th>CASH OVERHEAD COSTS</th>
<th>DEPRECIATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item</td>
<td>Cost</td>
<td>Insurance &amp; cash costs and repairs</td>
</tr>
<tr>
<td>Combine - machinery &amp; tractor</td>
<td>$2,500</td>
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<tr>
<td>Sacking - produce &amp; storage</td>
<td>$1,400</td>
<td>$700</td>
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<tr>
<td>Receiving - produce &amp; storage</td>
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<td>TOTAL HARVESTING COSTS</td>
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<tr>
<td>Cut &amp; windrow - man &amp; tractor per hr</td>
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<td>3.21</td>
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<tr>
<td>County taxes</td>
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<td>TOTAL CASH PAID FOR CROPS</td>
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<tr>
<td>Irrigation facilities - original cost</td>
<td>$60</td>
<td></td>
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<tr>
<td>TOTAL DEPRECIATION</td>
<td>$60</td>
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</table>

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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 @ $.90 per hr.; Medium wheel tractor @ $1.60

SAMPLE COSTS

My Costs

Per Per Per Per
Acre Cwt. Acre Cwt.

PRE-HARVEST LABOR AND MATERIAL COSTS

Land preparation - man and tractor - 3 hrs. 7.50 3.60
Planting - 2 men - light tractor - .5 hr. 1.36 1.36
Seed - 20 pounds @ 16¢ 3.60 3.60
Irrigate - 1 pre and 3 crop - 6 man hrs. 5.10 5.10
Water - 2-acre feet - power 4.00 4.00
Hoeing - none to 6 hrs. - average 4 3.60 3.60
Cultivate - 3x - man and tractor - 1½ hrs. 3.75 3.75
DUT - 30 pounds @ 8¢ 2.10 2.10
Miscellaneous labor and material cost 2.00 2.00

TOTAL PRE-HARVEST LABOR AND MATERIAL COST 33.61 2.10

DISEASES

Fields may show spots of diseased plants which are likely to be the damping off diseases. These diseases are likely to be caused by Fusarium. Inoculation of bean seed with the proper fungicide material can prevent these diseases. Avoid overcrowding seedlings to prevent damping off. Be sure to use a fungicide that is effective against damping off. Example: Benomyl, Thiram, or Mancozeb. Apply fungicide at planting or as soon as seedlings emerge.

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 about 100 pounds of Single Super Phosphate or about 130 pounds of Triple Super Phosphate.

INOCULATE

Since few beans have been planted in Kings County, we recommend inoculating. It is not necessary if beans have been planted before. Inoculation is normally not necessary if beans have been planted before.

SEED TREATMENT

Use Scepter, Arasan, or Seagram, 3 ounces per 100 pounds of seed, plus 1/3M material per 100 pounds of seed, 1/3M is a material that prevents the inoculant from being washed away by rain or irrigation water.
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, Lu-dow 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, windrowing 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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May 1951

O. D. McCutcheon *

Burt B. Burlingame **

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

<table>
<thead>
<tr>
<th>SAMPLE COSTS</th>
<th>MY COSTS</th>
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<tbody>
<tr>
<td>Per Acre Cwt.</td>
<td>Per Acre Cwt.</td>
</tr>
<tr>
<td>7.50</td>
<td>33.61</td>
</tr>
<tr>
<td>1.26</td>
<td>3.60</td>
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<tr>
<td>5.40</td>
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<tr>
<td>4.80</td>
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<td>3.75</td>
<td>2.10</td>
</tr>
<tr>
<td>2.00</td>
<td>2.00</td>
</tr>
<tr>
<td>** TOTAL PRE-HARVEST LABOR AND MATERIAL COST **</td>
<td>** $32.00 **</td>
</tr>
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</table>

PRE-HARVEST LABOR AND MATERIAL COSTS

Land preparation - man and tractor - 3 hrs.
Planting - 2 men - light tractor - .5 hr.
Seed - 20 pounds @ 18¢
Irrigate - 1 pre and 3 crop - 6 man hrs.
Water - 2-acre feet - power
Hoeing - none to 6 hrs. - average 4
Cultivate - 3x - man and tractor - 1 1/2 hrs.
DVT - 30 pounds @ 8¢
Miscellaneous labor and material cost

TOTAL PRE-HARVEST LABOR AND MATERIAL COST

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**TIME TO PUNT** - May 12 to about July 1st.

**PLANTING MATERIAL** - Watermelon, cantaloupe, melons are good choice. Watermelon seed is probably the best but many other types do equally well.

**DEPT TO PLANT** - Three to five inches in most soils.

**AGE** - Twelve to twenty pounds per acre planted in rows 30 to 36 inches apart.

**YIELD** - Acre yields, 500 to 750 lbs of fruit per acre.

**CULTURE** - In place of cantaloupe, watermelon should be prepared at one to two feet deep planted. Plant into the furrow near the surface is a must. If rains following planting occurs, pre-drilled with ample water, a well-irrigated seed bed, pre-irrigated with ample water, is necessary. The water is not necessary, but may be beneficial. The seed should be planted in furrows, 2 to 3 inches deep, 1 to 2 inches apart. The furrows should be 12 to 16 inches apart.

**IRRIGATION** - Irrigation is applied too late may cause growing stress. Irrigation should be applied early in the season and then again at 14 days after planting. The first irrigation should be applied when the blooms are opening. The second irrigation will be applied if blooming has been interrupted due to lack of water. The first irrigation should be applied at the rate of 1 inch per week. The second irrigation will be applied at the rate of 2 inches per week.

**LAND PREPARATION AND PLANTING**

<table>
<thead>
<tr>
<th>Variety</th>
<th>Rates per Sack</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hybrid</td>
<td>14.25</td>
<td>Hybrid</td>
</tr>
<tr>
<td>Improved</td>
<td>12.50</td>
<td>Improved</td>
</tr>
<tr>
<td>Older</td>
<td>10.25</td>
<td>Older</td>
</tr>
</tbody>
</table>

(continued on next page)
INTEREST ON INVESTMENT @ 5%

Irrigation facilities - tillage and other Equip. at one-half original cost $60.
Land @ $400 per acre
TOTAL INTEREST ON INVESTMENT
TOTAL COST OF PRODUCTION

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

GROWING BLACKEYE BEANS IN KINGS COUNTY

O. D. McEachen, Farm Advisor
May, 1955

Blackeyes are not tolerant of alkali. Marginal soils containing alkali planted to Blackeyes will be disappointing. A medium soil (loam to loamy sand) is preferred. Heavy soils seem to cause excessive 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. Blackeye use less water than cotton. About two acres per foot is required here in our area.
SOURCES OF MATERIAL

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