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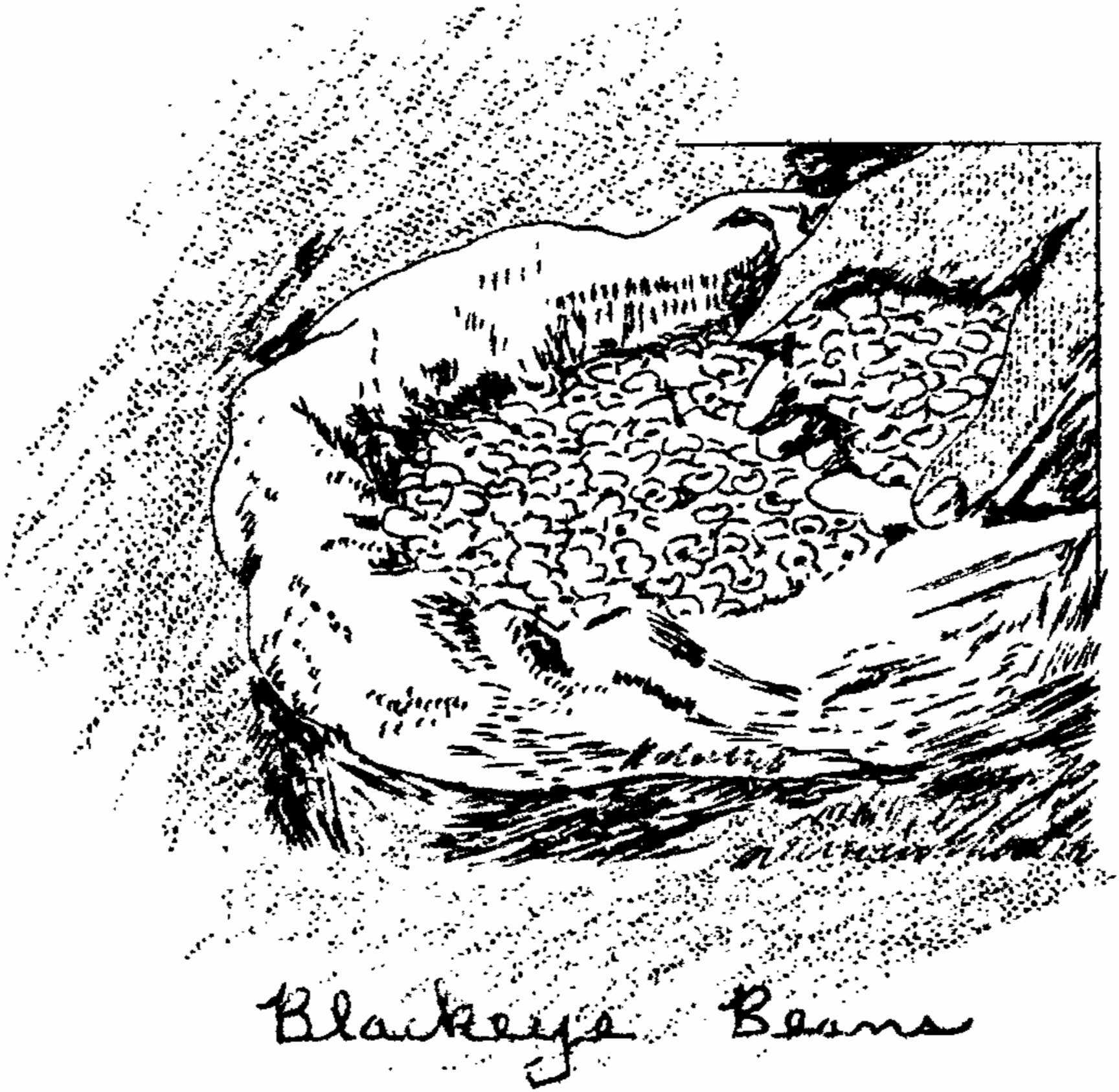
BLACKEYE BEANS IN KINGS COUNTY

University of California
Agriculture Extension Service
Kings County



UC Cooperative Extension

GROWING BLACKEYE BEANS IN KINGS COUNTY

by
O. D. McCutcheon, Farm Advisor
May, 1955

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.

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 - Venturia bean planter is probably best but many other types do a satisfactory job.

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

SEED TREATMENT--------Use Semesan, Arasan or Spergon 3 ounces per 100 pounds of seed, plus lindane 75% material 1/3 - 2/3 ounces per 100 pounds of seed.

INOCULATE----------Since few beans have been planted in Kings county it would seem well to inoculate. Use cowpea inoculant "Rhizobia". After inoculating, keep the bean out of the heat and cover the hoppers while planting. This prevents the inoculant from becoming sterile, as sun and heat causes it do die rapidly. Inoculation is normally not necessary if beans have been planted before.

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 Treble Super Phosphate.

DISEASES---------- Fields may show spots of diseased plants which are likely to be the dampning 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 incident of disease down somewhat. Cowpea

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.

May 1951

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 Acre	Per Cwt.	Per Acre	Per Cwt.
PRE-HARVEST LABOR AND MATERIAL COSTS				
Land preparation - man and tractor - 3 hrs.	7.50			
Planting - 2 men - light tractor - .4 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	4.00			
Hoeing - none to 6 hrs. - average 4	3.60			
Cultivate - 3x - man and tractor - 1½ hrs.	3.75			
DDT - 30 pounds @ 8¢	2.40			
Miscellaneous labor and material cost	2.00			
TOTAL PRE-HARVEST LABOR AND MATERIAL COST	33.61	$2.10		

HARVESTING COSTS

Cut and windrow - man and tractor per hr.	2.50	
Combine - contract @ $.80 per cwt.	12.80	
Hauling - roadsiding and to warehouse @ $5.50/ton	4.40	
Reclean - fumigate and storage @ $9.50/ton	7.60	
Sacks - 16 @ $.20/ sack	3.20	
TOTAL HARVESTING COSTS	$30.50	$1.91

CASH OVERHEAD COSTS

General expense - Office, phone etc. (5% of above)	3.21	
County taxes	4.00	
Misc., Insurance & cash costs and repairs	2.00	
TOTAL CASH OVERHEAD COSTS	$ 9.21	$ .57
TOTAL CASH LABOR AND FIELD POWER COSTS	$73.32	4.58

DEPRECIATION

Irrigation facilities (original cost $60)	4.50	
Equipment (except tractor & combine) 10 yr. life	2.00	
TOTAL DEPRECIATION	$6.50	$ .41

(continued next page)

Probable Cost to Grow Blackeyes in Kings County (Continued)

	SAMPLE COSTS Per Acre	SAMPLE COSTS Per Cwt.	MY COSTS Per Acre	MY COSTS Per Cwt.
INTEREST ON INVESTMENT @ 5%				
Irrigation facilities - tillage and other Equip. at one-half original cost $60.	$ 3.00			
Land @ $400 per acre	$ 20.00			
TOTAL INTEREST ON INVESTMENT	$ 23.00	$1.44		
TOTAL COST OF PRODUCTION	$102.82	$6.43		

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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.

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

Blackeye Beans in California - Bulletin No. 696, February, 1946 - by W. W. Mackie

Conversations with Chester Conley, Farm Advisor, Merced County