

BLACKEYE COSTS & GENERAL HINTS ON PRODUCTION

By Douglas J. Munier, Farm Advisor

Soil Requirements

Blackeyes are best adapted to light sandy loam soils. They grow satisfactorily on well drained heavy soils but the yields are usually less than on the lighter soils. Saline and alkali soils should be avoided.

Variety

The most common variety grown in Kern County is California Blackeye 5. Blackeye 3 is the major variety in the northern San Joaquin Valley. Blackeye 3 and its prostrate growth habit makes it difficult to irrigate as it matures. It is best to plant certified seed to be assured of quality.

Seed Treatment

If untreated seed is planted, seedling diseases can seriously affect stand and yield. Practically all seed is treated commercially with a fungicide and insecticide at the warehouse before sold.

Preparation of Soil

A well prepared seedbed is essential for a good stand. Overworking the soil is not necessary but if compaction is present, then chiseling should be done. Pre-irrigation is necessary to provide sufficient moisture for germination and early growth of the crop. Deep furrows should be avoided to assure minimum losses of beans during the harvest operations.

Row Spacing and Planting

Row spacing ranges from 30 to 40 inches. The most common is 30 inches and the best yields are obtained at that spacing. Care must be taken not to crack the seed when planting since

this will reduce germination. In-row spacing should be about 4 to 6 inches.

Planting Rate

Thirty to 35 pounds of seed per acre should be sufficient with the higher seeding rate to be used when seedbed conditions are unfavorable.

Planting Time

The best yields are obtained from full season production. Planting time would be during May, however, when double cropping the planting date may extend to July 15. Reduced yields may be expected from these later plantings.

Planting Depth

For maximum germination seeds should be placed at least one inch in moist soil. If planted late when soils dry faster, then plant a little deeper--about 1-1/2 inches into moist soil.

Fertilization

Nitrogen, phosphorus and potassium treatments rarely affect blackeye production. In phosphorus deficient soils applications of phosphorus fertilizers have proved beneficial. Usually 80 to 100 pounds of $P_{2}O_{5}$ are adequate when phosphorus is needed.

Irrigation

Over-irrigation of blackeyes should be avoided. When over-irrigated, iron deficiency is induced and fungus diseases are favored. During seed pod formation ample water must be supplied for maximum yield. Irrigation should stop when pods have stopped setting and the plant is defoliating.

Cultivation

Cultivation is for weed control and if no weeds are present, then do not cultivate. If you do cultivate, depth of cultivation should be as shallow as possible to avoid root pruning and excessive moisture loss.

Pests and Diseases

Lygus Bugs - Lygus bugs feeding on the flowers and green pods are usually the most damaging pest to blackeyes. When blackeyes start to bloom and set pods, 10 two-row sweep counts should be taken at several locations in the fields. When the count reaches one-half lygus per sweep, control measures should be taken immediately.

It is important to check lygus frequently and regularly because lygus populations can increase rapidly.

Mites - Blackeyes have fair tolerance to mites but occasionally do require treatment.

Nematodes - *Meloidogyne javanica* causes plants to wilt because their feeding on the roots do not allow these tissues to translocate sufficient water and nutrients from the soil. The nematode infested roots show galls and other distortions.

Fusarium wilt

Fusarium wilt is by far the most common and serious disease of blackeyes. When this disease is present, the stem becomes swollen with a black interior. Infected plants turn yellow and shed some of their bottom leaves. There is no control of this disease and infections remain in the soil for many years.

Harvesting

Harvest begins when most of the pods have turned yellow. Cutting and windrowing should start when the pods are tough enough to keep shatter losses at a minimum. Threshing should be done carefully so as not to damage the seed.

Yield

On good soil with proper management yields from 2,000 to 3,500 pounds per acre in a normal season may be expected.

1986 COSTS OF PRODUCTION FOR BLACKEYES IN KERN COUNTY

COST ANALYSIS WORKSHEET

The following costs are based on very competitive custom farming rates. An individual grower's costs may be lower or higher, depending on the cost of his equipment and the degree of utilization. In most cases, a grower could do his own operations in a more timely manner than a custom operator who must satisfy many customers. Manual labor costs are calculated at \$5.50 per hour including all benefits.

	<u>Sample Costs/Acre</u>	<u>My Costs</u>
<u>Pre-harvest Cash Costs</u>		
Disk - 1 time 32" stubble (\$17) and 1 time 22" finish (\$8)	\$ 25.00	
Furrow out	9.00	
Pre-irrigate - 6" @ \$30/acre-ft., 1 hr. labor	20.50	
Plant - 35 lbs/acre @ 35¢/lb. and \$10 planting	22.00	
Fertilizer - 40 lbs. P ₂ O ₅ if needed plus \$3 application \$15.00	-	
Cultivate - three	24.00	
Insect Control	30.00	
Herbicide - \$15.00 material and \$5.00 application	20.00	
Irrigate - 3 acre-ft. @ \$30/acre-ft., 4 hrs.	112.00	
Miscellaneous office and bookkeeping - 4% cash costs	8.00	
Interest on operating capital - @ 15% for 6 months	22.00	
TOTAL PREHARVEST CASH COSTS	296.50	
<u>Harvest Costs:</u>		
Cutting and windrowing	26.00	
Threshing - \$15/acre plus \$1.50/cwt.	67.50	
Hauling - 37¢ cwt.	13.00	
<u>Land Costs</u>		
Rent - including taxes	125.00	
<u>Depreciation and Interest</u> (included in above costs)	-	
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TOTAL COST OF PRODUCTION (\$15.00 @ 35 cwt/acre)	\$528.00	