

1988 BLACKEYE COSTS & GENERAL HINTS ON PRODUCTION

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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 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 where fusarium wilt is common. 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 it is 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 range from 30 to 40 inches. The best yields are obtained at the 30 inch row 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-five to 40 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 should 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 fertilizers rarely affect blackeye production. In very phosphorus deficient soils applications of phosphorus fertilizers have sometimes proved beneficial. Usually 80 to 100 pounds of P_{205} are adequate when phosphorus is needed.

Irrigation

Over-irrigation of blackeyes should be avoided. When over-irrigated, iron deficiency is induced and fungal 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.