SOYBEANS

costs of production

suggestions on growing

UNIVERSITY OF CALIFORNIA
FARM AND HOME ADVISORS' OFFICE
KERN COUNTY
REVISED FEBRUARY, 1960
UC Cooperative Extension
SUGGESTIONS ON GROWING SOYBEANS

BY

ROY M. BARNES, FARM ADVISOR

SOIL REQUIREMENTS:

THE SOYBEAN WILL SUCCEED ON NEARLY ALL TYPES OF SOIL BUT BEST RESULTS ARE OBTAINED ON FERTILE LOAMS OR SANDY LOAMS. IN GENERAL, THE SOIL REQUIREMENTS ARE ABOUT THE SAME AS FOR CORN AND COTTON.

USE OF SOYBEANS:

SOYBEANS ARE GROWN FOR THREE PURPOSES; DRY BEAN PRODUCTION, FORAGE AND FOR A COVER CROP.

VARIETIES:

THERE ARE MORE THAN 100 NAMED VARIETIES NOW BEING HANDLED BY SEEDMEN, AND THEY ARE UNDER TEST BY USDA AND STATE EXPERIMENT STATIONS. SOYBEAN VARIETIES ARE GROUPED INTO EARLY OR LATE, DEPENDING UPON WHEN THEY RIPEN. IN KERN COUNTY TESTS HAVE SHOWN THAT CLARK, LINCOLN AND BLACKHAWK, IN THAT ORDER, WERE WELL SUITED FOR THIS CLIMATE. THEY ALL RIPEN AT THE SAME TIME.

BECAUSE OF SUPERIORITY IN YIELD AND OTHER OBSERVATIONS MADE DURING GROWTH AND HARVEST, CLARK VARIETY CAN BE RECOMMENDED FOR COMMERCIAL SEED PRODUCTION.

SEED TREATMENT:

FOR SEED DECAY, TREAT WITH ARASON SFX 1 1/3 oz. (SLURRY) PER 100 LBS. OF SEED, OR SPERGON 3 oz. (DUST) OR SPERGON SL 2 oz. (SLURRY).

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READ BEFORE FOLLOWING PEST CONTROL RECOMMENDATIONS IN THIS PUBLICATION.

The recommendations in this publication for the use of any of the following types of chemicals—*insecticides, fungicides, herbicides, rodenticides, nematicides, plant growth regulators, dessicants or defoliants*—in crop production or protection may no longer be valid. Since this publication was originally issued, new information has been developed and new regulations have been put into effect in respect to the use of these chemicals. This information is now available in the current University of California pest control recommendations distributed by the farm advisors' offices in each county or the University Public Service Offices.

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For wireworm and seed corn maggot, treat with Lindane 0.66 ozs. of the 75% spray or dust per 100 lbs. of seed. Fungicide and insecticide should be applied together.

PREPARATION OF SOIL AND PLANTING:

A well prepared seedbed is essential for a good stand. Pre-irrigation is essential to provide sufficient moisture to germinate the seed and to promote normal early growth.

Rows are usually spaced 24 to 32 inches apart. In-the-row spacing should be about 1 inch (12 seeds to the foot). A two or four row plate-type planter is commonly used.

PLANTING RATE:

Sixty to seventy lbs. per acre are sufficient when planted in 24 or 32 inch rows.

PLANTING TIME:

In Kern County, April 15 to May 20 is a good time to plant soybeans.

PLANTING DEPTH:

The depth of planting should not exceed 2 1/2 inches.

FERTILIZATION:

Soybeans are a legume and normally the application of nitrogen is not necessary. If phosphate is now being used on cotton or other crops in your area, the application of from 80 to 100 lbs. of P2O5

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**COSTS TO PRODUCE SOYBEANS IN KERN COUNTY**

Based on man labor at $1.00 and $1.30 per hour; 30 H.P. WHEEL TRACTOR CASH COST PER HOUR $1.00; DEPRECIATION $44; INTEREST $1.19

* Roy M. Barnes  
** Burt B. Burlingame

<table>
<thead>
<tr>
<th>Operation</th>
<th>Hours Per Acre</th>
<th>Cash and Labor Cost Per Acre</th>
<th>Material and Other Costs</th>
<th>Sample Costs</th>
<th>My Costs</th>
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<td></td>
<td>Labor</td>
<td>Fuel and Repairs</td>
<td>Equipment</td>
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<td>Land Preparation</td>
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<td>Irrigate: 1 pre 6 crop</td>
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**Costs at Varying Yields**

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<th>Pounds Per Acre</th>
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<th>Cost Per CWT</th>
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<td>1,500</td>
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<td>3,500</td>
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**Investment**  
Land: $300.00  
Irrigation Facilities: $200.00  
Tractor 5 1/2 Hrs: $20.00  
Equipment: $20.00

**Annual Cost**  
Depreciation: $18.00  
Interest: $10.00  
Total Annual Cost: $19.26  
Total Cost per Acre: $55.65  
Cost per CWT @ 2,500 lb. Yield: $74.91

**TOTAL COST PER ACRE**  
$156.61

**Extension Economist in Farm Management**

* Farm Advisor

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MAY BE PROFITABLE. PHOSPHATE SHOULD BE APPLIED
ONLY IF IT HAS BEEN PROVEN DEFICIENT BY ACTUAL
TESTS.

IRRIGATION:

THE PLANTS SHOULD BE FULLY SUPPLIED WITH WATER
DURING GROWTH. IRRIGATION SHOULD NOT BE POSTPONED
UNTIL THE PLANTS SUFFER. NORMALLY IT WILL REQUIRE
ABOUT 8 CROP IRRIGATIONS.

CULTIVATION:

CULTIVATION IS TO DESTROY WEEDS ONLY. IF NO WEEDS
GROW CULTIVATION IS OF NO MEASURABLE BENEFIT.
UNNECESSARY CULTIVATION MAY DESTROY FEEDER ROOTS
GROWING CLOSE TO THE SURFACE, THUS REDUCING YOUR
CROP.

HARVESTING:

HARVESTING BEGINS SOON AFTER THE LEAVES DROP FROM
PLANTS AND THE PODS HAVE TURNED BROWN. SHATTER
MAY OCCUR IF HARVEST IS PROLONGED BEYOND THIS POINT.
SOYBEANS CAN BE DIRECT COMBINED.

YIELDS:

ON GOOD SOIL AND WITH PROPER MANAGEMENT, SOYBEAN
YIELDS OF FROM 2,000 TO 3,000 LBS. PER ACRE MAY
BE EXPECTED IN A NORMAL SEASON.

DISEASES:

SOYBEANS ARE SUSCEPTIBLE TO THE ROOT ROTS WHICH ARE
COMMON TO OTHER BEANS.
INSECTS:

SOYBEANS SHOULD NOT BE PLANTED ON NEMATODE INFESTED LAND. IT MAY ALSO BE NECESSARY TO TREAT FOR SPIDER MITES IF THEY BECOME INFESTED IN EARLY GROWTH.

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