BARLEY

costs of production

suggestions on growing

UNIVERSITY OF CALIFORNIA
AGRICULTURAL EXTENSION SERVICE
KERN COUNTY
REvised DECEMBER, 1956

UC Cooperative Extension
PLANTING RATE:

On irrigated land; early planting close drilled; 75 to 80 lbs. per acre is sufficient. On irrigated land, late planting close drilled, 90 to 96 lbs. per acre. On non-irrigated land; close drilled 50 lbs. per acre. Usually one-fourth more seed is required when broadcast.

PLANTING TIME:

Late October to February 1st.

PLANTING DEPTH:

The depth of planting should be governed by type of soil and soil moisture. In most cases, 2 1/2 inches is sufficient.

FERTILIZATION:

Unless barley is to follow alfalfa or other truck crops where there is a large amount of nitrogen left in the soil, nitrogen fertilizer is needed in most soils in the county to produce maximum yields. Sixty lbs. of nitrogen (300 lbs. of ammonium sulfate or its equivalent) is recommended. If phosphate is now being used on other crops in the area, then 80 lbs. of

SUGGESTIONS ON GROWING BARLEY
 Roy M. Barnes - Farm Advisor

SOIL REQUIREMENTS:

Barley is adapted to most Kern County soils and is a good crop to grow on alkali land.

VARIETY:

Atlas 46, Arriat, California Mariout, and Club Mariout are the varieties recommended for Kern County. Atlas 46 is a variety well suited for malting purposes and is resistant to mildew and scald. Arriat, California Mariout, and Club Mariout are grown for feed. Atlas 46 and Club Mariout mature at mid-season and are suited to early plantings. Arriat and California Mariout mature 5 to 12 days earlier and are suited for late plantings. California Mariout will do well on alkali soils. Always plant certified seed to give the crop all the advantages at the beginning.

SEED TREATMENT:

Seed should be treated to guard against smut and stripe. One ounce per 100 lbs. of grain of New Improved Ceresan is recommended.

PREPARATION OF SOIL AND PLANTING:

On irrigated land, the soil should be worked to be firm—much the same as alfalfa. Pre-irrigation is always best to insure ample moisture.

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WHAT IT COSTS TO GROW IRRIGATED BARLEY IN KERN COUNTY
BASING ON A YIELD OF 4,000 LBS. PER ACRE
(BULK HANDLED)

Roy M. Barnes*  
Burt Burlingame**

MAN LABOR @ $.95, MEDIUM TRACTOR @ $1.60 PER HOUR

<table>
<thead>
<tr>
<th>Sample Costs</th>
<th>My Costs</th>
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<td><strong>Per Acre</strong></td>
<td><strong>Per Cwt.</strong></td>
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PREHARVEST LABOR AND MATERIAL COSTS:

Prepare land—plow, disc, harrow; 2 hrs. man & tractor  
Plant: man and tractor .33 hr.  
Seed: 80# @ $5 cwt. treated  
Irrigate: 1 pre and 2 crop, 4 man hrs.  
Irrigation water: 1 1/2 acre-feet @ $5.00  
Fertilizing: No additional labor cost  
Fertilizer: 60 pounds nitrogen @ 15#  
Total preharvest labor and material cost  

Harvesting Costs:

Combine: contract  
Haul out: contract @ $2 per ton  
Total harvesting cost  

Cash Overhead Costs:

General expense, car, phone, etc.  
County taxes  
Repairs, insurance, etc.  
Total cash overhead cost  

Total cash, labor and field power costs  

Depreciation:

Irrigation system: $200 cost  
Tillage equipment: drill, etc. $15, 10 yr. life  
Total depreciation cost  

Interest on investment at 5%:

Irrigation system, tillage equip., etc. on 1/2 orig. cost  
Land @ $500 per acre  
Total interest on investment  

Total cost of production  

* Farm Advisor  
** Extension Economist  
Farm Management

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Income from any pasture or straw should be deducted from total cost to obtain the net cost of producing the barley.

If double-cropped, total cost of production would be reduced by the proportion of taxes, repairs, depreciation and interest costs to the other crop.

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DURING GERMINATION AND THROUGH THE STOOLING PERIOD. THE SAME PREPARATION IS MADE TO THE LAND WHICH IS NON-IRRIGATED, EXCEPT PLANTING USUALLY FOLLOWS ONE YEAR OF SUMMER FALLOW. IN EITHER CASE, PLANTING MAY BE DONE WITH A GRAIN DRILL OR BROADCAST.

PLANTING RATE:

ON IRRIGATED LAND; EARLY PLANTING CLOSE DRILLED, 75 TO 80 LBS. PER ACRE IS SUFFICIENT. ON IRRI-
GATED LAND; LATE PLANTING CLOSE DRILLED, 90 TO
96 LBS. PER ACRE. ON NON-IRRIGATED LAND; CLOSE
DRILLED 50 LBS. PER ACRE. USUALLY ONE-FOURTH
MORE SEED IS REQUIRED WHEN BROADCAST.

PLANTING TIME:

LATE OCTOBER TO FEBRUARY 1ST.

PLANTING DEPTH:

THE DEPTH OF PLANTING SHOULD BE GOVERNED BY TYPE OF SOIL AND SOIL MOISTURE. IN MOST CA-
SERS, 2 1/2 INCHES IS SUFFICIENT.

FERTILIZATION:

UNLESS BARLEY IS TO FOLLOW ALFALFA OR OTHER TRUCK CROPS WHERE THERE IS A LARGE AMOUNT OF NITROGEN LEFT IN THE SOIL, NITROGEN FERTILIZER IS NEEDED IN MOST SOILS IN THE COUNTY TO PRODUCE MAXIMUM YIELDS. SIXTY LBS. OF NITROGEN (300 LBS. OF AMMONIUM SULFATE OR ITS EQUIVALENT) IS RECOMMENDED. IF PHOSPHATE IS NOW BEING USED ON OTHER CROPS IN THE AREA, THEN 80 LBS. OF.

SUGGESTIONS ON GROWING BARLEY
Roy M. Barnes - Farm Advisor

SOIL REQUIREMENTS:

BARLEY IS ADAPTED TO MOST KERN COUNTY SOILS AND IS A GOOD CROP TO GROW ON ALKALI LAND.

VARIETY:

ATLAS 46, ARIVAT, CALIFORNIA MAJORUT, AND CLUB MAJORUT ARE THE VARIETIES RECOMMENDED FOR KERN COUNTY. ATLAS 46 IS A VARIETY WELL SUITED FOR MALTING PURPOSES AND IS RESISTANT TO MILDWHE AND SCALD. ARIVAT, CALIFORNIA MAJORUT, AND CLUB MAJORUT ARE GROWN FOR FEED. ATLAS 46 AND CLUB MAJORUT MATURE AT MID-SEASON AND ARE SUITED TO EARLY PLANTINGS. ARIVAT AND CALIFORNIA MAJORUT MATURE 5 TO 12 DAYS EARLIER AND ARE SUITED FOR LATE PLANTINGS. CALIFORNIA MAJORUT WILL DO WELL ON ALKALI SOILS. ALWAYS PLANT CERTIFIED SEED TO GIVE THE CROP ALL THE ADVANTAGES AT THE BEGINNING.

SEED TREATMENT:

SEED SHOULD BE TREATED TO GUARD AGAINST SMUT AND STRIPE. ONE OUNCE PER 100 LBS. OF GRAIN OF NEW IMPROVED CERESAN IS RECOMMENDED.

PREPARATION OF SOIL AND PLANTING:

ON IRRIGATED LAND, THE SOIL SHOULD BE WORKED TO BE FIRM--MUCH THE SAME AS ALFALFA. PRE-IRRIGA-
TION IS ALWAYS BEST TO INSURE AMPLE MOISTURE.
ACTUAL PHOSPHATE (200 LBS. TREBLE SUPER PHOSPHATE) WOULD BE SUFFICIENT.

IRRIGATION:

BARLEY IS A LIGHT USER OF WATER, BUT SHOULD HAVE IT AT THE PROPER TIME IN GROWTH. THE IRRIGATION GIVEN PRIOR TO SEEDING SHOULD PROVIDE SUFFICIENT MOISTURE TO GERMINATE THE SEED AND CARRY THE CROP BEYOND THE STOOLING STAGE. TO PREVENT LEACHING MUCH OF THE NITROGEN BELOW THE ROOT ZONE AND TO PROMOTE A VIGOROUS ROOT GROWTH, IT IS BEST NOT TO IRRIGATE, IF POSSIBLE, DURING EARLY GROWTH. THE GREATEST NEED FOR MOISTURE COMES WHEN THE HEAD IS IN THE BOOT. SMALL GRAIN PLANTS OBTAIN VERY LITTLE MOISTURE BELOW A DEPTH OF TWO FEET, THEREFORE, DEEP IRRIGATION IS NOT NECESSARY. LESS MOISTURE IS REQUIRED AFTER KERNEL IS FORMED.

HARVESTING:

GRAIN CAN BE SAFELY STORED WHEN THE MOISTURE CONTENT REACHES 15% OR UNDER.

YIELDS:

WITH PROPER CARE, A YIELD OF 4,000 LBS. PER ACRE, OR BETTER, MAY BE OBTAINED.