

COTTON CULTURE —

SUGGESTIONS FOR
IMPERIAL COUNTY

by your

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COTTON CULTURE

(Suggestions for Imperial County)*

PRE-PLANT AND PLANTING PERIOD

1. Land Preparation

- a) Work up and flood irrigate from 45 to 60 or more days ahead of planting date.
- b) Re-work, list, fertilize, and then irrigate for moisture. (Put in all of phosphate and about 1/3 nitrogen you have decided to use.)
- c) Mulch beds and plant in moisture.

2. Planting

- a) Plant 18-24 pounds seed treated to protect against fungi and against soil borne insects such as seed corn maggot. SEE: "Cotton Seed Treatment-- R. A. Kortsen."
- b) Plant deep enough to be assured of moisture, but usually less than two inches deep. (If you decide to "irrigate up", plant very shallow.)
- c) Be sure all weeds are destroyed in mulching. (Double mulching with 3 or 4 days between mulchings may help.)

EARLY SEASON

1. Early season insect control

- a) Cutworms
 - b) Thrips
 - c) Grasshoppers
 - d) Mites
- SEE: "1954 Suggested Cotton Insect Control for Imperial County."

2. Fertilization

- a) Phosphate (if used) is best put on ahead of planting. Rate: 40-80 pounds actual P₂O₅ per acre.
- b) Plan on placing all your nitrogen in side of beds in two applications. 1/3 ahead of planting and remainder when plants about foot high (N and P₂O₅ preplant may be applied together as one application or separately as two. On sandy soils more than two applications may be desirable.)
- c) Rate of nitrogen will depend on many factors but 100 to 160 pounds actual nitrogen should give satisfactory yields. (In 3 bale cotton crop at Brawley USDA Station 1953, the lint, seed, stalks, and leaves together analyzed 60-70 pounds actual N per bale of cotton produced.)
- d) Be sure to keep nitrogen far enough away from seed or plant so that the nitrogen will not burn or injure plants.

* These suggestions are based upon experimental results and field observations in this and adjacent areas during the past several years.

3. Early Season Irrigation

- a) Plants are small and temperatures moderate. Water use is low. Irrigate often enough to prevent wilting. If spring is warm, irrigate more frequently than if cool.
- b) Excessive water will encourage weeds and water grass but should not help nor hurt the cotton plants.
- c) Plants taller than normal may result from keeping plants too dry early followed by adequate watering rest of season. Also poor early insect control.

4. Weed Control

- a) Plant on clean ground!
- b) Do not irrigate more than is necessary to keep plants from wilting.
- c) Plant to good stands of close spaced plants.
- d) Cultivate and weed early. Cover weeds in seed row by throwing soil to plants. (Chemical weed control and flaming give promise but cannot be entirely relied upon as yet.)
- e) If weeds are a problem, cultivate until plants become too big or tangled for tractor to get through without excessive damage. Shielded tractors and wheels will help prevent damage and enable you to cultivate later.

MID-SEASON TO HARVEST

1. Mid to Late Season Pests of Cotton and their Control

SEE: "1954 Suggested Cotton Insect Control for Imperial County."

2. Mid to Late Season Irrigation and Fertilization

- a) For maximum yield plants must not be allowed to wilt. This includes mid-day wilt.
- b) Continue irrigation into early October.
- c) If definite need of additional nitrogen is indicated, fertilizer application should be beneficial up to about middle of August.
- d) If late fertilizer applications are made 30-40 pounds actual N or more per acre may be required before much improvement can be expected.
- e) Need of nitrogen fertilizer is most generally indicated when new leaves become light green or older leaves become yellow green (yellow in extreme cases of N deficiency).
- f) Need of phosphate ordinarily can not be detected by any visual signs. Decide ahead of planting whether you will or will not use phosphate. If you are going to use phosphate, put it on AHEAD OF PLANTING! Phosphating in mid or late season is not thought to be beneficial.
- g) Periodic chemical testing of plant tissue for nitrogen may be a help in anticipating a need for additional nitrogen.

3. Chemical Weed Control

No general success.

All chemical weed control for this area is still thought to be experimental although in special cases weed control has been considered satisfactory.

4. Defoliation and Harvest

- a) At least one early hand pick has generally been accepted as desirable--this to be as early in season as practical.
- b) Do not spread the first pick over too many days and allow plants to wilt severely. Pick with large crew and "get in and get out" so as not to delay irrigations or pick with smaller crew and irrigate "behind" them.
- c) Boll rot has not been extensive here as compared to other areas and the later pickings may be delayed so that the second pick will complete the harvest except for a possible "clean up".
- d) Defoliate in preparation for machine harvest.
- e) Do not defoliate when large number of immature bolls are still on plant.