

COOPERATIVE EXTENSION WORK IN AGRICULTURE
AND HOME ECONOMICS

Agricultural and Mechanical College of Texas and United States
Department of Agriculture Cooperating

L-6

1937

IMPORTANT STEPS IN GROWING COTTON

By E. A. Miller, Extension Agronomist

1. Terrace the land if it is subject to washing. In west Texas it pays to terrace the land which is practically level, as well as that which is sloping.

2. Prepare the land well by bedding and rebedding, or by flat breaking and bedding in east Texas, and by deep listing or flat breaking in west Texas.

3. Fertilize with commercial fertilizer, or manure, or with both on the sandy and sandy loam soils of east, north, central, and south Texas. In west Texas, and on the black waxy land of central and north Texas, commercial fertilizers have not proved profitable in most cases.

4. Plant good, well bred seed of a variety adapted to the locality. It will be still better if every farmer in a gin-community will plant the same variety.

5. Plant at the usual time that cotton is planted in the locality. The soil should be warmed up sufficiently to insure rapid and uniform germination of the seed.

6. Plant one bushel of seed per acre, except in the western and northwestern parts of the state, where smaller amounts are usually planted. Maximum yields cannot be made without a good stand. According to recent experiments, it is good crop insurance to treat cottonseed with common ceresan at the rate of 3 ounces per bushel, thereby obtaining a better stand if soil conditions are unfavorable, and reducing the damage from anthracnose and sore shin. The increase in yield varied from an average of 4% at the Lubbock Sub-Station to an average of 25% at College Station. The seed should be treated in a tight container arranged so that it can be revolved on an axis.

7. In east Texas, plant the cotton on a bed, and in west Texas plant in the lister furrow. Plant the seed from one to two inches deep, the depth depending upon the condition of the soil and the amount of moisture present.

8. Chop the cotton when it has from 4 to 6 leaves. A distance of about 12 inches between the plants gives good results.

9. Cultivate shallow, not more than 2 to 3 inches deep, and frequently enough to destroy grass and weeds. Cultivating too deep injures the plants and often causes shedding. Do not cultivate too late in the season as it often causes shedding.

10. Poison for insects if necessary, especially for leaf worm.

11. Harvest the cotton early because profits are often greatly reduced by allowing the cotton to be exposed to the weather.

12. Sow a cover and grazing crop in early fall wherever adapted, consisting of (1) oats, rye, and hairy vetch; or (2) oats, barley, and hairy vetch to be turned under in the spring for improving the soil fertility.

We recommend that commercial fertilizer for cotton be used at the rate of from 200 to 300 lbs. per acre on

average sandy and sandy loam soils of the timbered sections of east Texas, and from 100 to 200 lbs. per acre on the sandy land in the drier sections. The amount will depend upon the type of soil and its physical condition, including the amount of organic matter, and also upon the grade of fertilizer used. A proportionately smaller amount of extra high analysis fertilizer should be used than with a low analysis fertilizer. On extra good types of soil that are drouth-resistant, these amounts may be increased, whereas on the poor washed-off hillsides, less should be used. On the latter the cotton cannot stand as much dry weather and hence large amounts of fertilizer will not be profitable.

Either factory-mixed or home-mixed fertilizer may be used. Some good formulas for cotton for sandy soil are 4-8-4, and 6-12-6 which have a 1-2-1 ratio of plant food. These are high grade mixtures.

If cotton rust is prevalent on sandy soils, fertilizers with high potash content should be used.

The following combinations having approximately a 1-2-1 ratio of plant food are suggested for home-mixed fertilizers:

- 200 lbs. nitrate of soda.
1. 300 lbs. 20% superphosphate.
50 lbs. muriate of potash.

- 150 lbs. sulphate ammonia.
2. 300 lbs. 20% superphosphate.
50 lbs. muriate of potash.

- 400 lbs. cottonseed meal.
3. 200 lbs. 20% superphosphate.
50 lbs. muriate of potash.

- 200 lbs. cottonseed meal.
4. (100 lbs. nitrate of soda or
(75 lbs. sulphate of ammonia.
200 lbs. 20% superphosphate.
50 lbs. muriate of potash.

The mixtures containing sulphate of ammonia should be applied the same day they are made or otherwise they will harden. The mixtures containing nitrate of soda, should also be applied as soon as possible after mixing, as they may absorb moisture which makes them harder to distribute.

All the fertilizer should be applied before planting where the above amounts are used, except that a side dressing of from 100 to 150 lbs. per acre of a good grade nitrogen fertilizer should be made on deep sandy soils which are subject to leaching and on sandy loam soils where insufficient nitrogen is used in the fertilizer applied under the cotton. The side dressing should be made 6 to 8 inches from the plants, either by hand or with a distributor, immediately after the cotton has been chopped.

The usual method of applying fertilizer before planting, where the land has been bedded, is to apply it in the middles about a week or 10 days before planting and then re-bed on top of it. When ready to plant, the bed should be dragged down so that the seed when planted will be about two inches above the fertilizer.

Recent experiments show that the best method of applying fertilizer is to place it about three inches to the side of the seed, and 2 to 3 inches below the level of the seed, by means of a fertilizer attachment on the planter.