Sprays Give Best Control of
Cotton Leaf Perforator

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Arizona cotton has suffered increasingly in recent years from defoliating attacks of the cotton leaf perforator. The green tissues may be almost completely destroyed, leaving only a dried leaf skeleton which often appears as though pierced with buckshot. Early season damage is most common in and near fields of stub cotton, although infestations are more generally distributed by mid-season.

A cotton leaf showing severe leaf perforator injury.

The adult of the cotton leaf perforator is a small white and straw-colored moth. The small newly-hatched larvae make tunnels within the leaves while older larvae feed externally on surfaces of leaves and boll bracts. White, ribbed pupal cocoons, about a quarter-inch long, are common on the lower surfaces of infested leaves.

Has Life Cycle of 17 Days

The average length of the life cycle at Yuma during the summer of 1955 was 17 days and numerous generations developed during the season. Individuals of all stages were active on old cotton plants at Yuma during the winter of 1955-56.

The cotton leaf perforator is a particularly serious problem in and near fields of stub cotton. The insect spends the winter on old cotton plants and is particularly well located for damaging such plants when they are allowed to develop for a second year. Records obtained at Yuma over an 8-week period during the summer of 1955 showed that four times as many larvae were present in a field of stub cotton as in a normally planted field a few miles away. The elimination of stub cotton is the first step in the control of this pest.

Common insecticidal treatments, particularly dust applications, have been somewhat less effective against the cotton leaf perforator than against other common cotton pests. In tests in 1955 at Yuma, spray applications were found to be more effective than conventional dust applications, although at least two treatments were needed to satisfactorily control heavy infestations.

Sprays Better Than Dusts

Spray formulations of chlorothion and methyl parathion (both phosphate insecticides) gave particularly good control, although standard formulations of sprays containing endrin, aldrin, and toxaphene plus DDT were also effective and were superior to dust formulations of the same materials. Tests will continue this year.

Yuma Not too Hot for
Farm Flocks

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Sheep, in their all-wool overcoats, would seem to be suited only for a cold climate. Yet they do very well during the hot summers at Yuma.

With an experimental farm flock at the Yuma Mesa Station for two years, summer temperatures climbed to over 110°. Not one ewe or lamb was lost due to the heat. The Rambouillet, a fine wool breed, is well suited to this area.

Bring Extra Income

Farm sheep flocks usually number between 25 and 100 head of ewes. They serve as a source of supplemental income, make use of otherwise unused pasture areas, and add fertility to the land. Also, if provision is made for fencing, sheep can be used to control weeds on ditch banks.

The equipment required for a successful farm flock in the Yuma area is certainly not elaborate. A simple straw shade, open, 10 feet high, allowed for about 30 square feet per ewe. Fresh water from the canal was provided at all times. A 38- to 40-inch woven wire fence was the greatest equipment investment.

We have learned through experience that ewes and lambs should not be allowed on pastures for at least two or three days after irrigation. Even on sandy textured soils, ewes and lambs will often get pneumonia or develop stiffness in the leg joints if permitted on the land too soon after irrigation. In addition, pasturing soon after irrigation results in soil compaction.

The income from a farm flock will depend largely on the percentage lamb crop and in avoiding excessive sheep losses. Bred grade Rambouillet ewes brought to the Yuma station produced a 152% lamb crop. This is higher than usual. However, since many ewes have twins, a lamb crop of over 100% is not uncommon.

The ewes do require considerable care during lambing. It is best to have a separate, clean area to hold the ewes and newborn lambs. The lambs should be kept in this nursery for three or four days and then returned to the flock. Weak lambs may spend a week or more in the nursery.

Made Good Gains

After weaning, the lambs were fed grain as a supplemental ration. They gained a third of a pound per day and ate a pound of barley each day. Because of trouble with overeating disease (enterotoxemia) during the fattening period, vaccination is recommended.

This spring, 33 lambs were marketed from the Yuma flock. They averaged 96 pounds and returned $436.00 above feed cost. This brought a return of almost 18c a day per lamb for each day on pasture. In addition to the income from lambs, the wool produced about $5.00 per ewe.