

### Infested Territory Reduced

The work in the barrier zone during the past three years has shown a steady reduction in the extent of the infested territory. Progress has been so marked that it is now possible to release from intensive work small areas in New York State that were in the original zone.

Three vigorous colonies, however, were found in towns near Rutland, Vt., in 1927. These, which were in areas adjoining the zone to the east, were thoroughly treated. There has also been a serious increase in the acreage defoliated in the territory east of the Connecticut River during the past summer and a substantial increase in infestations between the river and the barrier zone line, aggregating about 215 per cent. This, coupled with a very low percentage of parasitism over the entire infested area, makes it appear that it will be extremely difficult to maintain the present excellent condition within the zone unless further protective work is undertaken east of it. The examination of this territory and the treatment of all existing colonies are imperative. While it is hoped that the introduced parasites will increase within the next few years so that the existing heavy gipsy-moth infestations may be substantially reduced, this condition can not be predicted with certainty.

A. F. BURGESS.

**G**RAPE Inspection A new line of fruit-auction-inspection work was started in Chicago beginning August, 1926, and it continued until the end of the grape season. Inspections had been made in previous seasons of grapes, cantaloupes, and other products to be sold through the f. o. b. auctions, but the grape-inspection work in Chicago was the first undertaken in connection with produce to be sold through a delivered auction. Although car lots of grapes had been sold by the f. o. b. auction companies, on the basis of joint Federal and State shipping-point certificates, car-lot auction sales in a terminal market, with the auctioneer standing at the car door and prospective buyers congregating around him, presented a new picture. Prior to this time fruit-auction sales in the terminal markets had been held in a salesroom and the buyers usually examined the samples, which were on display in another room, before attending the sale.

The Bureau of Agricultural Economics entered into an agreement with the United States Fruit Auction Co. providing for inspection, for condition only, of all car lots of California juice grapes offered for sale by this company in Chicago. In consideration of the large volume of work offered, and as the auction company was not interested in the grade but only the condition of the grapes, the bureau agreed to furnish inspection service for \$2.50 per car instead of charging the usual \$4 fee. Another reason for the lower fee was the fact that the cars were placed for delivery in one railroad yard, which made conditions favorable for rapid inspection.

### Inspections Based on Samples

The inspections were based upon the examination of a 9-lug sample taken from each car. A preliminary written report, giving

briefly the results of the inspection, was tacked on the side of each car prior to the daily auction sales. The buyers also had the opportunity of examining the samples before the sales began and had the privilege of making a casual inspection of the car lot from the doorway, if they so desired. The sample lugs were marked by stickers supplied by the auction company, indicating that the samples were "official," and were then placed for display on the pavement at the car door. The inspection certificates, giving detailed reports as to the condition of the grapes, were placed in the hands of the auction company not later than the next day after the auction sale. The terms of sale prescribed by the auction company provided that any claim arising from a dispute as to the variety of the grapes must be filed within 24 hours after the sale. The decisions rendered by the inspectors as to the variety were final and were binding upon both parties.

The services of four to six inspectors were required to handle this work, and they were busily engaged from early in the morning until noon each day. A total of 1,129 cars was inspected under the terms of the agreement in 1926. Both the buyers and the auction company expressed their approval of the services rendered by the Federal inspectors, who exercised great care in selecting samples that fairly represented the quality and condition of the cars of grapes from which the samples were taken. The written reports were of great value to the buyers, but the success of this new line of work can be attributed largely to the fact that the juice-grape buyers had confidence in the integrity and neutrality of the inspectors in selecting representative samples. As the agreement was renewed at the beginning of the 1927 season this phase of inspection work promises to become a permanent feature of the activities of the farm-products inspection service.

R. C. BUTNER.

**G**RAZING Control is Needed for Proper Watershed Protection. On rough land, such as is ordinarily used for grazing, the herbaceous and shrubby plants that constitute forage for livestock help to check the movement of water on the sloping surfaces and to bind the soil against erosion. Grazing that destroys more or less of the plant cover not only reduces the capacity of the land to support livestock but may lead to damage by erosion and floods that is of far greater importance than the loss of the forage. The value of grasses and other low-growing plants for protecting watersheds may not be easily recognized because of the somewhat obscure manner in which such plants check surface run-off and erosion. The vegetation intercepts a small portion of the falling rain before it reaches the ground. The decaying plant material adds to or at least maintains the humus content and consequently the water holding capacity of the soil. The roots open up the soil to some extent and thus help the water to penetrate into the ground. The stems and leaves near the ground form physical obstructions to water as it runs down hillsides, reducing its velocity and increasing the chances of its being absorbed by the soil. The reduction of velocity and volume of run-off and the binding power of the roots check erosion.