

## PROPAGATION RESEARCH

Dr. J. S. YEATES

*Tip-grafting.*—This technique has been tested under various conditions in order to evaluate it for grafting when the wood of stock and of scion are at various degrees of ripeness. The results have shown that, in general, success depends on either or both stock and scion wood being from very soft to half-ripe or fully ripened, according to the precise species of plant involved. This method of grafting is proving very successful for the more difficult species, and is now being used increasingly in the nursery trade.

*Budding of Rhododendrons and Camellias.*—A considerable amount of work was carried out on different styles of budding. These plants are not normally budded, and it was hoped to evolve a satisfactory method. It was eventually found that buds could be successfully inserted, provided the accompanying leaf blade or a part of it was retained on the bud. The subsequent growth of the buds has not been satisfactory and further work is necessary.

*Rooting Trials.*—(a) *Azalea mollis*: A large number of cuttings of this plant have been inserted under a range of different conditions in an attempt to overcome the difficulty in rooting them. The current trials are not yet far enough advanced for any conclusions to be drawn. (b) *Daphne*: Further trials have been set out of this important export nursery crop. The use of a wider range of rooting hormones, and other treatments are included in the trials. (c) *Camellia and Other Plants*: These trials, being run parallel to those on daphne, are designed to provide information on which a series of bulletins or leaflets can be written when a detailed study has been made of the main factors involved.

*Trials of Hormones, &c.*—This work, which is carried out partly on the plants mentioned above and partly on other plants, is aimed at evaluating the different hormones and other rooting aids, and also at finding some correlation between plant reaction and any other factors. A fairly wide range of hormone compounds has been used in these trials, which will need a considerable time for completion.

## NEMATODE PARASITISM IN SHEEP

Mr. J. H. TETLEY

*Estimating the Date on Which Parasites are Acquired.*—Sheep reared free from parasitism were exposed to parasitism over three-week periods during the summer in a previous year and then killed. By estimating the ages of the parasites it was possible to an extent to work back and determine the dates when the parasites were acquired. In order to confirm the accuracy of such an experimental method the growth curves were studied this past year of two species of parasites, under controlled conditions.

*Process of Elimination of Parasites.*—The sheep were infected with parasites and killings were carried out from the second day in order to determine what populations were dislodged from the normal area of parasitism during the first few weeks of parasitism. Indirectly this knowledge has contributed towards understanding how parasites are accumulated. Past studies have shown that there is not a rapid turn-over of parasitism in which parasites are constantly lost and then being replaced by others. The present experiment confirms, to an extent, the previous conclusion that parasites are normally not quickly eliminated.