

Resistance to Root-knot Nematodes

THE immunity or resistance which some plants possess to attack by root-knot eelworms (*Meloidogyne* spp.) has led to the suggestion that the use of such plants in the rotation, or as trap crops, would effect a measure of control in root-knot infested land. A list of published records of plants showing complete or partial resistance to identified *Meloidogyne* species has recently been compiled and catalogued by Mary T. Franklin and D. J. Hooper on behalf of the Commonwealth Agricultural Bureaux (Plants Recorded as Resistant to Root-Knot Nematodes (*Meloidogyne* spp.)). Pp. iii+33. Farnham Royal: Commonwealth Agricultural Bureaux, 1959. 7s. 6d.). In the first section the resistant plants are listed alphabetically, with the authorities for their scientific names as given in *Index Kewensis* and the breeding line, strain or varietal name if stated, followed by the species of *Meloidogyne* to which they are resistant, with the author and date of record. In the second section the plant species are arranged in their families and listed under each nematode to which they have been recorded as resistant. The third section gives the literature from which the records have been taken. It is emphasized that the plants listed are not necessarily representative of the whole plant kingdom. They are either crop plants in which resistance has been noticed by chance, plants that have been tested for resistance because they would be suitable rotation or cover-crops in root-knot infested areas, weeds growing among infested crops or plants bred for root-knot resistance. For the purpose of the compilation resistance is taken to be any relationship between plant and nematode in which the nematode fails to produce viable eggs. Records of partial resistance (defined as the condition in which the rate of reproduction of the nematode is extremely low in relation to the degree of soil infestation) have been included.

Cleaning Fossils by Ultrasonic Waves

AN important article by Mr. J. N. M. Firth in the *Museums Journal* of April describes the cleaning of fossils in various types of matrix by ultrasonic waves. The instrument used was a 500-W. 'Soniclean' generator, type 1150, manufactured by Dawe Instruments, Ltd., and the cleaning tank of 1½ gallons was made of welded stainless steel. The specimen was either placed in a glass beaker containing cleaning fluid and floating in the tank or was suspended directly. A temperature of 65° C. was found to give the best results, and a few drops of liquid soap added to the fluid decreased the surface tension. It was also found advisable to replace the cleaning fluid when it became dirty, as such particles tended to damp out the waves. From a series of experiments, it would appear that there is a short interval of time at the start of treatment during which most of the dirt adhering to the specimen is removed. This is followed by a period of no further appreciable cleaning and finally by gradual degradation, the time for which depends on the lithological properties of the specimen.

Royal Geographical Society Research Fellowship

DR. P. SALWAY, Research Fellow of Sidney Sussex College, Cambridge, has been awarded a Royal Geographical Society research fellowship for work on the geography and topography of the Roman Fenland. During past years the progressive desicca-

tion of the Fenland has revealed an extensive system of Romano-British farms and settlements, with associated field-systems, droveways and water-courses, both artificial and natural. Continued desiccation will obliterate most of these before the end of the century. There is no part of the surface of Great Britain where the details of an ancient landscape can be so completely recovered as in the Fenland, and one product of Dr. Salway's research and field-work will be a detailed map of the region as it was in Roman times. The fellowship has been established by the Society with the aid of a grant from the Marc Fitch Fund.

Ciba Fellowships

THE Ciba Fellowship Trust, which was founded for the purpose of furthering the exchange of ideas between scientists in the United Kingdom and on the Continent, has awarded the following fellowships for the academic year 1960-61: Dr. V. P. Arya (Banaras Hindu University, University of London and the Polytechnic, Zurich), to study in Stockholm (natural products chemistry); Dr. K. Jones (University of Sheffield), to study at the University of Heidelberg (organic chemistry); Dr. B. L. Mordike (University of Birmingham and University of Cambridge), to study at Göttingen (physical metallurgy); Mr. C. N. Banwell (University of Cambridge), to study at Zurich (spectroscopy); Miss P. M. Bryant (University of Oxford), to study at Basle (organic chemistry); Mr. R. Grinter (University of Exeter), to study at Zurich (physical organic chemistry); Mr. W. D. Hamilton (Queen's University of Belfast and University of Birmingham), to study in Yugoslavia (nuclear physics); and Mr. J. R. Miller (University of Cambridge), to study at Munich (inorganic chemistry).

National Science Foundation Awards

THE National Science Foundation has announced the award of 1,200 graduate fellowships in the sciences, mathematics, and engineering for the academic year 1960-61. Successful candidates were selected from 4,696 applicants from all parts of the United States and its territories. Of the awards, 233 were made in the biological sciences, 946 in the physical sciences, including a number in interdisciplinary fields, and 21 awards were made in certain areas of the social sciences. The fellowships enable the holders to attend any appropriate non-profit-making institution in the United States or in a foreign country. The graduate fellowships provide basic stipends (for 12 months) of 1,800 dollars for the first-year level of graduate study, 2,000 dollars for intermediate years, and 2,200 dollars for the terminal year. These fellowships include additional allowances for dependants and tuition, as well as a limited travel allowance.

Royal Society of Arts:

Industrial Arts Bursaries Competitions

THE Royal Society of Arts has issued a report on the Society's annual Industrial Arts Bursaries Competition for 1959, in which 653 candidates from 81 schools and industrial establishments entered the 17 sections (pp. 56. London: Royal Society of Arts, 1960). A total of 34 bursaries amounting to £4,425 was awarded and the report includes the reports of the individual juries. Two inquiries were conducted by the Industrial Arts Bursaries Board in connexion with these competitions during the year. The replies to the first inquiry, which covered those