

penetration and better drought resistance with more rapid recovery after drought. The findings at the Station on this side of turf upkeep have been largely instrumental in the development of suitable machinery for treating both small and large areas. Indeed, throughout its history the Station has consistently encouraged implement makers to bring prototypes and final models to the Station for trial and constructive criticism. So important is the machinery side considered, whether it be for mowing, aeration or any other purpose, that the Board has set up at the Station a permanent implement exhibition where up-to-date tackle can be suitably displayed, while provision has been made for practical demonstrations.

Several other lines of work remain to be briefly mentioned: first, a study of grass strains, leading to the selection of several improved types of *Agrostis* and fescue, a study of seed establishment and of seed mixtures for various purposes, together with the most practical methods of sowing; secondly, the establishment of new swards from sods; and thirdly, studies on the importance of top-dressing closely mown swards with finely prepared composts and sand. Linked to this there are experiments on bitument treatment of new-sown and established swards.

Most of the lines of investigation briefly outlined above, together with some others, are continuing in one form or another. The aim throughout is to provide information that can be disseminated through the advisory service. It may not be without interest to record that in the past year 942 advisory visits were carried out to sports clubs and golf clubs throughout Great Britain and Ireland (with some on the Continent of Europe), while 8,343 advisory letters were sent through the post. The advice given is supported by soil analyses in the laboratory which, together with past experience and the growing fund of information derived from the experimental work, enable the advisory officers to tender advice at a high level of efficiency.

A feature of the work at the Station has been the development of the educational side. Courses of instruction in the science and practice of turf upkeep are now held at intervals. They cover one week, and groundsmen and greenkeepers receive an intensive course of lectures and practical work. Extension work involves a range from lectures to groundsmen's and greenkeepers' associations throughout Great Britain to the preparation of articles on turf matters and to the issue of the Board's *Journal* each year. There have been twenty-five issues of this, three being since the War.

The Station at the moment is extending, although such growth is at present handicapped by lack of further accommodation; but, if the necessary capital were available, this handicap could be overcome. Future development envisages a continual widening of the advisory service by adding still more clubs to the ever-growing list of subscribers, on which are numbered already many of the foremost cricket, football, bowling and other clubs. It is probable that the demand for courses of instruction in turf upkeep will grow, and the experiment of holding an evening course in the Midlands is to be tried out next winter.

Not only is it likely that a greater measure of support will be forthcoming from individual sports clubs, but also the moral and eventual financial backing of the ruling bodies governing each particular sport may be confidently expected. The provision of

development funds would enable the Station to emerge before its silver jubilee as a truly national turf research centre concentrating upon what is undoubtedly the most important asset of the great 'industry of sport'.

## HEALTH TEACHING IN THE UNIVERSITY

IN a recent issue of the *Health Education Journal* (8, No. 2; April 1950), Prof. F. C. Thomson, of the School of Public Health, University of Minnesota, describes the courses in health which are being given in the University. Teaching of general courses in health is one of the functions and responsibilities of the School of Public Health, and these have been designed for students who desire some knowledge of personal health and an understanding of the problems of community health. The course in 'personal health' is offered four times during the three terms of the academic year. In several colleges of the University this general course in personal health or an acceptable substitute must be taken before graduation. In certain of the colleges a student may be exempted from this course if he passes an examination prepared by the staff of the School of Public Health; but the number exempted is small. Examples of the topics dealt with during one term are: understanding ourselves as living organisms; certain essentials for health; nutritional needs; safe milk, water and food supplies; digestive disturbances; prevention and care of respiratory disorders; auditory and visual problems; dental health; common skin diseases; protection against communicable diseases; important health problems of the present day (heart disease, cancer, tuberculosis, etc.); accident prevention; endocrines; reproductive system; venereal diseases; health of the mother and child; mental health; alcoholism and narcotic addiction; personal health as a part of community health; facilities for medical care; health agencies.

The introductory course in community health is open to students who have shown that they have an adequate knowledge of personal problems, the general plan being similar to that for the personal health course. The subjects discussed include: origin and growth of the community's interest in health; spread of communicable diseases from man to man; diseases of animals transmitted to man; arthropods and the spread of disease; community programmes in the control of communicable diseases; healthful housing; safe water for rural and urban communities; sewage treatment and refuse disposal; maintaining barriers against food-borne diseases; community problems in mental hygiene; attacking the problem of venereal disease; community programmes in the control of heart disease, cancer, diabetes and tuberculosis; safeguarding maternal and child health; health protection and promotion in the schools; care of handicapped individuals; nutritional deficiencies; health maintenance in industry; community safety programmes; community participation for health education; official tax-supported health agencies; voluntary health agencies; analysing the morbidity and mortality records of a community.

There is evidence that the courses are much appreciated by students and put to practical use in their subsequent careers.