

Regional Cooperative Research Programs

THE BOUNDARIES of a particular problem or branch of biological research do not as a rule coincide with municipal, county, or state boundaries, but with the limits of the region to which the problem applies. When research on very similar problems with little coordination is conducted by several agencies, private or governmental, in the same geographical or environmental region, the economy and efficiency of the work done may be greatly reduced. When research is developed as a cooperative enterprise between the interested agencies, it can, through coordination and integration of work within a problem area, increase economy and efficiency to the point where basic research is made possible along certain lines for which previous provision was inadequate. Duplication of work between the cooperating agencies is avoided in regional organization, and fundamental research for which specialized staff or special equipment and laboratories are essential is greatly enhanced.

The need for a scientific cooperative approach to turf problems was recognized early by Frank M. Hardt, Chairman, Green Section Committee, U. S. Golf Association. In the first issue of *TURF CULTURE*, he writes as follows:

"As the interest in golf became more general, and as golfers demanded better playing conditions, the men who were in charge of some of our principal golf courses were far-sighted enough to realize that ultimate improvements in turf could best be obtained by a scientific study of the various problems encountered in raising turf on golf courses under widely different soil and climatic conditions.

"As a result, a cooperative agreement was drawn up between the United States Department of Agriculture and the United States Golf Association for a program for the study of turf grasses. This work was begun in 1920 under the direction of the late C. V. Piper, of the Bureau of Plant Industry, and has continued to date. During that interval extensive experimental work has been conducted in various parts of the country to determine the best

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grasses, the most effective fertilizers, disease and insect remedies, and to develop cultural practices which will lead to the improvement of turf."

During the "depression years" the joint policy of conducting regional investigations "under widely different soil and climatic conditions was greatly restricted." Early in the present emergency representatives of the Bureau of Plant Industry met with representatives of the U. S. Golf Association to consider war-time needs of the turf interests. In addition to plans for war-time needs, plans for cooperative regional programs were tentatively formulated. Fielding Wallace, Chairman, Green Section Committee, U. S. Golf Association, sent a statement to that effect in a general letter to District and State Golf Associations and Greenkeeping Superintendents' organizations as follows:

"Postwar plans are being developed now for a turf program more national in scope than has been the case in the past. The program will be based on regional investigations in diverse sections of the country which will be carried out cooperatively between the golf clubs and their greenkeepers on the one hand, various state experiment stations or agricultural colleges on the other, with the Green Section acting as a focal point to which the results from regional investigations may converge for correlation and from which suggestions may radiate in connection with proposed investigations in various sections of the country. Thus, in this program the function of the Green Section would be to act as a clearing house or a coordinating agency to prevent duplication of effort and to keep each investigating group informed as to what other groups are doing which should be of interest to them. Moreover, the Green Section staff would thus be able to fit together the results from various sec-

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tions of the country into one over-all picture which will be more significant to all concerned than numerous isolated findings in as many individual sections of the country."

In this same letter Mr. Wallace clearly states the advantages of cooperating with the U. S. Department of Agriculture:

"As has been in the past, the Green Section is in a position to identify or have identified disease, weed, insect or other turf pests from specimens sent to the Beltsville office. Because of its location in the vicinity of Washington and our close collaboration there with the Department of Agriculture, it is possible for the Green Section staff to confer with specialists in any and all of these fields and to obtain the most recent recommendations for their control where it has been impossible to date for the Green Section itself to study control methods in turf. Facilities are also available for the testing of soil samples and recommendations can be made on the basis of the results of such tests. For all of these recommendations as well as recommendations on various other aspects of turf maintenance the present Green Section staff has at its command a wealth of information which has accumulated as a result of the investigational work conducted by the Green Section during the last quarter of a century."

The policy of cooperation by the U. S. Golf Association with other agencies having an interest in and contributing to turf development has been more firmly entrenched and greatly facilitated by the appointment of Dr. Fred Grau as Director of the Green Section. His scientific training, practical knowledge, and complete understanding of the Greenkeeper's problems augurs well for the future. He fully appreciates the need to coordinate the research activities of all national, state, and local groups.

The inter-regional coordination can be carried on most effectively and efficiently by such national research organizations as the Green Section, U. S. Golf Association, and the Bureau of Plant Industry, Soils, and Agricultural Engineering of the U. S. Department of Agriculture. The work of the regional groups should be organized to take the fullest possible advantage of expert scientific men from all Federal, State, and educational institutions. It is very desirable that its membership be developed from a broad base, including Federal, State, municipal, highway, park, and recreational interests, golf clubs, cemeteries, estates, airports, industrial grounds, etc. The Bureau of Plant Industry, Soils, and Agricultural Engineering will do everything it can to further the activities and success of the regional research pro-

gram within the bounds of the Appropriation Acts. The U. S. Department of Agriculture has had in effect for several years a policy of regional development of research as is evidenced by the four Regional Research Laboratories and the nine Bankhead-Jones Research Laboratories. The programs of these laboratories are determined to a large extent by advisory committees made up of Federal and State agencies, industry, producers, or local institutions.

Several informal regional conference groups are also operating in different sections of the country, such as the alfalfa improvement conference, the corn breeders' conference, the spring wheat improvement conference, etc. These groups, having a common interest and purpose, gather around the table as their activities require to consider objectives and methods for attaining them. Their procedure is somewhat as follows: Collect and review the available information concerning the past, current, and proposed research work relating to the problem under consideration; study and correlate the information by means of individual and group conferences or special committees; prepare reports and make recommendations to the cooperating agencies; plan a coordinated program of research; arrange for essential materials, equipment, and personnel; avoid undesirable and unnecessary duplication of effort; and secure greater economy and efficiency in the expenditure of funds. Independent research by the regional group is not advocated if arrangements for the work can be made with one or more of the cooperating institutions or agencies. The chief responsibility of the conference group to the regional program should be advisory, coordinating, promotional, and financing.

It is important to recognize that no one plan for organization can be final in all details. The nine U. S. Department of Agriculture Bankhead-Jones laboratories are not organized and operated on the same lines. Neither are the many informal conference groups operating in all sections of the country. Each one has adapted its organization and activities to its dominating requirements, facilities, and personnel at hand.

It is also important to recognize that no one research plan can or will be final. To be useful a regional research program must be dynamic, changing with every new need or advance. It must permit the investigator to make adjustments from old or less promising fields to newer and more fertile opportunities or possibilities. The important thing is to arrange all activities so that they may be quickly responsive to the needs of the future. It is unlikely that the research and educational patterns of today will fit the needs of tomorrow.