## Editorial

## Suggestions for Solving Foreign Range Management Problems

During the summer of 1960 a formal seminar on range management problems of the world was held at Utah State University as part of a range management training program in cooperation with the Foreign Agricultural Service and the International Cooperation Administration. Participants from seven foreign countries reviewed the status of range management in their respective countries and made suggestions toward solving the major problems. The highlights of the discussion are reported here and I would like to give credit to the true authors of

this paper: Mr. Rufino A. Sabado, Chief, Forest Grazing Section, Bureau of Forestry, the Philippines; Mr. Abdus Salam Swathi, Divisional Forest Officer, Sibi, West Pakistan; Mr. Jorge Brun, Range Management Specialist, National Institute of Research, Buenos Aires, Argentina; Mr. Jacob Katsir, Regional Soil Conservation Planner, Hakirya, TelAviv, Israel; Mr. Rasheed Abdel Magid and Mr. Hasim Abdel-Muttalib Mukhtar, Department of Animal Production, Omdurman, Sudan; Mr. Athanasious G. Chouliaras and Mr. George Koukouzelis, Agri-

culturists. Greece: Mr. Hasan-Namik Arkun, Assistant Director, Ministry of Agriculture, Ankara, Turkey; Mr. Mustafa Bedestenci, Range Management Specialist, Konya, Turkey; Mr. Ismail Hakki Akbay, Seed Increase Farm, Ankara, Turkey; Mr. Naim Dincer, Pasture and Forage Specialist, Eskisehir, Turkey; Mr. Urfi Guney, Veterinarian, Daracabey, Turkey; Mr. Muhlis Tan, Pasture Specialist, Eskisehir, Turkey; and Mr. Mithat Yener, Pasture Specialist, Adana, Turkey. The gentlemen listed above freely discussed the problens in their own countries and countries which they had visited. This paper is a compilation of the notes from the discussions.

As would be expected, many divergent problems were presented. Countries such as Argentina and the Sudan are faced with utilizing large expanses of relatively inaccessable rangelands while the more populated countries such as Israel are most interested in the intensive use of a limited land resource. Although geographical location, climate, population density, and local customs contribute to range management problems particular to each country, there are some problems that appear to be common to all countries represented in the seminar. The most common problem mentioned by all concerned was the lack of qualified personnel trained in range management. Although the ICA, United Nations, and other organizations send technicians to the countries, there are not enough to fill the needs. A common complaint of the foreign visitors was that the technicians sent to the countries often did not spend enough time in the countries to adequately learn the problems of range use and the customs of the people that helped to dictate the policies of land use in the respective countries. Likewise, foreign countries send technicans to this country for training, but many times the tour of duty is so short that it amounts only to an observational tour of problems here.

Representatives from the Sudan, the Philippines, Turkey, Greece, Argentina, and Pakistan listed the establishment of a range management curriculum in their home universities as the top priority problem in solving their range problems. The general feeling was that local technicians who had sound range management training could implement programs much more effectively than could foreign technicians. However, most representatives indicated that they would like to have foreign advisors who would work in the

field with local technicians, since a man out of town is considered an expert the world over. At the present time Israel has a range management curriculum in the Hebrew University. They have some of their top ecologists and botanists in the United States at the present time obtaining advanced training in range management. Argentina offers courses in botany, ecology, and closely related fields, but does not have a range management curriculum in its universities. The Philippines has offered a course in forest grazing in its forestry college, but does not have a qualified teacher for such a course at the present time. In Turkey, Greece, and Pakistan training is available in botany, agronomy, and pasture management, but no courses are taught for the purpose of training people to work on native rangelands. The range management work in the Sudan is in the department of animal production and at the present time no range courses are taught. Without exception the foreign representatives felt that there was a great need for more range managers in their countries and that these technicians should be local technicians who understand the problems of the people. However, such local technicians are not available.

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One of the solutions suggested by the group would include a three way approach to the problem: First, well qualified representatives from the foreign countries should continue to come to the United States for training. Second, technicians from the United States should continue to be sent to the foreign countries. If possible, these American technicians should be people whom a foreign representative has met and worked

with during his stay in America. The foreign technician would take the responsibility of surveving the range problems in his country, organizing the information available, etc. before the arrival of the American technician. In this way, maximum use could be made of the American technician during the time he was in the country. By working together, both during the training period of the foreign representative in this country and throughout the American's visit to the other nation, close working relationships could be accomplished and many of the sociological problems of foreign aid could be minimized. Scientists from both countries could benefit from this international team approach. These two approaches to American aid to foreign countries could be accomplished by only minor modifications of existing policies.

The third method of American aid in establishing range management schools given a high priority by most participants, but it is considered here last because it is a major modification of present programs. The major suggestions were: First, send well qualified college teachers in closely related fields to this country for advanced degrees in range management. Second, upon return of the foreign representative to his home country send a well known range educator from this country to help him establish a curriculum in his country. Again, the team approach would add much to the establishment of a lasting program.

The second most common problem to all countries was the problem of making adequate surveys of the range resource. Of course this depends to a large extent upon the number of qual-

ified range technicians available. In most cases labor is plentiful in foreign countries but the technician must have adequate training in sampling, vegetational analysis, statistics, and other principles to interpret the data and integrate the results into a meaningful management plan. Basic ecological data must be gathered and interpreted before useful surveys can be made. Use standards for each type of vegetation and each class of livestock remain to be established. These problems are not to be solved by a poorly trained range scientist. Certainly a large amount of the field data could be collected by short-course trained technicians; but if really meaningful range surveys and management plans are to be accomplished, then they must come from educated scientists, not trained technicans. The countries do not need, or want, large amounts of foreign scientists making their management plans. They are ready and willing to make their own applications if we will help educate them in the basic principles.

The third important common problem was the establishment of range research programs to give the managers sound bases for their management programs. Vast areas of research into use and management of tropical ranges are open in the Philippines and in the Sudan. Much investigation must be done in genetics, soils, plant-moisture relationships, and the application of basic research to the reclamation of arid regions if the depleted ranges of Mediterranean countries are to be made productive again. The problem of supplying the research projects with educated personnel must be met and once more we see that the key to solving range problems is the supplying of personnel.

Extension and acceptance of proven principles in range management is another problem common to all countries. Again, getting the known principles accepted is a job for individual workers to do and the people who can do it best are local people who are known and respected in their communities.

Another problem which occurs in some of the countries is the lack of exchange of current literature. Although ICA participants to this country are given membership in the American Society of Range Management as part of their assistance program, it may not be possible for them to maintain membership once they return to their countries. The exchange ratio between the American dollar and the currency in many foreign countries makes it almost prohibitive for a foreign technician to receive more than one American journal and many times even one cannot be justified on their low salaries. Most journals charge an increased rate for foreign subscriptions. Perhaps it would be more realistic to charge more for American members and give a reduction to foreign countries if we are actually interested in our material getting world wide distribution.

Although Argentina, the Sudan, and many other countries still have vast expanses of rangeland, other countries are feeling the demands of population growth more acutely. Intensification of production on the pastures and ranges are of paramount importance to the people of Greece, Israel, and Turkey. Here the ranges have been reduced to extremely low productivity following centuries of uncontrolled grazing. In many instances ranges have deteriorated to such a degree that it may be impossible to improve them by management alone. Large scale range revegetation or reclamation projects may be necessary to increase production. However, once the ranges are reclaimed, it will be necessary to develop management plans that will allow for continued sustained yield.

The Philippine livestock industry was all but destroyed during World War II, and it has been diffigult to get pre-war ranchers to rebuild their herds since greater income may be obtained from investment in industry. Adequate markets must be developed for the produce in Turkey, the Sudan, and Pakistan if the livestock business is to reach the full potential in these countries. In some countries, such as the Sudan, cattle are considered a source of wealth and a man is not likely to reduce the item which adds to his prestige in the area.

Many of the range management problems of some countries are closely tied in with the customs and traditions of the people. For instance, in the Sudan and Pakistan nomadic grazing by tribal herds presents problems seldom encountered by other range managers. Regardless of the amount of technical training a range scientist who works in these countries has, he must be able to modify his training to fit the local situations. Other problems of local land use enter into the management of foreign ranges. The rancher in the Philippines is constantly plagued by landless squatters and trepass users of the range resource. Community pastures in Greece and Turkey may add to the problems of applying approved range practices to the

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lands. Therefore, the real progress in solving the range management problems in the countries will come from local people who have been trained in the principles of range management.

As it has been suggested, perhaps the best way to get the principles to other countries is by a team approach between individuals in the countries where range management is an accepted science and individuals in nations where scientific range management is unknown. Representatives of foreign countries appear to be eager to solve their own problems and given the proper educational facilities. they can solve them. It appears

that education of foreign range technicians can be speeded up by establishing range management curricula in foreign universities. further exchange of technical personnel, and unlimited exchange of ideas and research.-Thadis W. Box, Range Management Department, Utah State University, Logan, Utah.