

RADIOISOTOPE LABORATORY IN TURKEY

As an agricultural country, Turkey is vitally concerned with the improvement of the quality and yield of its crops. Considerable research to improve methods of agriculture has been done at the University of Ankara but, prior to 1960, radioisotopes were not used for this purpose.

In August 1959, following some preliminary discussions, the Turkish Government formally requested that the Agency provide for one year the services of an expert in the agricultural applications of radioisotopes. Specifically, they wanted this expert first of all to assist in setting up and equipping a pioneer laboratory for the utilization of radioisotopes in agricultural research. Once the laboratory was in operation, the expert was to initiate various research projects using isotope techniques, and to train personnel to carry on this work. The Agency was also asked to supply various specialized equipment for the laboratory, including some radioisotopes.

The request of the Turkish Government was approved by the Agency's Board of Governors in September 1959.

On 1 June 1960 the IAEA expert arrived in Ankara. He was Mr. Helge Bergh, a Norwegian, trained in organic chemistry, radiochemistry and agriculture, with many years of experience in research posts with the Norwegian Government, and author of some 35 published scientific papers relating to agriculture, radiochemistry, and radioactive contaminations.

Work of IAEA Expert

Mr. Bergh, with excellent co-operation from faculty members of the University and from the Turkish Government, proceeded at once and with vigor toward the completion of the first part of his assignment, the setting up of the radioisotope laboratory. An existing building connected to a greenhouse was made available, providing about 100 square meters of space. Mr. Bergh, with the aid of his faculty colleagues, worked out a design for the internal alterations of the building and for its basic furnishings. With Mr. Bergh's supervision, Turkish carpenters and other artisans proceeded to carry out the design. Meanwhile initial items of specialized nucleonic equipment were ordered.

Finally, on 10 December 1960, just over six months following the expert's arrival in Turkey, the first phase of his assignment was complete - the new laboratory was formally opened at ceremonies attended by members of the Turkish Atomic Commission and other Government officials.

It is foreseen that the research projects which will be initiated at the laboratory will include the following:

- determination of the effect of fertilizers upon yield and quality of field crops and fruit trees,
- soil fertility studies,
- studies of mineral element uptake and localization of nutrients in plant body,
- studies of the foliar application of mineral nutrients, especially in fruit trees,
- investigation of microelements in field crops and fruit trees,
- investigation of pollination problems,
- study of the distribution of mineral elements in different fruit seedlings,
- study of the uptake of nutrients by fruit trees during the rest period,
- dispersal studies on insects,
- insecticide studies,

Mr. Bergh is now proceeding to carry out the other items in his assignment, the initiation of these projects and the training of personnel.

An assistant at the laboratory reads from a scaler the radioactivity of samples contained in one of the adjoining detecting instruments

