

RADIOISOTOPES IN BURMESE AGRICULTURAL RESEARCH

After discussions with an IAEA preliminary assistance mission, which visited Burma in 1959, the Burmese authorities decided to start a laboratory for the use of radioisotope techniques in agricultural research. The laboratory was set up at the Agricultural Research Institute at Gyogon, on the outskirts of Rangoon.

Under its technical assistance program, IAEA assigned an expert in the agricultural applications of radioisotopes for this project. The expert, Dr. E.C.S. Little, from New Zealand, took up his assignment in April 1960. The Agricultural Research Institute made available one of its senior scientists, Mr. Khin Win, to work with Dr. Little.

Discussions were held with regional representatives of the Food and Agriculture Organization on the best lines of research to be adopted at the laboratory in its early stages. As the most important crop in Burma is rice, a series of experiments were planned for a study of the nutrition of rice, particularly its

phosphorus uptake, with special reference to comparative responses on a range of typical paddy soils.

The experiments began last year and are being continued. Radioactive fertilizer mixtures have been applied to a large number of different paddy soils in pots. The pots are planted with rice and sample plants are taken at different intervals for analysis.

The amount of phosphorus taken up is first observed by auto-radiography; the plants photograph themselves in the dark with the help of the radiation emitted from the absorbed radiophosphorus. A more accurate analysis is then made with the help of elaborate radiation-counting equipment. The results already obtained have shown interesting variations in the amounts of phosphorus taken up from the fertilizer applied to different soils. Detailed information of this nature would be extremely useful to agricultural officers in making their recommendations to farmers. Care has also been taken to link this work with conventional field and laboratory experiments, using non-radioactive fertilizers.



Research and demonstration work of the Radioisotope Laboratory, Burma