

## Agriculture experts take part in Sri Lanka project

Canadian scientists are participating in a project designed to help the island of Sri Lanka become self-sufficient in food.

Sri Lanka has about 11.4 million acres of land in the dry zone. Permanent agriculture has been established on only 1.6 million acres using irrigation. Another 900,000 acres are now earmarked for development by extending the irrigation systems.

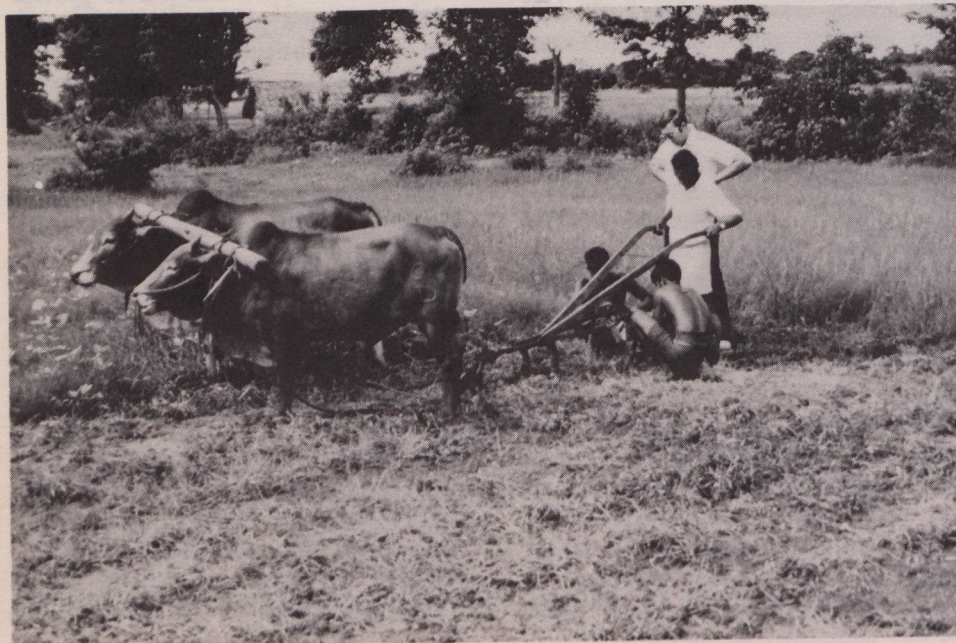
"Sri Lanka has the resources necessary for becoming self-sufficient in food," says R.D. Dryden, an Agriculture Canada agronomist who spent two years as an adviser setting up the Canada-Sri Lanka Dry Zone Project.

To make it a reality, better agricultural practices are being introduced in the dryland areas of northern Sri Lanka funded through the Canadian International Development Agency.

Both the Canadian and Sri Lankan governments believe that a further two million acres could sustain a stable, highly productive agricultural industry.

### Dryland research

The Dry Zone Project consists of work at the dryland research station near the village of Maha Illupallama and at a pilot development area of four villages close to the station. A total of about 200 families live in the area, with an average of six persons a family. Farm holdings vary from three to six acres in size.



Agriculture Canada scientists are helping Sri Lanka to increase crop production.

"Agriculture in the dry zone consists of rice paddy fields in the lowlands and slash-and-burn agricultural techniques — called *chena* — in the uplands producing cereals, cowpeas, beans and oilseeds. In addition, some tree fruits and vegetables are grown in home gardens in the villages," Mr. Dryden says.

Farmers collect run-off water from the surrounding uplands in tanks or lakes. This water is then used to irrigate the rice fields.

"The uplands, unless maintained under improved tillage practices, can be cropped only two or three successive years before they have to be abandoned because of weeds," Mr. Dryden says.

Every five to ten years the land is cleared and the cycle begins again.

"Under improved tillage and cropping practices, there would be much less need for *chena* agriculture and more settled use of the uplands," Mr. Dryden says.

Production could also be increased in the lowlands. If sowing gets under way with the early rains of September and October. The monsoon rainfall could be used to produce the first crop of rice in the paddy lands and stored water could be saved for irrigating a second crop of rice or other grain, planted in February.

Animal improvement and draft training programs are already under way and improved feeding and pasture management programs will be added in the near future.

"The key to development projects such as this one is working with the local people and introducing new innovations," Mr. Dryden says. Project staff work with farmers interested in adopting low-cost management practices and new varieties of crops.

Improved cultivation equipment has also been introduced and research and development carried out on field equipment. Machines are usually designed so construction and repairs can be done with local materials in village shops.

## Science prizes awarded

Three Canadian scientists have been awarded the first Izaak Walton Killam memorial prizes for science, engineering and medicine, the Canada Council has announced.

The prizes worth \$10,000 each were awarded to Feroze Ghadially, medical pathologist at the University of Saskatchewan; Raymond Lemieux, organic chemist at the University of Alberta, and Louis Siminovitch, geneticist-in-chief at Toronto's Hospital for Sick Children and genetics professor at the University of Toronto.

Only Canadian citizens are eligible for the prizes, the most valuable of the Canada Council's Killam awards — the others are the Killam research fellowships and the Killam research associateships. The prizes are awarded for career-long excellence in the field.

I.W. Killam, a Montreal financier, died in 1955. His widow, Dorothy, provided for the award program in her will. She died in 1965 and the first awards were given in 1968.

Dr. Ghadially has received recognition for his work on cancer, arthritis and the application of advanced biophysics techniques to human disease. He is one of the best-known pathologists working in electron microscopy and his writings have become basic textbooks in the field.

Dr. Lemieux did research on carbohydrate chemistry that contributed to advances in developing new antibiotics. His more recent work in blood typing and grouping has contributed to the treatment of leukemia and hemophilia.

Dr. Siminovitch has pioneered the genetic analysis of cells and his present research in the metastatic growth of cancer cells is expected to be useful for the understanding of tumour biology.