

Oilseed crops introduced in Egypt

Canadian canola varieties are being test grown on plots of land carved from the Egyptian desert.

Under a three-year international aid project, sponsored by the International Development Research Centre (IDRC), rapeseed, including canola varieties, has been introduced in Egypt to help Egyptian researchers increase edible oil production in that country.

Dr. Keith Downey, project consultant and assistant director of Agriculture Canada's Saskatoon, Saskatchewan research station, said Canadian varieties were first planted last year on test plots near Cairo, on reclaimed desert south of Alexandria, and in the Nile Delta region about 240 kilometres northeast of Cairo.

Rapeseed new

"Egyptians have long produced oil from native crops such as sesame, safflower and cotton, but rapeseed is new to them," said Dr. Downey. "We're trying to find out whether rapeseed can grow there and how competitive it can be," he added.

Low erucic-acid and sulphur-compound levels make canola varieties more desir-

able than other types of rapeseed for both nutritional and industrial purposes. However, both canola and older rapeseed varieties are being tested in Egypt to determine which plant types are best suited to local conditions.

Dr. Downey said Middle Eastern growing conditions are vastly different from those of northern Alberta and Saskatchewan, where most of the Canadian crop is grown.

"Rapeseed is a summer crop in Canada, but in Egypt it's grown during the winter because of the mild Mediterranean climate," he explained.

The reclaimed desert and delta regions are fertile but there are problems with high calcium carbonate levels in the desert and salinity in the delta.

"Establishing new crops is always difficult, but we know a market exists for the oil, since Canadian and Swedish canola oil has previously sold well in Egypt," said Dr. Downey.

A current challenge is to find a suitable crushing outlet for the initial small quantity of seed. Egyptian researchers hope to have several thousand acres of rapeseed under cultivation soon after the initial test project ends this December.

Satellite technology funded

The federal government will provide Canada's satellite communications industry with \$8-million over the next two years.

The money will go to Canadian companies for the design, development and manufacture of components and subsystems associated with future technological advances in the field, Communications Minister Francis Fox announced.

Ottawa has already invested \$8 million in the program during the past four years.

Mr. Fox said the funding has helped increase Canadian content in the manufacture of earth stations and satellites. For example, the Canadian content in Telesat's satellites has increased to 50 per cent from 13 per cent in the past ten years.

The minister also said it has generated more than \$9.5 million in sales by organizations such as Telesat Canada of Ottawa, which owns and operates the country's four communications satellites, and Teleglobe Canada of Montreal, which is responsible for overseas telecommunications, and telecommunications carriers.

A further \$45 million in sales is expected in the next four years, he added.

Computer controlled heating

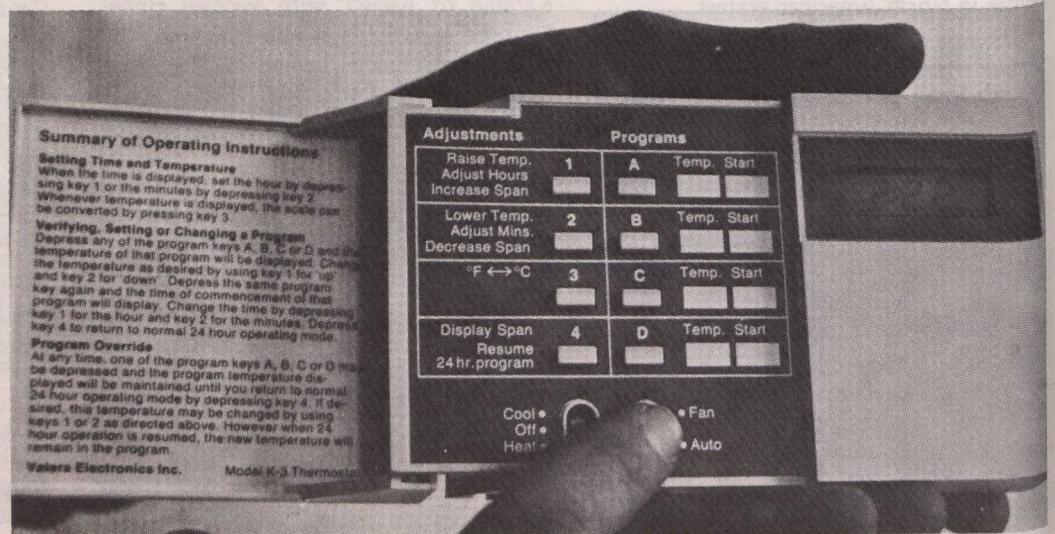
An Ottawa company is producing a computer-controlled thermostat that can help to lower heating bills.

The firm, Valera Electronics Incorporated, developed the thermostat in conjunction with the National Research Council of Canada. The company expects to produce more than 100,000 units this year.

About the size of a pocket calculator, the new device is designed to replace a conventional home thermostat with a "thinking" temperature controller programmed by the homeowner himself.

Once a series of time and temperature settings is registered on its simple eight-button keyboard, the small computer takes command of the furnace or central air conditioner and raises or lowers the home temperature accordingly...down to 16 degrees Celsius at bedtime, for instance, up to 20 degrees Celsius in the morning, and so on. As many as four temperature changes a day are possible.

The solid-state device also gives an alternating readout of time and temperature, serving as an accurate thermometer and digital clock. A remote temperature sensor, unaffected by local temperature swings from drafts or opening outside doors, can also be installed some distance from the main control unit. The unit uses little power and has no moving parts, unlike some electro-mechanical models on the market. Over-all, the unit has many features not offered by existing programmable thermostats, and its cost (the manufacturer's suggested retail price is around \$140) is substantially lower than many of its competitors. Assuming an annual fuel saving of 10-15 per cent, the device should pay for itself within two years. (Excerpts from an article by Wally Cherwinski in Science Dimension, 1981/3.)



The computer thermostat is programmed on a simple eight-button keyboard. Manual override keys allow the homeowner to bypass the automatic settings temporarily. Digital readings of time and temperature, alternating at four second intervals, appear in the small window (upper right).