

## Post offices and produce go metric

Post offices went metric recently and in three Canadian cities produce now is available in metric quantities.

Canada's 8,000 post offices have been determining postage according to weight in grams and kilograms instead of ounces and pounds, since July 1. The rates are basically the same, say Post Office officials. It costs 17 cents to mail a first-class letter weighing a maximum of 30 grams; one ounce equals 28.3 grams. The new rate for first-class letters or small parcels weighing a maximum of 50 grams is 26 cents.

Consumers in Peterborough, Ontario, Sherbrooke, Quebec and Kamloops, British Columbia, now can buy meat, fruit and vegetables in kilograms as part of a pilot project to test metric conversion plans. Advertisements for weekly sales are listed with measurements in small print next to the old imperial measurements. Items such as hamburger, potatoes and apples are being sold by the kilogram. Produce across Canada is expected to be sold in metric quantities starting next year.

## First mass produced solar collectors

Industrial history was in the making as Canada's first mass produced solar collectors rolled off the assembly line of Temperature Specialities Manufacturers Limited in Downsview, Ontario.

"We're the first in conveyor line production of solar collectors in Canada," Tibor Lucas, president of the firm, explains. "Our technology in this field has advanced to volume production using factory-type manufacturing as opposed to handicraft methods."

The Temspec solar collectors are large rectangular metal boxes with crystal white glass lids, through which the black collector plates are visible. Copper pipes are carefully soldered to the inside of a copper plate which has been coated with nickel, then with black chrome electroplating.

"This black chrome electroplating ensures 50 to 60 percent more heat retaining efficiency as compared with simple black paint," stressed Mr. Lucas. "And we have a unique, continuous soldering technique that we used for the first time in Canada in solar collectors."

The black plates then join a conveyor line where galvanized steel boxes have been filled with a "degassed" fibreglass insulation. The collector plates are installed in boxes, over which is secured a sheet of special, low-iron, tempered glass that allows 92 per cent of the sun's rays to penetrate. The plates and glass are meticulously cleaned during the final steps.

"This is important," Mr. Lucas emphasized, "because each unit is hermetically sealed afterwards." All the panels are extensively tested under water pressure.

The whole production, which will heat the complete service water system in a nearby hospital, took about three weeks to complete.

The Temspec solar collector method functions as a hot water heating system. Hot water is circulated and recirculated through a series of pipes into a storage tank, passing through the collectors in which the temperature might go up to 400 degrees Fahrenheit without water circulation.

"Our company has many years of experience in hydraulics as we have been manufacturing liquid heating and air conditioning units for at least seven years," said Mr. Lucas.

He credits Professor Frank Hooper of the University of Toronto for establishing Temperature Specialities as a leading pioneer in the manufacture of solar collectors. In 1975 he played a key role in launching Temperature Specialities on a federal-provincial pilot project to test the feasibility of collectors designed especially for the Canadian climate.

The performance of the Temspec collectors, designed by the professor and manufactured by the company, was pitted against that of similar imported units installed in the house. The imported product cracked and broke under climatic stress but the Canadian-made units remained stable.

Mr. Lucas recommends heating with Temspec solar collectors for two main reasons. About the only cost involved is for the initial purchase of the system and, secondly, there is no worry about ever running out of fuel.

With Professor Hooper's scientific leadership, Temspec will develop improved designs for the government's PASEM program. To be ready for real mass-production, required by the national PUSH Solar program, Omar Elwedini, head of Temspec's research and develop-

ment, who worked on the CN tower and the Pickering atomic plant, will organize what may become not only one of the founders of the Canadian solar industry, but also one of its leaders in manufacturing.

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## University of Toronto sponsors ethnic programs

The University of Toronto is providing ethnic communities in Toronto with a vehicle to learn more about Canadian culture as well as their own.

The university's community relations office has been sponsoring or co-sponsoring special week- and month-long emphases on the music, art, literature and history of ethnic communities. It also presents the requirements for admission and the academic programs of the university to many communities in their own language.

Last year the office co-sponsored a month-long theme, Japanese-Canadians: Past and Future, and India Month, commemorating the 10th anniversary of the association between the University of Toronto and the Shastri Indo-Canadian Institute. A Portuguese Week included lectures on Portuguese Canadians, origins of emigration from Portugal and the classical age of Portuguese culture. This spring there were programs on the history of Blacks in Canada, on aspects of Jewish culture and history, and on Caribbean art, music, literature and history.

The programs are not intended to reflect the politics or popular culture of these communities, according to university officials, but are designed to take a more scholarly look at the backgrounds of ethnocultural groups, using the university's professors and departmental resources.

More directly related to university training are the brochures the office provides informing parents and high school students of the requirements for university admission. The brochures have been printed in Chinese, Greek, Italian, Portuguese and Spanish. Plans are underway for a Korean-language brochure.

As a service to university personnel, the office has participated in organizing cross-cultural workshops on how to deal with the growing multicultural mix on campus. A film series on various cultures is being organized for the fall.