

infectants. Trees are also a source of turpentine, varnishes, paints, synthetic camphors, printing inks and insecticides. Rubbing alcohol and the softening substances used in hand lotions also come from trees.

Wood yeast, a by-product of pulp making, has been successfully processed into an excellent livestock feed, and, in Sweden during the war, into a meat substitute with the appearance and something of the taste of ground beef. And that is not all. The list is endless.

The list will be even longer when scientists finally solve the puzzle of lignin, which is being studied in laboratories in many parts of the world. (From *Le Papetier*, December 1976.)

### Canada, U.S. link hands in chart-making

A new navigation chart of Lake Ontario — the first of a series of border-region charts being produced co-operatively with the United States — is now available from the Canadian Hydrographic Service.

Production of the new Lake Ontario chart (No. 2000) was co-ordinated with the simultaneous issue of a similar chart of Lake Erie by the United States National Ocean Survey.

Hydrographers of the two countries achieved significant compatibility in specifications for the two charts, which will enable the Canadian Hydrographic Service to reproduce the U.S. chart of Lake Erie directly from the U.S. reproduction negatives after minor changes. The U.S. authorities will also be issuing the Canadian-made Lake Ontario chart.

The latest CHS chart also incorporates a number of changes in the style of presentation of marine navigational features. The depths and elevations are now shown in metric units and the chart is bilingual. Continuous line contours are used to indicate depths, supplemented by figures where required.

Canada and the United States have co-operated in marine surveys and the charting of coastal and inland navigation routes of mutual interest for many years. A joint advisory committee was set up in 1963 to assess the complex technical problems involved in reducing duplication of effort and in pre-

paring common standards of presentation and procedure.

The two countries exchange their plans for field surveys twice yearly, which results in a number of co-operative operations. Results of surveys are also exchanged.

### Northern Alberta transportation agreement

A new federal-provincial agreement, worth \$30 million, will provide for construction and improvement of transportation facilities over the next three years in northern Alberta. It provides for sharing the costs of the construction of roads, bridges, and airstrips in the northern part of the province, the federal contribution totalling \$15 million.

Transport Minister Otto Lang said the agreement originated in a commitment the Federal Government made at the Western Economic Opportunities Conference in 1973. "Our goal in this co-operative program," he said, "is to upgrade the northern Alberta transportation system as part of developing an efficient national transportation network, as well as improving access to isolated northern communities and areas with high resource potential."

The agreement follows two previous interim ones, for 1974-75 and 1975-76, between Transport Canada, the Department of Regional Economic Expansion, and the provincial government for improvements to transportation facilities in northern Alberta.

Under the 1976-78 pact, the Federal Government will provide \$5 million to the province for each of the three years for the continuation of projects initiated under the interim agreements, as well as for new construction projects.

### Japanese on the prairies

The University of Alberta's Japanese language program received national recognition last year in the form of a special grant for 1976-77 and 1977-78 toward providing permanent Japanese-language staff. The grant consists of a major portion of the interest on \$250,000 from the Japan Foundation held in trust by the Association of Universities and Colleges of Canada

to promote Japanese studies in Canada.

The original grant from the Japanese Government was \$1 million. One-quarter of the interest on this amount was assigned to each of three Canadian university centres. The remaining quarter was open for national competition.

"Although Alberta was unfortunately eliminated from the original consultation," said Hazel Jones, Japan specialist in the Department of History, "it did enter the national competition, and our program has been recognized."

Eleven Japanese language and literature courses are being taught this year, three of them intensive "double" courses. Students spend several hours each week in language laboratories for introductory language courses, in addition to six hours in class.

### Business interest

The interest of business people in the Japanese language and culture is a noticeable phenomenon in Alberta, and perhaps this is why, in the University of Alberta, a Japanese-language program has rapidly expanded. Moreover, the community has shown further interest in Japan by establishing programs like Contact Japan, sponsored by the Alberta government and the Lions' exchange program, which allows Alberta high-school students to tour Japan, live in Japanese homes and learn directly about Japanese culture.

### Institute for Northern Studies

The University of Saskatchewan is one of 24 founding members of a new association of Canadian universities active in northern research. The Institute for Northern Studies will promote co-operative planning of northern research among universities and the shared use of research stations and other Arctic facilities.

In addition to the gathering and dissemination of information on northern research, the Institute plans to arrange exchanges of scholars and graduate students between member universities and other Arctic countries, such as Norway, Finland, Sweden and the U.S.S.R. It is the Institute's objective to help Canada fulfil its international obligation to share information, research facilities, experience and skills with other polar nations.