



FAR NORTH

Modernistic architecture above the Arctic Circle. Murmansk, Russia's Arctic Ocean seaport, now has a population of 100,000, and is outfitting headquarters for expeditions heading north and east.

ships that come for cargo and the ice-breakers that open paths for them.

The whole job of navigating on the Siberian north coast is a difficult one, for ice is always a menace to navigation. To scout best ways for cargo ships to get through, airplanes based on shore and island stations take to the air when ships approach, and radio down directions. There are some threescore of these Arctic aviation and radio outposts now on duty. As a valuable byproduct of their activities as navigational aids, they also assemble a great deal of useful data on weather, ocean currents, ice conditions, animal and plant life, and other valuable scientific information. The Academy of Sciences of the U.S.S.R. has found it necessary to establish several new science journals for the publication of these researches.

There is even the prospect of tourist

trade in the Arctic. Tass, official news agency of the U.S.S.R., has announced a tour starting at Murmansk, taking in points of interest around Novaya Zemlya, and returning by way of Archangel. The first steamer is billed to start about the end of July. This trip will of course not take the tourists very far into the Northeast Passage, but it will at least give them an idea what the Russian North is like.

A further possible usefulness of the Passage is suggested by Mr. Smolka. In the event of a European war bottling up Russia within her own boundaries, it might be possible for steamers to follow the Arctic coast to Bering Strait, thence southwardly along coasts covered by the American and British flags, to obtain supplies in the United States and Canada. On return, their cargoes would be carried up one of the great Asiatic rivers, possibly the Ob and its branches to Novosibirsk or Omsk on the Siberian Railroad. That would be just about a shellproof route for at least the most vital materials, such as certain drugs and hospital supplies, and possibly the rarer metals used in alloying steel.

Arctic Gardens

One aspect of the Soviet venture in the Arctic that never fails to make the stranger's eyes pop out is the cultivation of vegetables in the Far North. To be sure, we have been doing that in Alaska ourselves, but for the most part not quite so close to the Pole. Successful outdoor crops thus far have been principally salad vegetables such as radishes and cabbage, and (with somewhat less éclat) potatoes. And the workers' wives have even raised bright flowers around their houses. Moreover, the presence of fair numbers of horses and cows has necessitated the raising of hay.

One of the factors most likely to be overlooked by anybody unused to high latitudes is the very long day of the Arctic and sub-Arctic regions. The vegetables and hay get 24 hours of sunlight every day during the greater part of their growing season. Naturally they grow fast and get big.

Sometimes special breeds are necessary, for this very reason. When the big white radishes that Russians like so well were attempted in the North, they all ran to leaves and produced small, stringy, inedible roots. But geneticists worked out a new strain that would take the long Arctic daylight and turn it into enormous radishes as big around as a man's leg.

Even in the island outposts vegetables are raised, in underground chambers

RADIO

July 13, 4:15 p. m., E.S.T.
FOUR RULES OF THE ROAD—Dr. H. C. Dickinson of the National Bureau of Standards.

July 20, 4:15 p. m., E.S.T.
SCIENTISTS OF THE FUTURE—Dr. Gerald Wendt, Director of the American Institute of the City of New York.

In the Science Service series of radio discussions over the Columbia Broadcasting System.

insulated with wood and fur and lighted only with big incandescent lamps that get their power from huge windmills. This is admittedly a costly way to get one's "greens" but one must have them somehow, and this method appears to be cheaper than flying them in by airplane.

At any rate, such heroic methods used to get nothing more vital than a bowl of salad, one must admit the young Muscovites up there in the Arctic are cheerfully ready to tackle tougher jobs with the requisite vim.

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Science News Letter, July 10, 1937

PLANT PHYSIOLOGY

Cane Leaves Form Sugar Even When Cut From Plant

SUGAR cane leaves can form cane sugar when they are detached from the stalk and kept in the dark, supplied with the two simpler sugars, glucose and fructose, or with either one of them alone.

Experiments developing these points, performed by Dr. Constance E. Hartt, research plant physiologist for the Hawaiian Sugar Planters' Association, give further support to the theory that conversion of simple into complex sugars can take place in leaves.

Science News Letter, July 10, 1937

A new process for preserving newspaper is intended for use in treating valuable clippings and pages.

Salicylic acid, from which aspirin is derived, was discovered a century ago, but not until 1874 could it be made at moderate cost for general use.

A mysterious old sunken ship in Hamble River, England, is now believed to be the *Grace Dieu* of Henry the Fifth's navy, built in 1418 and famous then as the biggest vessel afloat.

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