and then return this year to nest. Some have done so and the plan is being expanded.

Niska staff also conduct research on the reproduction and maintenance of waterfowl in captivity. The station has bred several species which have been hard to propagate in captivity, including the majestic whistling swan.

HATCHING PROBLEMS

The Niska research facilities include modern electric incubators and brooders, the bulk of the hatching being done in seven large incubators, each having a holding capacity of about 2,500 duck eggs or 720 goose eggs.

Hatching waterfowl is not a simple matter. The eggs have to be kept slightly moist at all times, just as if they were in contact with the moist feathers of a female duck. Consequently, the incubators at Niska have specially-designed electric humidifiers which drip water from the top and spray a fine mist from the bottom so that the eggs incubate at the proper humidity.

Another problem is that the large eggs of geese and swans generate a surprising amount of heat, and too much heat will kill the gosling and duckling embryos. To prevent this, the incubators have small, thermostatically-controlled solenoids which automatically allow cold water to enter the incubator cooling coils when the temperature rises to 100 degrees.

The incubation period varies among the different species of waterfowl. The tiny bluewinged teal egg hatches in 23 days, while the trumpeter swan egg takes 35 days. An egg from a Canada goose takes 28 days to hatch. As the eggs are incubating, they are "candled" periodically by the Niska staff. The candling process involves holding the egg against an electric "candler" which projects a strong beam of light through the egg, thus exposing the developing duckling or gosling embryo. The first candling is done to ensure that all the eggs in the incubators are fertile. Infertile eggs are immediately discarded. Subsequent candlings show whether the embryo inside is alive and growing.

After the duckling and goslings are hatched, they are brooded in electric brooders, each having five tiers. The young waterfowl are kept in these brooders for three to four weeks, after which they would no longer need to be brooded in nature.

WATERFOWL PARK

The research station, however, is only part of the work of the foundation. The other portion is the Kortright Waterfowl Park.

"The waterfowl park was opened to the public in 1967," says Bill Carrick. "It was named in honour of Francis H. Kortright who, as founder of the Canadian National Sportsmen's Show, must rank as one of Canada's outstanding conservationists. Mr. Kortright, the author of *Ducks, Geese and Swans of North America,* also ranks as one of this continent's most knowledgeable waterfowl authorities."

Kortright Waterfowl Park has on exhibit the finest collection of wildfowl in North America. The collection, which numbers about 2,000 birds of more than 60 species from all parts of the world, attracts thousands of visitors every year, ranging from ardent bird-watchers to families out for a casual stroll.

The park also offers unrivalled opportunities for photographing ducks and geese at close range. During the spring and early fall, natural history classes from many schools make field trips to the park. Last year, over 200 such classes visited Kortright.

The purpose of the Kortright Waterfowl Park is to arouse public interest and support for waterfowl management and conservation by means of the display of wild waterfowl. It ensures that the legacy provided by the sight of wild ducks slanting into a marsh against a summer sunset, the very act of life expressed in a skein of migrating geese silhouetted against the spring sky, or the grandeur of the distant swans' voices softly penetrating the evening mists of autumn, will not be given up by our generation or by those who follow us.

Kortright Waterfowl Park, Guelph, part of a 100-acre wildlife sanctuary, incorporates a research station and (left) *the beautiful waterfowl park, which is open to the public.*