

in a field near Simpson, Sask. A farmer there who had seen exploders used successfully in experimental projects bought one of his own.

If the cost of the exploder is amortized over a period of five years, it costs only \$13.00 per year. The cost of operation of one of these exploders using an acetylene generator is approximately 12 cents a day. Carbide, which is used to generate the acetylene, sells for about 12 cents a pound and the generator uses about a pound a day. These exploders can also be operated from acetylene bottles. The cost of adapting the exploder is approximately \$30.00, which could also be amortized over five years. The cost of operating the exploders from bottled acetylene is 40 cents a day. That additional cost, however, provides a supply of acetylene from which the exploder

will operate automatically for three weeks, with only sufficient attention to ensure that the machine is actually working. Machines using carbide generators must have the generators re-charged every 18 to 24 hours. Ordinarily there is more than 28 cents worth of value in time and gasoline in avoiding the necessity of re-charging the generator every day.

However, even if the use of acetylene exploders was widespread, we must recognize that cranes would still cost the farmer money either in actual crop losses or purchasing methods of control. The only way in which the farmer can come to accept the cranes is through relief from those burdens. It is important to us as naturalists to provide for such measures if we hope to maintain the status of the Sandhill Crane.

Combating an Outbreak of Botulism at Old Wives Lake (1959)

By **W. B. Hyshka**, Conservation Officer, Moose Jaw

I was first made aware of the outbreak of disease among the waterfowl at Old Wives Lake by a member of the Fish and Game League, and later by a member of the U.S.F. and W.S. banding crew—this was approximately July 28, 1959. On August 2, aided by members of the Moose Jaw Fish and Game League, South Sask. Wildlife, and the Bateman Branch of the South Sask. Wildlife, the entire shoreline from the bridge at Courval to Dunkirk was covered—all dead ducks were piled up and live sick ones released to fresh water. Meanwhile, H. Deighton had organized the Assiniboia and Gravelbourg Fish and Game Leagues and had covered the remaining half of the lake. It was estimated that 4000 dead ducks were picked up on the initial clean-up and about 300 live ducks released to new waters. On subsequent trips the ducks were burned, additional dead ducks picked up and sick ones again released to fresh water.

The dead ducks were approximately 50% Pintail, 25% Mallard, 10% Redhead and Canvasback, and the remaining 15% included Lesser Scaup, Gadwall and a few Ruddy and

Blue-winged Teal. The sex-ratio was about 1:1.

On August 5, three Zon automatic exploders were received from Ducks Unlimited and set out on the east shore of Old Wives Lake. The east shore and the Isle of Bays appeared to be hardest hit by the outbreak. Prior to the setting out of the Zons, all ducks were removed from two miles of shoreline, and the Zons were placed along the one-mile stretch which seemed to be the hardest hit. The Zons were set out on points of land extending into the lake approximately one third of a mile apart. The area was checked 48 hours later and it was found that the unprotected area recorded 87 dead ducks and the Zon area only 14. The Zons were left out for 7 days with the total ducks being found in the unprotected area being nearly 200, while only 27 were found in the area protected by the Zons. The Zons were observed in action—ducks would settle in and feed until the Zons exploded, then immediately take off. The Zons were set to fire so there was little time lapse between each explosion. Shorebirds, gulls and terns rose when the gun

discharged but settled back to feed on the shore almost instantly—it appeared that the guns worked much better for ducks than shorebirds.

On August 10, a trip was made to the Isle of Bays with Dr. R. Connell, Dept. of Veterinary Science, University of Saskatchewan. We walked along the entire shoreline of the island and estimated roughly that 7000 birds had died. The disease (Dr. Connell was not sure whether ducks were dying from botulism or algae or a combination of both) was pretty well over by this date and less than 100 sick ducks were found.

The Zons were picked up on August 11 as the outbreak had subsided after some rain had fallen and the temperatures had dropped somewhat.

Ducks Unlimited staff have since indicated that they would be in a position to supply 20 of more Zons for next season should another outbreak occur. It is felt that since any of their projects which raise 10,000 ducks is considered an “excellent” project, a project which would prevent a loss of 10,000 is in reality as good as an additional project, and perhaps less costly. The Department of Natural Resources has been asked to cooperate with Ducks Unlimited in reporting promptly any outbreaks and in interesting sportsmen’s groups in looking after Zons if they are required. Various aspects of the problem will be discussed at the Fish and Game League convention at Fort Qu’Appelle, February 11-13.

Bird Houses Project at the Saskatchewan Training School

By **A. J. Beddie**, Superintendent, Sask. Training School, Moose Jaw



Manual Training Class at Sask. Training School

The boys in the manual training classroom at the Saskatchewan Training School have, for some time, been making bird boxes. Most of these boxes are of a comparatively simple design because interested purchasers wished this type.

The Moose Jaw Natural History Society has a spring project of placing bird boxes and feeding stations in the local parks and is encouraging citizens to do the same. The Society contacted the Training School to ask for boxes and stations to suit the needs of different species. It is hoped to make colony nests for martins, and suitable nests for swallows, wrens and bluebirds. The variety of sizes and designs adds considerable interest to the making, and stimulates an interest in the different birds.

We hope to have boxes around the School which will be of value to the pupils in their nature studies.

Mr. Bard, Director of the Saskatchewan Museum of Natural History, visited the School last fall and expressed interest in the boys’ work and very kindly offered to help dispose of their boxes at the Museum. We are most grateful for this offer since it adds purpose to the boys’ work, and gives incentive to making a more finished product.

The bird nesting boxes will sell for \$1.00 to \$2.50 for simple basic types, with more elaborate houses proportionately priced. The price of the projected martin colony house will be around \$20.00. Some feeders (self-feed) are available at \$2.50 Shipping charges extra. Write **Dr. A. J. Beddie**, Sask. Training School, Moose Jaw.