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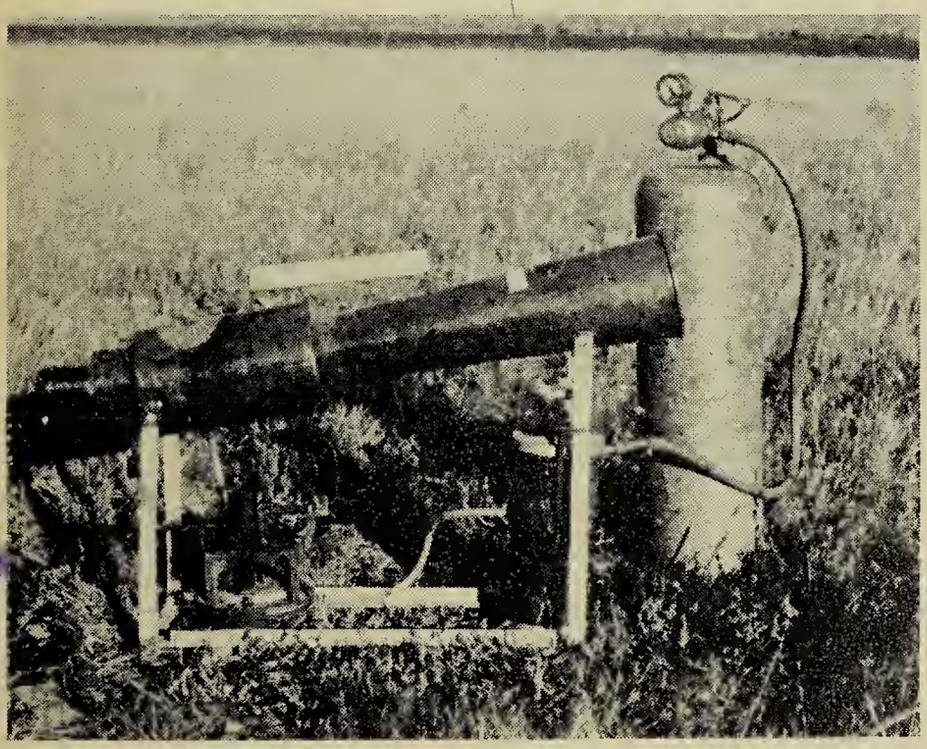
The Use of Exploders in Protecting Crops Against Sandhill Crane Depredation

By **W. J. D. Stephen,** Canadian Wildlife Service, Saskatoon



Zon Acetylene Exploder
Oct. 5, 1959, Thackeray Lake, Sask.

In an article on Sandhill Cranes in the last issue of the **Blue Jay** (XVII: 141-2), T. A. Harper posed the provocative question: "How much are Sandhill Cranes worth to you?" To this question the agriculturist would give a negative answer because he is naturally inclined to regard the Sandhill Crane as a destructive bird, of nuisance value only. Some of the rest of us, who call ourselves naturalists, do realize the positive value of the Sandhill Crane and ask for its protection, but we do very little toward finding a solution to the problem of crop depredation which would help to reinstate the bird in the farmer's eyes. Many of the farmers of this country are naturalists themselves, whether they know it or not. They, too, would come to think of the Sandhill Crane as a valuable part of our wildlife legacy, if they could be protected from the damage it does to their crops.

There are several ways of giving Sandhill Cranes some positive value in the eyes of the agriculturist. For example, we might encourage people to look on them as valuable game birds by opening a hunting season and making it necessary to have a licence to kill them!

More conservatively, there are other practical measures that are worth investigating. Exploders and other such devices have been used to prevent duck depredations. Last October one of these exploders was used to prevent cranes from landing

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