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STRYCHNINE POISONING IN CANADA GEESE

On June 1st, 1968, a flock of about twenty Canada Geese (*Branta canadensis*) were observed flying in a ragged "V" at an estimated altitude of 600 feet over the City of Calgary, Alberta, Canada. Suddenly, six birds plummeted from the sky hitting the ground within a one block area. The falling birds came from all parts of the flight and were later submitted to the Veterinary Services Laboratory for post-mortem examination.

The birds which were non-breeding adults and subadults of both sexes, were well fleshed and weighed from 8 to 10½ lbs. All the birds were x-rayed in order to locate any lead shot. Well encapsulated lead shots were found in two birds but no fresh gun shot wounds were found. All birds examined had oat grain in their gizzards. The most outstanding lesions noted were multiple fractures, massive internal hemorrhages, and ruptured internal organs. No lesions sugges-

tive of infectious disease were noted in any of the internal organs. The results of bacteriological examination were not significant.

Pools were made of livers and of gizzard contents for toxicological examination. Traces only of D.D.T., D.D.E., and D.D.D. were found in both gizzard contents and livers. Strychnine was found in gizzard contents (8.4 mg.) and in livers. The level of strychnine in pooled livers was 0.213 mg. percent.

A few days after hearing of the above incident, a farmer admitted to a conservation officer that he had put gopher bait containing strychnine on the surface of the ground close to gopher holes early in the spring. On the following morning, he had found two dead geese and one goose which was unable to fly. This latter goose was able to take refuge on a nearby slough.

Discussion

Death was due to injuries received on impact with the ground and buildings yet strychnine was at least indirectly responsible for the deaths. In 1959, the use of strychnine bait for the extermination of magpies was investigated. (Personal communication — Dave Stelfox, Plant Industry Division, Alberta Department of Agriculture.) Poisoned magpies were observed to plunge to the snow, recovered in a few minutes, and flew off again. Jones states that in strychnine poisoned animals, spinal or tonic convul-

sion* can be initiated by the slightest external stimulus such as touching, talking, or sudden noise. (Veterinary Pharmacology and Therapeutics — L. Meyer Jones, 1st edition, Iowa State College Press.) It is postulated that a loud noise or an alarm cry caused the six poisoned geese to go into a tonic convulsion. Impact with the ground after falling from that altitude resulted in death—in contrast to the magpies which fell only a few feet into the snow.

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