



Agriculture and
Agri-Food Canada

Food Production
and Inspection Branch
Plant Industry Directorate

Agriculture et
Agro-alimentaire Canada

Direction générale,
Production et Inspection des aliments
Direction de l'industrie des produits végétaux

Canada

Note to CAPCO

C92-09

Strychnine

Reduction of allowable use pattern

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This bulletin is published by the Information Division of the Plant Industry Directorate. For further information, please contact:

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Background

Products containing strychnine (alkaloid or sulphate), have been registered in Canada since 1928. These products are effective in the control of skunks, large predators, birds, commensal rodents and field rodents:

- ! large predators, skunks, certain birds - products for use only by or under supervision of provincial government;
- ! rodents - restricted class products for use by PCOs and/or farmers.

Strychnine, however, has a high potential for causing secondary poisoning of non-target species. Furthermore, the product's mode of action (acute toxicant) and the lack of a good antidote make this pesticide treatment undesirable by current standards.

In the U.S., there are 43 (currently registered) products containing strychnine or strychnine sulfate. Uses are primarily directed to the control of pocket gophers and ground squirrels. The EPA in their registration announcement of October 4, 1991, have indicated that supporting data on required for strychnine sulfate.

Canadian regulatory officials have actively pursued the goal of replacing older pesticides when more environmentally acceptable and species-specific alternatives exist.

Agriculture Canada has carried out extensive negotiations, over a 2-year period with those provinces where these products are largely used, i.e., Alberta, British Columbia, Manitoba, and Saskatchewan. The goal is to eliminate or reduce strychnine use where acceptable alternative pesticides are available. The Western Forum and other interested parties have strongly supported the search for replacement products.

Regulatory Decision

In order to reduce both the allowable use pattern and the potential misuse of strychnine, Agriculture Canada will be taking the following regulatory actions:

1. For field rodent control. Limit the end-use formulations to “ready-to-use-bait” containing 0.3-0.4% strychnine. This action will eliminate sales of concentrates to end users and avoid the need for users to make their own bait. The use of strychnine for field rodent control (ground squirrels, pocket gophers) will be considered only as a below-ground placement or for use in a protected bait station.

Manufacturing concentrates will be registered to allow for the commercial formulation of ready-to-use strychnine products.

2. Because alternatives are available for commensal rodents (house mice) label claims for this use will not be acceptable.
3. Use of strychnine by provinces in their predator-control programs will be continued under current conditions, i.e., with the approval of provincial wildlife specialists. This use is highly restricted and well controlled.
4. The use of strychnine for the control of pigeons as a specialized use by Pest Control Operators will be maintained on restricted class labels.

The regulatory actions outlined in this document will become effective on December 31, 1992. Registrants affected by this Note are requested to submit applications for amendment and new draft labels. The current registrants have been consulted regarding the new restrictions and have agreed to support these initiatives. Attachment I represents a model label outlining the acceptable use pattern.

Please direct any inquiries regarding this Note to CAPCO to:

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Distribution:

Canadian Association of Pesticide Control Officials
Public Interest Groups
User Groups

[SAMPLE LABEL]

[PRINCIPAL DISPLAY PANEL]

Product Name

Strychnine Rodenticide Bait (Ready-To-Use)
for the control of Pocket Gophers and Grown Squirrels

DANGER



POISON

RESTRICTED

READ THE LABEL BEFORE USING

GUARANTEE: Strychnine range.....0.3-0.4%

REGISTRATION NO. 00000 PEST CONTROL PRODUCTS ACT

NET CONTENTS

Your company, Your street (or P.O. Box no.)

Your city, Your province, Postal Code

NOTICE TO USER: This control product is to be used only in accordance with the directions on this label. It is an offense under the *Pest Control Products Act* to use a control product under unsafe conditions.

NATURE OF RESTRICTIONS: For sale only to pest control operators, farmers and persons authorized in government-approved pest control programs where the vendor maintains a record of sales including the name, address and signature of the purchaser along with the quantity of product purchased.

RESTRICTED USES: For control of Northern pocket gopher (*Thomomys talpoides*), Richardson's, Columbian, Franklin and Thirteen-lined ground squirrels (*Spermophilus richardsonii*, *S. columbianus*, *S. franklinii*, and *S. tridecemlineatus*, respectively).

DIRECTIONS FOR USE: Three control measures are acceptable for dispensing strychnine bait to control the Northern Pocket gopher, and two control measures are acceptable for Richardson's, Columbian, Franklin and Thirteen-lined ground squirrels.

Norther Pocket Gopher Control

1. Hand Probes

This bait is to be used only to control pocket gophers in a mechanical hand probe, such as "Gopher Getter". Remove empty container, turn hand probe upside down and screw new bottle of bait up into dispenser. Probe for runway as described on machine's label instructions.

2. Burrow Builders

This bait is to be used only with a mechanical *Burrow Builder*. To build a proper burrow the soil must be damp and the Burrow Builder must be scoured. Probe gopher runways with a broomstick or iron bar to determine depth of the gopher runway. Set machine to the same depth. Make artificial runways 7 m to 10 m apart encompassing the total infested area and then cross the ends. One kg to 2.25 kg of bait will treat one hectare.

3. Hand Placement

Carefully open burrow and place 5-15 g of bait well into the tunnel. Carefully close burrows without covering bait. A repeat treatment may be necessary where burrows have been reopened and are in active use. **TO PROTECT WILDLIFE, DO NOT SCATTER BAIT OUTSIDE BURROW.** The unused bait can be stored in its original container and keeps its killing effect. It is not affected by heat or cold.

Ground Squirrel Control

1. Hand Placement

Place 5-15 g of bait deep in each opened burrow in such a manner that the bait is not visible from the surface. Close the burrow without burying or covering the bait and repeating treatment of any opened burrows after one week.

2. Bait Station

As an additional method of control in an above-ground use. Place bait in a protected bait station and replenish baits as necessary. Remove and bury any dead animals because they can present a significant poisoning hazard to predatory animals. Do not place bait above ground where it is exposed to non-target species unless it is in a protected bait station.

PRECAUTIONS: Do not contaminate feed and foodstuffs. Keep away from children and domestic animals. Empty containers and all grain fragments must be burned or buried deeply. May be fatal if swallowed. Baits should be placed in areas inaccessible to children, pets, wildlife and domestic animals or in tamper-proof bait boxes. This product is toxic to wildlife. Treated seeds exposed on soil surface may be hazardous to birds and other wildlife. bury dead pests; do not leave where carnivores might have access to them. Toxic to all forms of life.

FIRST AID: OBTAIN MEDICAL ATTENTION IMMEDIATELY. If swallowed, induce vomiting **immediately**, before the induction of reflex hyperexcitability (convulsions). It is a safer procedure to ingest a slurry of 30-45 grams of activated charcoal in a glassful of water. Gastric lavage is postponed until the patient is fully premedicated. keep patient in dark, quiet, warm room with minimal sensory stimulation. Intravenously ingest sufficient amounts of barbiturate drugs to prevent further convulsions (amobarbital sodium or pentobarbital sodium). Artificial respiration may become necessary. Keep patient under continual observation until convulsions and reflex irritability have been suppressed and gastric lavage can now be performed safely.

TOXICOLOGICAL INFORMATION: Consult poison control centre for detailed information on treatment for strychnine poisoning.

DISPOSE of empty can by burying at least 50 cm deep, away from any water supply.