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Proposed Re-evaluation Decision

PRVD2022-18

# Predacide Uses of Strychnine and Sodium Monofluoroacetate and their Associated End-use Products

*Consultation Document*

*(publié aussi en français)*

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## Table of Contents

Proposed re-evaluation decision for the predacide uses of strychnine and sodium monofluoroacetate and their associated end-use products.....	1
Proposed re-evaluation decision for the predacide uses of strychnine and sodium monofluoroacetate.....	2
Risk mitigation measures .....	3
International context.....	5
Other information.....	6
Science evaluation .....	7
1.0 Introduction.....	7
2.0 Technical grade active ingredient .....	7
3.0 Human health assessment .....	7
3.1 Strychnine .....	7
3.1.1 Health incident reports.....	8
3.2 Sodium monofluoroacetate .....	8
3.2.1 Health incident reports.....	9
4.0 Environmental assessment.....	9
4.1 Fate and behaviour in the environment.....	9
4.2 Environmental risk characterization .....	9
4.2.1 Risks to aquatic organisms.....	9
4.2.2 Risks to terrestrial organisms.....	9
4.2.3 Review of the product use records.....	10
4.2.4 Environmental incident reports.....	10
4.2.5 Conclusions of the environmental assessment.....	11
4.3 Toxic substances management policy considerations.....	12
4.3.1 Formulants and contaminants of health or environmental concern .....	12
5.0 Value.....	13
5.1 Value of strychnine.....	13
5.2 Value of sodium monofluoroacetate .....	13
List of abbreviations .....	15
Appendix I Registered Products Containing Strychnine and Sodium Monofluoroacetate in Canada <sup>1</sup> .....	16
Table 1 Products containing strychnine subject to proposed label amendments.....	16
Table 2 Products containing sodium monofluoroacetate subject to proposed label amendments.....	16
Appendix II Registered uses of strychnine and sodium monofluoroacetate in Canada <sup>1</sup> .....	17
Table 1 Registered restricted class uses of strychnine in Canada.....	17
Table 2 Registered restricted class uses of sodium monofluoroacetate in Canada.....	18
Appendix III Proposed label amendment for products containing strychnine and sodium monofluoroacetate.....	19
References.....	38

# **Proposed re-evaluation decision for the predacide uses of strychnine and sodium monofluoroacetate and their associated end-use products**

Under the authority of the *Pest Control Products Act*, all registered pesticides must be re-evaluated by Health Canada's Pest Management Regulatory Agency (PMRA) to ensure that they continue to meet current health and environmental standards and continue to have value. The re-evaluation considers data and information from pesticide manufacturers, published scientific reports and other regulatory agencies. Health Canada applies internationally accepted risk assessment methods as well as current risk management approaches and policies.

Strychnine is a toxicant registered as a restricted class end-use product used to kill predators and skunks in Alberta. It is applied as tablets in meat baits (for example, pieces of animal meat or fish or animal carcasses) to kill wolves, coyotes or bears in order to prevent predation of wildlife populations (for example, woodland caribou populations) threatened with extirpation or those wildlife populations that are economically or ecologically important and to prevent human-predator conflicts (i.e., predation of domestic animals such as livestock and attacks on humans). Only authorized employees of Alberta Environment and Parks, Fish and Wildlife Division are permitted to sell, store, handle or use the tablet product. Strychnine is also applied as a solution injected into eggs used as baits to kill skunks in rabies control programs. This solution product is restricted for storage, handling and use to employees of Alberta Agriculture and Food or municipal employees, authorized under the *Alberta Agricultural Pests Act*, provided that such designated or authorized persons are trained and certified.

Sodium monofluoroacetate (also known as Compound 1080) is a toxicant registered as a restricted class end-use product used to kill coyotes and wolves in Alberta. It is used to either protect domestic animals (for example, livestock) or wildlife species at risk from predation, when there is a threat to human safety and/or other problems posed by these predators. Sodium monofluoroacetate is applied as a solution in neck collars worn by livestock prey (i.e., goat or sheep) or as tablets in meat baits (for example, chicken heads or animal carcasses). Only persons authorized under the *Alberta Agricultural Pests Act* and by designated Fish and Wildlife Officers of the Government of Alberta are permitted to store, handle or use these products.

Currently registered products containing strychnine or sodium monofluoroacetate used as predacides can be found in the [Pesticide Product Information Database](#) and in Appendix I. Appendix II lists all uses for which strychnine or sodium monofluoroacetate is presently registered.

This document presents the proposed re-evaluation decision for the predacide uses of strychnine and sodium monofluoroacetate, including the proposed amendments (risk mitigation measures) to protect human health and the environment, as well as the science evaluation on which the proposed decision is based. All products containing strychnine and sodium monofluoroacetate that are registered in Canada as predacides are subject to this proposed re-evaluation decision.

This document is subject to a 90-day public consultation period,<sup>1</sup> during which the public (including the pesticide manufacturers and stakeholders) may submit written comments and additional information to [PMRA Publications](#). The final re-evaluation decision will be published after taking into consideration the comments and information received during the consultation period.

## **Proposed re-evaluation decision for the predicide uses of strychnine and sodium monofluoroacetate**

Under the authority of the *Pest Control Products Act* and based on an evaluation of available scientific information, Health Canada is proposing continued registration of the predicide uses of strychnine and sodium monofluoroacetate and their associated end-use products registered for sale and use in Canada.

With respect to human health, occupational risks were shown to be acceptable when strychnine and sodium monofluoroacetate are used according to the conditions of registration, which includes proposed new mitigation measures, such as revised disposal statements and revisions to personal protective equipment requirements for all products. As there are no feed or food uses for strychnine and sodium monofluoroacetate, no dietary exposure through food or drinking water is expected. As such, the dietary and aggregate risks from the currently registered uses are acceptable.

The environmental risk assessment found that there is a risk of death to individual non-target animals who are exposed to strychnine or sodium monofluoroacetate; however, population level effects are not expected given the limited use of these products. The risks to the environment were shown to be acceptable at the population level when strychnine and sodium monofluoroacetate are used according to the conditions of registration, which includes proposed new mitigation measures, such as improved label use directions, updated reporting requirements and a requirement for a registrant-implemented product stewardship program.

Strychnine has value to kill predators in the government of Alberta's wildlife protection programs to protect species at risk of extirpation, such as the woodland caribou. It is also of value for livestock protection or where predators pose a risk to humans when alternative control strategies are not viable or effective. Lastly, it also has value to kill skunks in the government of Alberta's rabies management program, a serious reportable disease impacting all mammals including people.

Sodium monofluoroacetate collars target specific individual wolves and coyotes preying on small livestock. They have value when alternative methods (both non-lethal and lethal) in a herd management program are insufficient or impractical to protect livestock. Sodium monofluoroacetate tablets have value to kill wolves and coyotes where predation has occurred on livestock or where they pose a risk to humans. They are also of value for use in areas to protect prey animals from extirpation.

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<sup>1</sup> "Consultation statement" as required by subsection 28(2) of the *Pest Control Products Act*.

## **Risk mitigation measures**

Registered pesticide product labels include specific directions for use. Directions include risk mitigation measures to protect human health and the environment and must be followed by law. The proposed label amendments including any revised/updated label statements and/or mitigation measures, as a result of the re-evaluation of the predicide uses of strychnine and sodium monofluoroacetate, are summarized below. Refer to Appendix III for details.

### **Product stewardship program – outline of minimum requirements**

A registrant-implemented product stewardship program is proposed for all products. The goal of this program is to ensure the proper handling and use of restricted-class products containing strychnine or sodium monofluoroacetate.

Registrants are required to:

- Develop and implement training programs for the use of these products that (1) emphasize the requirement to follow the label directions, and (2) educate users that predacides are to be used in an Integrated Pest Management (IPM) program and only when other management methods have been attempted and deemed not feasible or effective.
- Keep, monitor and maintain records (in electronic format) relating to the use of predacides (“Toxicant Use Record”) which must be available upon request at any time for Health Canada review.
  - Users will be required to submit completed copies of the “Toxicant Use Record” for each use of a predicide to registrants.
- Notify Health Canada within 24 hours when any use record indicates use not in accordance with labelled directions. Cease the use of the predicide until Health Canada reviews and provides direction.

## **Human health**

Risk mitigation:

To protect workers from occupational exposure, the following risk-reduction measures are proposed for strychnine and sodium monofluoroacetate:

- Update personal protective equipment (PPE) statements for all restricted class products to current standards and to specify that the PPE must be worn when handling the product or treated baits.
- Revised disposal statements are proposed for all products containing strychnine or sodium monofluoroacetate to require incineration for the disposal of product, treated bait, or carcasses.

## **Environment**

Risk mitigation:

To protect the environment, the following risk-reduction measures are proposed:

### **Strychnine Wolf, Coyote and Black Bear Control Predacide (Reg. No. 20410)**

- To further minimize risk to non-target species, the following are proposed:
  - Updated and clarified reporting requirements.
  - A statement prohibiting the use of drop baits in conjunction with poisoned carcasses.
  - Requirement for an additional site visit after snow melt to ensure sites are properly cleaned/closed.

### **Strychnine Predacide Skunk Control (Reg. No. 24510)**

- Proposed requirement for the use of a bait station with poisoned eggs to reduce risk to non-target species (for example, dogs, coyotes, wolves, bears, cougars).
- To further minimize risk to non-target species, the following are proposed:
  - A statement indicating that this product is only to be used as a last resort in management programs after other management methods have been attempted and deemed not feasible or effective.
  - Updated and clarified reporting requirements.
  - Requirement to retrieve and dispose of poisoned carcasses and to inspect areas around bait stations for poisoned carcasses at least every seven days rather than the current requirement of every 15 days.
  - A statement prohibiting the use of this product in areas where species at risk may consume the poisoned eggs.

### **Sodium Monofluoroacetate Predacide (Reg. No. 18300)**

- To further minimize risk to non-target species, the following are proposed:
  - Updated and clarified reporting requirements.
  - A statement prohibiting the use of drop baits in conjunction with poisoned carcasses.
  - Label improvements to harmonize the use limitations for the target animals (coyote and wolf).
  - Removal of the option to cover baits with vegetation or other material, which may be displaced by wind leaving baits exposed, to prevent access to birds.

### **Sodium Monofluoroacetate Toxic Collar Solution (Reg. No. 24512)**

- To further minimize risk to non-target species, the following are proposed:
  - Updated and clarified reporting requirements.
  - Collar monitoring requirement to be updated from 48 hours to every 24 hours.
  - Requirement to remove the collar if no predation has occurred within 30 days.
  - Requirement to immediately report missing collars to Alberta Agriculture, Forestry and Rural Economic Development.
  - Requirement to dispose of poisoned carcasses (collared livestock and target/non-target organisms) in accordance with labelled disposal requirements.

## Value

Label improvements are proposed to clarify label use directions for strychnine and sodium monofluoroacetate products:

- Amendments to vague site claims (for example, change “domestic animal” to “livestock”, claims, refinement of “wildlife populations that are economically or ecologically important”);
- Change the claim of “control” to “reduces” or “kill” as the goals are different in these programs; (i.e., reduction in predator population in a localized area or targeting individual animals);
- Additional IPM statements related to the use of non-lethal and lethal strategies with these products being intended as a last resort in management programs as indicated in the Product Stewardship Program; and
- For the product used to kill skunks in rabies control programs, addition of the minimum requirements for bait stations (for example, tamper resistance, weather resistance, etc.).

## International context

Strychnine is currently acceptable for use in other Organisation for Economic Co-operation and Development (OECD) member countries, including the United States and Australia.

Internationally and within the available information, no evidence of a ban as of 29 June 2022 to prohibit all uses of strychnine for health or environmental reasons has been identified.

Sodium monofluoroacetate is currently acceptable for use in other Organisation for Economic Co-operation and Development (OECD) member countries, including the United States, Australia and New Zealand. Internationally and within the available information, no evidence of a ban as of 29 June 2022 to prohibit all uses of sodium monofluoroacetate for health or environmental reasons has been identified.

## Next steps

Upon publication of this proposed re-evaluation decision, the public, including the registrants and stakeholders are encouraged to submit additional information that could be used to refine risk assessments during the 90-day public consultation period.

All comments received during the 90-day public consultation period will be taken into consideration in preparation of re-evaluation decision document<sup>2</sup>, which could result in revised risk mitigation measures. The re-evaluation decision document will include the final re-evaluation decision, the reasons for it and a summary of comments received on the proposed re-evaluation decision with Health Canada’s responses.

Refer to Appendix I for details on specific products impacted by this proposed decision.

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<sup>2</sup> “Decision statement” as required by subsection 28(5) of the Pest Control Products Act.



## **Other information**

The relevant confidential test data on which the proposed decision is based (as indicated in the References Section of this document) are available for public inspection, upon application, in Health Canada's Reading Room. For more information, please contact Health Canada's [Pest Management Information Service](#).

## **Additional scientific information**

No additional scientific data are required at this time.

# Science evaluation

## 1.0 Introduction

As per section 16 of the *Pest Control Products Act*, Health Canada's Pest Management Regulatory Agency (PMRA) initiated the re-evaluation of all predicide uses of pest control products containing strychnine, sodium monofluoroacetate, and sodium cyanide. All predicide uses for strychnine and sodium monofluoroacetate were supported by the registrant at the time of re-evaluation initiation and were therefore considered in the review. However, the predicide uses for sodium cyanide were not supported by the registrant and were no longer registered as of 31 December 2021; therefore they were not considered in this re-evaluation.

Appendix I lists all strychnine and sodium monofluoroacetate products that are registered under the authority of the *Pest Control Products Act*. Appendix II lists all the uses for which strychnine and sodium monofluoroacetate are presently registered.

## 2.0 Technical grade active ingredient

There are currently no technical grade active ingredient products registered for the predicide uses of strychnine or sodium monofluoroacetate. Once a final decision is made, registration of a technical grade active ingredient will be required for both strychnine and sodium monofluoroacetate as a condition of continued registration for associated end-use products.

## 3.0 Human health assessment

### 3.1 Strychnine

The health risks of strychnine were previously assessed in the 2005 document, Proposed Acceptability for Continuing Registration PACR2005-08, *Re-evaluation of Strychnine* and a decision published in 2007 Re-evaluation Note REV2007-03, *Update on the Re-evaluation of Strychnine*. It was determined that health risks from the currently registered uses are acceptable. Existing assessments were considered for the hazard and exposure assessment for this re-evaluation. The primary health concern with any strychnine formulation is its acute toxicity to humans. The risk of acute toxicity to applicators is adequately mitigated by the current label requirement to wear chemical-resistant gloves, long pants and a long-sleeved shirt during mixing/loading, applying and other handling activities. In addition, the liquid product also requires wearing a dust mask. As such, occupational risks are acceptable.

As part of the re-evaluation, updates to personal protective equipment (PPE) statements are proposed for all restricted class products to bring them up to current standards and to specify that the PPE must be worn when handling the product or treated baits. In addition, disposal statements will be updated to require incineration for the disposal of product, treated bait, or carcasses (Appendix III). Occupational risks are acceptable when these mitigation measures are in place.

Aggregate exposure is the total exposure to a single pesticide that may occur from food, drinking water, residential, and other non-occupational sources, and from all known or plausible exposure routes (oral, dermal, and inhalation). As there are no feed or food uses for strychnine, no dietary exposure through food or drinking water is expected. As such, the dietary and aggregate risks from the currently registered uses of strychnine are acceptable.

The *Pest Control Products Act* requires that Health Canada consider the cumulative exposure to pesticides with a common mechanism of toxicity. Health Canada did not identify information indicating that strychnine shares a common mechanism of action with other pest control products. Furthermore, all strychnine end use products are restricted and there is no potential for residential, dietary, or aggregate exposure. Therefore a cumulative assessment is not required at this time.

### **3.1.1 Health incident reports**

As of 9 May 2022, Health Canada received one human incident involving strychnine. This incident was classified as Human Major. The report involved a child that was suspected to have ingested a product containing 2% liquid strychnine concentrate (note that this product was cancelled as a result of Re-evaluation Decision RVD2020-06, *Strychnine and Its Associated End-use Products (Richardson's Ground Squirrels)*). Improper product storage played a role in the reported incident. All strychnine product labels, including labels of predacide products, were updated as a result of this incident to ensure prominence, consistency and clarity of label statements pertaining to product storage.

### **3.2 Sodium monofluoroacetate**

The health risks of sodium monofluoroacetate were previously assessed through the 2004 document Proposed Acceptability for Continuing Registration PACR2004-20, *Re-evaluation of Sodium Monofluoroacetate* and a decision published in 2005, Re-evaluation Decision Document RRD2005-05, *Sodium Monofluoroacetate*. It was determined that health risks from the currently registered uses are acceptable. Existing assessments were considered for the hazard and exposure assessment for this re-evaluation. The primary health concern with any formulation of sodium monofluoroacetate is its acute toxicity to humans. The risk of acute toxicity to applicators is adequately mitigated by the current label requirement to wear gloves and the current restriction that it is to be used by trained and certified personnel only.

As part of the re-evaluation, updates to PPE statements are proposed for all restricted class products to bring them up to current standards and to specify that the PPE must be worn when handling the product or treated baits, as applicable. In addition, disposal statements will be updated to require incineration for the disposal of product, treated bait, or carcasses, as applicable (Appendix III). Occupational risks are acceptable when these additional mitigation measures are in place.

Aggregate exposure is the total exposure to a single pesticide that may occur from food, drinking water, residential, and other non-occupational sources, and from all known or plausible exposure routes (oral, dermal, and inhalation).

As there are no feed or food uses for sodium monofluoroacetate, no dietary exposure through food or drinking water is expected. As such, the dietary and aggregate risks from the currently registered uses of sodium monofluoroacetate are acceptable.

The *Pest Control Products Act* requires that Health Canada consider the cumulative exposure to pesticides with a common mechanism of toxicity. Health Canada did not identify information indicating that sodium monofluoroacetate shares a common mechanism of action with other pest control products. Furthermore, all sodium monofluoroacetate end use products are restricted and there is no potential for residential, dietary, or aggregate exposure. Therefore, a cumulative assessment is not required at this time.

### **3.2.1 Health incident reports**

As of 9 May 2022, no human incidents involving sodium monofluoroacetate were submitted to Health Canada.

## **4.0 Environmental assessment**

### **4.1 Fate and behaviour in the environment**

The fate and behaviour of strychnine and sodium monofluoroacetate were previously assessed in Proposed Acceptability for Continuing Registration PACR2005-08, *Re-evaluation of Strychnine* and Proposed Acceptability for Continuing Registration PACR2004-20, *Re-evaluation of Sodium Monofluoroacetate*, respectively. No new fate data were considered in this re-evaluation.

### **4.2 Environmental risk characterization**

#### **4.2.1 Risks to aquatic organisms**

The use of strychnine and sodium monofluoroacetate to control vertebrates is highly restricted, limited to use on land and is not permitted to be used in aquatic ecosystems. Unconsumed poisoned baits and poisoned carcasses must be retrieved and disposed of in accordance with the label directions. As such, the current use patterns of strychnine and sodium monofluoroacetate are unlikely to result in contamination of aquatic ecosystems. A quantitative risk assessment for aquatic organisms was not conducted because exposure of aquatic organisms to these chemicals is expected to be negligible.

#### **4.2.2 Risks to terrestrial organisms**

Strychnine and sodium monofluoroacetate are classified as highly to very highly toxic to birds and mammals. There is a risk of death for non-target animals that consume these products (i.e., direct poisoning), or that consume the carcasses of animals that have been poisoned by these products (i.e., secondary poisoning). In order to mitigate this risk, the use of strychnine and sodium monofluoroacetate is restricted and is limited to provincial employees or designated persons as part of provincial government approved control programs. The current label directions require that poisoned baits be monitored at least every 7 to 15 days to minimize exposure of non-target organisms. Sodium monofluoroacetate toxic collars must be inspected at least every 48 hours.

The predacide products are registered for use in Alberta only. The environmental assessment included a review of product use records from 2010 to 2021 provided by the Government of Alberta and focused on the feasibility of risk management measures rather than a traditional quantitative risk assessment approach.

#### **4.2.3 Review of the product use records**

Since 2010, strychnine has been used to control wolves preying in Alberta's Livestock Protection and Caribou Recovery Programs. The registrants have confirmed that strychnine has not been used to control skunks, coyotes, black bears, or for the protection of human safety, despite being registered for these uses. Sodium monofluoroacetate was used to control coyotes and wolves preying on livestock, the only animals that it is registered to control.

The use records for Strychnine Wolf, Coyote and Black Bear Predacide show that reported non-target deaths resulting from use between 2010-2021 include at least 112 ravens, 38 non-target coyotes, 25 magpies, 15 foxes, three golden eagles, two skunks, one crow, one ermine, one bald eagle, one grizzly bear), one gray jay, one fisher, one lynx and one mink. Reliable data for non-target deaths as a result of the use of sodium monofluoroacetate are not available.

The use records for both active ingredients indicate high levels of potential non-compliance with the label directions, including over-baiting and/or not applying the products in a manner consistent with label directions, failure to maintain proper records, failure to keep records of target/non-target animals killed, failure to dispose of all carcasses and poisoned bait according to label directions, failure to check the bait sites within the required time period, use in general population reduction programs or when predation was not confirmed, and/or leaving poisoned baits in place for longer than permitted.

#### **4.2.4 Environmental incident reports**

In accordance with the Pest Control Products Incidents Reporting Regulation, pesticide registrants are required by law to report incidents that are reported to them, including adverse effects to health and the environment, to Health Canada within a set time frame.

#### **Strychnine**

As of 9 May 2022, Health Canada has received 24 strychnine-related incidents involving domestic animals or the environment. Only two of the incident reports were related to the use of Strychnine Wolf, Coyote and Black Bear Control Predacide in Alberta's woodland caribou recovery program.

The first incident related to the deaths of four dogs. The dogs belonged to a trapper and were unattended when they encountered a strychnine bait site in the Little Smoky caribou range and consumed meat containing strychnine tablets. Strychnine used for wolf control was determined to be the probable cause of the incident. Health Canada determined that the incident was not a result of the misuse of the product.

The second incident relates to the deaths of several target and non-target animals, including one wolf, two coyotes, one lynx, five foxes, one grizzly bear, one great grey owl, and at least eight ravens, following the use of strychnine to control wolves in the Little Smoky woodland caribou range. Health Canada found that strychnine was the probable cause of the deaths of these animals. Some of the deaths reported were based on the presence of feathers, fur, skin, or small portions of the animals. Secondary exposure of non-target organisms to strychnine in this incident is likely given that many of the remains were heavily predated.

A Health Canada inspection of reported non-compliance in the caribou recovery program resulted in enforcement action on the Alberta Government in 2019. Health Canada's subsequent inspections did not identify any instance of non-compliance.

### **Sodium monofluoroacetate**

As of 9 May 2022, Health Canada has received three domestic animal incidents involving sodium monofluoroacetate. The first incident occurred in Alberta where Sodium Monofluoroacetate Predacide was issued to a sheep producer who applied the product to control an ongoing coyote problem. A neighbour's dog strayed onto the sheep producer's land and subsequently died from ingesting the product in poisoned bait. Health Canada determined that it was 'possible' that sodium monofluoroacetate caused the dog's death. No additional risk mitigation measures were proposed as a result of this incident because it was reported that the product was used in accordance with the label and the dog had strayed onto the property.

The second and third incidents involve the deaths of at least four dogs in British Columbia. The cause of death of the dogs in British Columbia was determined by necropsy to be sodium monofluoroacetate poisoning. The source of the sodium monofluoroacetate was not identified as sodium monofluoroacetate is not registered for use in British Columbia.

#### **4.2.5 Conclusions of the environmental assessment**

The incident reports and records of non-target deaths show that the potential for primary and secondary poisoning of non-target animals resulting from the use of these products exists. There is some uncertainty regarding the extent of non-target mortalities as the number of unreported incidents is unknown. Scavengers are known to remove the carcasses of dead animals. Carcasses could be removed shortly after death and would not be counted in monitoring efforts. Furthermore, observation of some dead animals could be missed due to their small size, deterioration or snow cover. As such, non-target mortality may be underestimated.

Given the limited amounts of strychnine and sodium monofluoroacetate used, it is unlikely that population level effects would occur in non-target organisms. The use records did not show mass kills of non-target animals, but rather a few individuals of non-target species at each site. Additional risk mitigation measures are proposed to further minimize risk to non-target species, including improved label directions, updated reporting requirements and a registrant-implemented product stewardship program to improve compliance.

Based on a review of the available scientific information, risks to the environment are acceptable at a population level when strychnine and sodium monofluoroacetate are used according to the proposed label directions, including new mitigation measures (improved label directions, updated reporting requirements and a registrant-implemented product stewardship program). Refer to Appendix III.

### 4.3 Toxic substances management policy considerations

In accordance with the PMRA Regulatory Directive DIR99-03,<sup>3</sup> the assessment of strychnine and sodium monofluoroacetate against Track 1 criteria of Toxic Substances Management Policy (TSMP) under *Canadian Environmental Protection Act* was conducted. Health Canada has reached the conclusions that:

- Strychnine and sodium monofluoroacetate do not meet all Track 1 criteria and are not considered Track 1 substances.
- Strychnine and sodium monofluoroacetate do not form any transformation products that meet all Track 1 criteria.

Please refer to PACR2005-08, *Re-evaluation of Strychnine* and PACR2004-20, *Re-evaluation of Sodium Monofluoroacetate* for further information on the TSMP assessment.

#### 4.3.1 Formulants and contaminants of health or environmental concern

During the review process, contaminants in the technical grade active ingredient and formulants and contaminants in the end-use products are compared against Parts 1 and 3 of the *List of Pest Control Product Formulants and Contaminants of Health or Environmental Concern*.<sup>4</sup> The list is used as described in the Health Canada's Science Policy Note SPN2020-01<sup>5</sup> and is based on existing policies and regulations including the Toxic Substances Management Policy<sup>Error! Bookmark not defined.</sup> and Formulants Policy,<sup>Error! Bookmark not defined.</sup> and taking into consideration the Ozone-depleting Substances and Halocarbon Alternatives Regulations under the *Canadian Environmental Protection Act*, 1999 (substances designated under the Montreal Protocol). Health Canada has reached the following conclusion:

- Strychnine and sodium monofluoroacetate and their end-use products do not contain any formulants or contaminants identified in the *List of Pest Control Product Formulants and Contaminants of Health or Environmental Concern*.

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<sup>3</sup> DIR99-03, *The Pest Management Regulatory Agency's Strategy for Implementing the Toxic Substances Management Policy*

<sup>4</sup> SI/2005-114, last amended on June 24, 2020. See Justice Laws website, Consolidated Regulations, *List of Pest Control Product Formulants and Contaminants of Health or Environmental Concern*.

<sup>5</sup> PMRA's Science Policy Note SPN2020-01, *Policy on the List of Pest Control Product Formulants and Contaminants of Health or Environmental Concern under paragraph 43(5)(b) of the Pest Control Products Act*



## **5.0 Value**

### **5.1 Value of strychnine**

Strychnine is a vertebrate toxicant used to kill large predators (i.e., bears, wolves and coyotes) and skunks. It is a neurotoxin, which acts as an antagonist of glycine and acetylcholine receptors, primarily affecting the motor nerves in the spinal cord that control muscle contraction. Strychnine is applied by either placing tablets in a meat bait to kill predators (bears, wolves and coyotes) or as a solution injected into eggs to kill skunks.

Strychnine has value for use in Alberta to reduce predation on species threatened with extirpation, such as woodland caribou. The product is to be used only by authorized government of Alberta employees in a wildlife protection program consisting of various techniques (for example, habitat protection, restoration and management, predator and alternate prey management, and other stewardship initiatives). As part of the wildlife protection program, alternative non-lethal and lethal strategies must be considered as insufficient or impractical prior to the use of strychnine.

Strychnine has value for the control of bears, coyotes and wolves for the purpose of preventing threats to human safety and for the protection of livestock from predation. Preventing threats to human safety using various non-lethal methods (for example, education of the public to not feed wildlife, securing garbage and pets) are essential in long-term bear, coyote and wolf management. Preventing livestock predation through various non-lethal methods (for example, penning of livestock, livestock protection animals and education of the public) are also essential in long-term bear, coyote and wolf management. However, there are circumstances where non-lethal methods are insufficient and short-term lethal measures by either trapping or hunting may be necessary. Toxicants would be of value when these lethal alternatives are either not viable or ineffective. Cases where alternative measures are not viable or ineffective are expected to be extremely rare.

Strychnine is also of value for use to kill skunks in rabies control programs should an outbreak occur in Alberta. Rabies is a serious disease that has to be reported to the Canadian Food Inspection Agency (CFIA) under the *Health of Animals Act* and Regulations. It impacts the central nervous system of all mammals, including humans. As part of the rabies control program, alternative non-lethal and lethal strategies must be considered insufficient or impractical prior to the use of strychnine.

### **5.2 Value of sodium monofluoroacetate**

Sodium monofluoroacetate is a toxicant placed in a collar used to kill coyotes and wolves when they prey on goats and sheep in Alberta. They target specific individual predators preying on the livestock when alternative methods (both non-lethal and lethal) in a herd management program are insufficient or impractical. Sodium monofluoroacetate has value as an alternative predacide to strychnine in wildlife programs intended to protect species at risk from wolves and coyotes, such as the woodland caribou. Preventing threats to human safety due to predation by various non-lethal methods (for example, education of the public to not feed wildlife, securing garbage and pets) are essential in long-term coyote and wolf management. However, there are



circumstances where non-lethal methods are insufficient and short-term lethal measures by either trapping or hunting may be necessary. Toxicants are of value when these lethal alternatives are either not viable or ineffective. Cases where alternative measures are not viable or ineffective are expected to be extremely rare.

**List of abbreviations**

DIR	Directive
PACR	Proposed Acceptability for Continuing Registration
PMRA	Pest Management Regulatory Agency
PRVD	Proposed Re-evaluation Decision
RVD	Re-evaluation Decision
SPN	Science Policy Note
TSMP	Toxic Substances Management Policy

## Appendix I Registered products containing strychnine and sodium monofluoroacetate in Canada

**Table 1 Products containing strychnine subject to proposed label amendments<sup>1</sup>**

Registration number	Marketing class	Registrant	Product name	Formulation type	Active ingredient (% , g/L)
20410	Restricted	Alberta Environment & Parks, Fish and Wildlife Policy Division	Strychnine Wolf, Coyote & Black Bear Control Predacide	Tablet	Strychnine 38.6%  (155 mg strychnine/tablet)
24510	Restricted	Alberta Government / Alberta Agriculture and Forestry	Strychnine Predacide Skunk Control	Solution	Strychnine 35 mg/mL

<sup>1</sup> As of 2 May 2022, excluding discontinued products or products with a submission for discontinuation

**Table 2 Products containing sodium monofluoroacetate subject to proposed label amendments<sup>1</sup>**

Registration number	Marketing class	Registrant	Product name	Formulation type	Active ingredient (% , g/L)
18300	Restricted	Alberta Government / Alberta Agriculture & Forestry	Sodium Monofluoroacetate Predacide	Tablet	5 mg/tablet
24512	Restricted	Alberta Government / Alberta Agriculture & Forestry	Sodium Monofluoroacetate Restricted Toxic Collar Solution	Solution	10 mg/mL

<sup>1</sup> As of 2 May 2022, excluding discontinued products or products with a submission for discontinuation

## Appendix II Registered uses of strychnine and sodium monofluoroacetate in Canada

**Table 1 Registered restricted class uses of strychnine in Canada<sup>1</sup>**

Site(s)	Pest(s)	Formulation type	Application method	Application rate (a.i.)	
				Maximum single per bait	Maximum single per site
Use Site Category 32: Various Outdoor Sites – vertebrate pest control					
General outdoor: Land where predation has occurred on domestic animals.	Coyote ( <i>Canis latrans</i> )	Tablet	Tablet inserted into Bait	0.155 g a.i./bait	0.465 g a.i./site (3 baits/site)
			Tablet placed in carcass	0.93 g a.i./carcass	0.93 g a.i./site
Land where predator(s) pose a risk to humans.	Wolf ( <i>Canis lupus</i> )		Tablet inserted into Bait	Small baits 0.465 g a.i./bait	(12 baits/site) 5.58 g a.i./site
Land where predation has occurred to protect prey animals from extirpation or to protect ecologically or economically important wildlife.				Large bait 4.65 g a.i./bait	(1 bait/site) 4.65 g a.i./site
	Black bear ( <i>Ursus americanus</i> )		Tablet inserted into Bait	1.86 g a.i./bait	1.86 g a.i./site
General outdoor: Land in a rabies prevention program.	Skunk ( <i>Mephitis mephitis</i> )	Solution	Injected into egg bait	52.5 mg a.i./egg	315 mg a.i./site (6 eggs/site)

<sup>1</sup> As of 2 May 2022, excluding discontinued products or products with a submission for discontinuation

**Table 2 Registered restricted class uses of sodium monofluoroacetate in Canada<sup>1</sup>**

Site	Pest(s)	Formulation type	Application method and equipment	Maximum single application rate (mg a.i./site)
Use Site Category 32: Various Outdoor Sites – vertebrate pest control				
General outdoor: Land where predation has occurred on domestic animals.	Coyote ( <i>Canis latrans</i> )	Tablet	Tablet inserted into bait	30
Land where predator(s) pose a risk to humans.	Wolf ( <i>Canis lupus</i> )			90
Land where predation has occurred to protect prey animals from extirpation or to protect ecologically or economically important wildlife.				
Goats and sheep	Coyote ( <i>Canis latrans</i> )	Solution	Collar bait	600 mg a.i./collar

<sup>1</sup> As of 2 May 2022, excluding discontinued products or products with a submission for discontinuation

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## **Appendix III      Proposed label amendment for products containing strychnine and sodium monofluoroacetate**

Information on labels of currently registered products must not be removed unless it contradicts the following label statements.

### **GENERAL LABEL IMPROVEMENT – ALL PRODUCTS**

For all restricted class products, the NOTICE TO USER section must appear prominently at the top of the secondary display panel, followed by these sections: “NATURE OF RESTRICTION”, “RESTRICTED USES” and “DIRECTIONS FOR USE”. All of these sections must be placed in a box to set the information apart from all other information that is required to be shown on the secondary display panel.

### **GENERAL LABEL AMENDMENT – ALL PRODUCTS**

#### **Under NOTICE TO USER**

Replace:

“This pest control product is to be used only in accordance with the directions on the label. It is an offence under the *Pest Control Products Act* to use this product in a way that is inconsistent with the directions on the label. The user assumes the risk to persons or property that arises from any such use of this product.”

With:

“This pest control product is to be used only in accordance with the directions on the label. It is an offence under the *Pest Control Products Act* to use this product in a way that is inconsistent with the directions on the label.”

#### **Under NATURE OF RESTRICTION**

Add the following:

“Only to be sold to and used by individuals holding an appropriate pesticide applicator certificate or license recognized by the province of Alberta”.

## **HUMAN HEALTH**

### **1. Label Amendments for Restricted Class End-Use Products Containing Strychnine**

#### **Strychnine Wolf, Coyote and Black Bear Control Predacide (Reg. No. 20410)**

##### **Under PRECAUTIONS**

Replace:

“Wear chemical-resistant gloves, long pants and a long sleeved shirt during mixing/loading, application, clean-up and other handling activities.”

With:

“Wear chemical-resistant gloves, long pants and a long sleeved shirt during mixing/loading, application, clean-up and other handling activities with the product or treated bait.”

##### **Under DISPOSAL**

Replace:

“Dispose of the container in accordance with Provincial requirements. For information on disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Contact the manufacturer and the provincial regulatory agency in case of a spill and for clean-up of spills.”

With:

“Unconsumed poisoned baits, all carcasses, toxicant containers, unused, damaged or unusable product must be disposed of by incineration at an approved provincial treatment facility and in accordance with provincial requirements. Contact the manufacture and the provincial regulatory agency in case of a spill, and for clean-up of spills.”

Remove:

“Carcasses Disposal (Target and Non-target species): All carcasses must be disposed of by incineration or burial in a pit no less than 46 cm (approximately 18 inches) deep and then covered to prevent scavengers from unearthing carcasses.”

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**Strychnine Predacide Skunk Control (Reg. No. 24510)****Under PRECAUTIONS**

Replace:

“Wear chemical-resistant gloves, a dust mask, long pants, and a long-sleeved shirt during mixing/loading, application, clean-up and other handling activities.”

With:

“Wear chemical-resistant gloves, long pants, a long-sleeved shirt, and a NIOSH-approved N95 (minimum) filtering facepiece respirator (dust mask) that is properly fit tested during mixing/loading, application, clean-up and other handling activities with the product or treated baits.”

Replace:

“Burn unused baits and poison containers, or bury to a depth of 60 cm.”

With:

“Dispose of unused baits and poison containers by incineration at an approved provincial treatment facility.”

**Under DISPOSAL**

Replace:

“Dispose of the container in accordance with provincial requirements. For more information on the disposal of unused product contact the provincial regulatory agency or the manufacturer.

Carcasses Disposal (Pigeons and Non-target species): All carcasses must be disposed of by incineration or burial in a [pit no less than 46 cm (approximately 18 inches) deep and then covered to prevent scavengers from unearthing carcasses.”

With:

“Unconsumed poisoned baits, all carcasses, toxicant containers, unused, damaged or unusable product must be disposed of by incineration at an approved provincial treatment facility and in accordance with provincial requirements. Contact the manufacture and the provincial regulatory agency in case of a spill, and for clean-up of spills.”



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## **2. Label Amendments for Restricted Class End-Use Products Containing Sodium Monofluoroacetate**

### **Sodium Monofluoroacetate Predacide (Reg. No. 18300)**

#### **Under PRECAUTIONS:**

Replace:

“Wear gloves when handling.”

With:

“Wear a long-sleeved shirt, long pants, chemical-resistant gloves, socks and shoes when handling the product or treated baits.”

#### **Under DISPOSAL**

Replace:

“Burn unconsumed poisoned baits, toxicant containers and damaged or unusable tablets at high temperature or bury to a depth of 60 cm. For information on the disposal of unused, unwanted product and the cleanup of spills contact the provincial regulatory agency or the manufacturer.”

With:

“Unconsumed poisoned baits, toxicant containers, unused, damaged or unusable product must be disposed of by incineration at an approved provincial treatment facility and in accordance with provincial requirements. Contact the manufacture and the provincial regulatory agency in case of a spill, and for clean-up of spills.”

### **Sodium Monofluoroacetate Restricted Toxic Collar Solution (Reg. No. 24512)**

#### **Under PRECAUTIONS:**

Replace:

“Wear gloves when handling.”

With:

“Wear a long-sleeved shirt, long pants, chemical-resistant gloves, socks and shoes when handling collars.”

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**Under DISPOSAL**

Replace:

“Burn damaged or unusable toxic collars at high temperature, or bury to a depth of 60 cm. For information on the disposal of unused, unwanted product contact the provincial regulatory agency or the manufacturer. Contact the manufacture and the provincial regulatory agency in case of a spill, and for clean-up of spills.”

With:

“Damaged or unconsumed toxic collars must be disposed of by incineration at an approved provincial treatment facility and in accordance with provincial requirements. Contact the manufacture and the provincial regulatory agency in case of a spill, and for clean-up of spills.”

**ENVIRONMENT****1. Label Amendments for Restricted Class End-Use Products Containing Strychnine****Strychnine Wolf, Coyote and Black Bear Control Predacide (Reg. No. 20410)****Under ENVIRONMENTAL PRECAUTIONS**

Replace:

“All carcasses and uneaten bait must be disposed of by incineration or burial in a pit or no less than 46 cm (approximately 18 inches) deep and then covered to prevent non-target poisonings.”

With:

“All carcasses and uneaten bait must be disposed of by incineration at an approved provincial treatment facility.”

**Under USE LIMITATIONS**

Replace:

“Baits shall be checked at least every 7 days.”

With:

“Baits shall be checked at least every 7 days. For remote sites requiring access by aircraft, an additional three days is permitted in the event that access to the site is prevented by inclement weather or mechanical failures.”

Replace:

“Accurate up to date records must be kept of all bait use. A complete record of non-target taken and the rate of success of target species taken is to be maintained.”

With:

“The user of the product must complete the Toxicant Use Record for each strychnine bait use at each site visit. Users must submit completed copies of the Toxicant Use Record to the registrant. The registrant must monitor and maintain records in electronic format. Records must be available upon request at any time for Health Canada review.”

Replace:

“Upon termination of a program, baits must be collected and disposed of by incineration or burial in a pit no less than 46 cm (approximately 18 inches) deep and then covered to prevent non- target poisonings.

With:

“All unconsumed poisoned baits and carcasses must be collected and disposed of by incineration at an approved provincial treatment facility to prevent non-target poisonings and protect human health.”

Replace:

“Approved Alberta Fish and Wildlife Division, Policy and Procedures and Directives relating to problem wildlife control (Prevention and Control of Wildlife Damage in Alberta: Manual for Investigating Officers) must be adhered to.

With:

“Toxicant sites that are closed (i.e., all poisoned baits and carcasses removed from the site) while there is snow cover on the ground must be revisited within two weeks of snow melt to ensure that all carcasses were recovered and disposed of.”

## **Under DIRECTIONS FOR USE**

Replace:

“A large bit may be used when warranted.”

With:

“Alternatively, a large bait may be used.”

Add the following text to the beginning of the directions for use for wolf:

“Do not use drop baits in conjunction with large baits. Apply either as:”

Add the following text to the beginning of the directions for use for coyote:

“Do not use drop baits in conjunction with multi-dose baits. Apply either as:”

### At the END OF THE LABEL

Create new section named: **TOXICANT USE RECORD**

Add the following table:

Toxicant Use Record <sup>(1, 2)</sup>						
User (Name/Title/Role/Department/Provincial Applicator Certification Number)						
Toxicant used			STRYCHNINE WOLF, COYOTE & BLACK BEAR CONTROL PREDACIDE (Reg. No. 20410)			
I confirm that I am authorized to use this product as per the product label, and that I have read the label before use (Include signature and date)						
What alternative pest management techniques were used at the site?						
Rationale as to why this product was used rather than the alternative pest management practices.						
Site location. Please include address, lot number, township identifying information and other identifying information (for example, directions and distance from a permanent landmark) to allow another individual to find the location.						
Target species						
Are species at risk that could be exposed to the toxicant known to be present in the area? If so, what species?						
Rationale as to why the use will not affect species at risk						
Site visit (to be conducted at least every 7 days)	Bait placement	Site visit #1	Site visit #2	Site visit #n	Site closure	Site visit: post-snow
Date:						
Days elapsed since the last site visit						
For remote sites, justification if site visit was not possible within at least 7 days of the previous visit						
Number of tablets used						
Method of poisoned-bait placement						

Amount of poisoned-bait consumed/missing						
Amount of poisoned-bait retrieved						
Amount of poisoned-bait disposed of						
Method of poisoned-bait disposal						
Amount of time spent searching for carcasses/distance (area) searched						
Target species: species and number of carcasses retrieved						
Non-target organisms: species and number of carcasses retrieved. Also, submit a Mandatory Incident Reporting Form as per the requirements prescribed in the Incident Reporting Regulations <sup>(3)</sup> .						
Date of carcass disposal						
Method of carcass disposal						
Additional notes (including when snow-melt occurred prior to the final site visit).						

**Notes:**

- (1) This spreadsheet is to be filled in at every site visit. For remote sites, if a site visit cannot be conducted within the required seven days due to inclement weather or mechanical failure, a justification must be provided and the site visit must be performed within an additional three days.
- (2) An electronic version of this information (in spreadsheet format, such as Microsoft Excel) must be maintained and made available to Health Canada upon request.
- (3) Pesticide registrants are required to report to the PMRA all incidents associated with their products. For details on the reporting requirements, such as the type of incidents that must be reported and the timeframes for reporting, please refer to the Incident Reporting Regulations and related Guidance Document provided in the link below:  
<https://www.canada.ca/en/health-canada/services/consumer-product-safety/pesticides-pest-management/registrants-applicants/reporting/mandatory-incident.html>

**Strychnine Predacide Skunk Control (Reg. No. 24510)****Under NATURE OF RESTRICTION**

Replace:

“This product is for storage, use and handling only by designated employees of the Department of Alberta Agriculture and Food, or by municipal employees, authorized under the *Alberta Agricultural Pests Act*, provided that such designated or authorized persons are trained and certified by the Department in the use of this product in accordance with section 14(2) of the Pest and Nuisance Control Regulation of the *Agricultural Pests Act* (2001).”

With:

“This product is for storage, use and handling only by designated employees of the Alberta Ministry of Agriculture, Forestry and Rural Economic Development, or by municipal employees, authorized under the *Alberta Agricultural Pests Act*, provided that such designated or authorized persons are trained and certified by the Ministry in the use of this product in accordance with section 14(2) of the Pest and Nuisance

Control Regulation of the *Agricultural Pests Act* (2001).”**Under USE LIMITATIONS**

Replace:

“The user must maintain accurate records of strychnine bait set locations.

With:

“5. The user of the product must complete the Toxicant Use Record for each strychnine bait use at each site visit. Users must submit completed copies of the Toxicant Use Record to the registrant. The registrant must monitor and maintain records in electronic format. Records must be available upon request at any time for Health Canada review.”

Replace:

“The user must inspect poisoned egg baits at least every 15 days and destroy egg baits within 60 days of initial setting.”

With:

- “6. The user must inspect poisoned egg baits at least every 7 days and destroy egg baits (refer to Disposal section) within 60 days of initial setting.
7. All carcasses of target and non-target organisms must be collected and disposed of by incineration at an approved provincial treatment facility to prevent non-target poisonings.
  8. Do not apply this product if species at risk that might feed on the poisoned eggs are present in your area. For information on species at risk in your area, contact your local provincial or federal wildlife officials.
  9. Do not apply this product in water.

**At the END OF THE LABEL**Create new section named: **TOXICANT USE RECORD**

Add the following table:

Toxicant Use Record <sup>(1)</sup>	
User (Name/Title/Role/Department/Provincial Applicator Certification Number)	
Toxicant used	STRYCHNINE PREDACIDE SKUNK CONTROL (Reg. No. 24510)
I confirm that I am authorized to use this product as per the product label, and that I have read the label before use (Include signature and date)	

<b>What alternative pest management techniques were used at the site?</b>					
<b>Rationale as to why this product was used rather than the alternative pest management practices.</b>					
<b>Location of bait placement. Please include address, lot number, township identifying information and other identifying information (for example, directions and distance from a permanent landmark) to allow another individual to find the location.</b>					
<b>Target species</b>					
<b>Are species at risk that could be exposed to the toxicant known to be present in the area? If so, what species?</b>					
<b>Rationale as to why the use will not affect species at risk</b>					
<b>Site visit (to be conducted at least every 7 days)</b>	<b>Egg placement</b>	<b>Site visit #1</b>	<b>Site visit #2</b>	<b>Site visit #n</b>	<b>Site closure</b>
<b>Date:</b>					
<b>Days elapsed since the last site visit</b>					
<b>Number of poisoned eggs used</b>					
<b>Method of poisoned egg placement</b>					
<b>Amount of poisoned eggs consumed/missing</b>					
<b>Amount of poisoned eggs retrieved</b>					
<b>Amount of poisoned eggs disposed of</b>					
<b>Method of poisoned egg disposal</b>					
<b>Amount of time spent searching for carcasses/distance (area) searched</b>					
<b>Target species: number of carcasses retrieved</b>					
<b>Non-target organisms: species and number of carcasses retrieved. Also, submit a Mandatory Incident Reporting Form as per the requirements prescribed in the Incident Reporting Regulations<sup>(2)</sup>.</b>					
<b>Date of carcass disposal</b>					
<b>Method of carcass disposal</b>					

Notes:

(1) An electronic version of this information (in spreadsheet format, such as Microsoft Excel) must be maintained and made available to Health Canada upon request.

(2) Pesticide registrants are required to report to the PMRA all incidents associated with their products. For details on the reporting requirements, such as the type of incidents that must be reported and the timeframes for reporting, please refer to the Incident Reporting Regulations and related Guidance Document provided in the link below:  
<https://www.canada.ca/en/health-canada/services/consumer-product-safety/pesticides-pest-management/registrants-applicants/reporting/mandatory-incident.html>

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## **2. Label Amendments for Restricted Class End-Use Products Containing Sodium Monofluoroacetate**

### **Sodium Monofluoroacetate Predacide (Reg. No. 18300)**

#### **PRIMARY PANEL**

Add:

“STORE THIS PRODUCT UNDER LOCK AND KEY”

#### **Under RESTRICTED USES**

Remove the following statement (present twice):

“Limitations 1 through 7 inclusive, 12 through 16 inclusive.”

Add the following statement to the beginning of the directions for coyote:

“Do not use single dose baits in conjunction with multi dose baits. Apply either as:”

Delete the following statement (present twice):

“Limitations 8 through 13 inclusive.”

Add the following statement to the beginning of the directions for wolf:

“Do not use small baits in conjunction with large baits. Apply either as:”

#### **Under Use Limitations**

Remove all text under the Use Limitations section and replace with:

##### **Applicable to both coyote and wolf uses:**

1. In livestock or game production, use only to kill offending problem coyotes or wolves in areas where livestock or game herd management is practiced to discourage predation and where predation of livestock or game production animals has occurred within the past 30 days.
2. Place the toxicant tablet in areas protected by intact hide or on the underside of the carcass to minimize hazard to birds.
3. Do not apply this product if species at risk (for example the swift fox) that may feed on sodium monofluoroacetate bait or on poisoned carcasses are present in your (local or specific) area. For information on species at risk in your area, contact the Fish and Wildlife Division of Alberta Sustainable Resource Development.
4. The user of tablets must remove and destroy all poisoned baits within 15 days of initial placement.



5. To prevent hazard of secondary poisoning, all unconsumed poisoned baits removed from use and carcasses of poisoned animals must be incinerated at an approved provincial facility. Vials and unused product must be disposed of at an approved provincial treatment facility and in accordance with provincial requirements.
6. The user of tablets must immediately post warning signs at all normal access points to land where poisoned baits are set and remove signs at end of poison use.
7. The user of tablets must provide a copy of this label to the landholder on whose land tablets are being used.
8. The user of the product must complete the Toxicant Use Record for each sodium monofluoroacetate use at each site visit. Users must submit completed copies of the Toxicant Use Record to the registrant. The registrant must monitor and maintain records in electronic format. Records must be available upon request at any time for Health Canada review.
9. The user of tablets must inspect poisoned bait at least every 7 days.

#### **Additional Use Limitations Specific to Coyote Uses**

1. On public land, this product is for use only by designated Fish and Wildlife Officers of the Alberta Government where predation of livestock by coyotes has been confirmed within the past 30 days.
2. On private land, this product is for use by persons authorized under the *Alberta Agricultural Pests Act*, where predation of livestock by coyotes has been confirmed within the past 30 days.
3. Sodium monofluoroacetate tablets must not be set nearer than 800 metres from the boundary of a hamlet, village, town or city, nor closer than 400 metres to a residence except that of the landholder who has approved the use of the tablets.

#### **Additional Use Limitations Specific to Wolf Uses**

1. For wolf uses, this product is for use only by designated Fish and Wildlife Officers of the Alberta Government.
2. For use where wolf predation of livestock has occurred within the past 30 days.
3. For use where a serious threat to human safety from wolves exists.
4. For use where predation has been identified as one of the primary factors impacting a wildlife population designated as a Species at Risk under Canada's *Species At Risk Act* or Alberta's *Wildlife Act* under official approval by the Minister responsible for wildlife.
5. Do not set bait within 800 metres of an inhabited dwelling.

**At the END OF THE LABEL**

Create new section named: **TOXICANT USE RECORD**

Add the following table:

<b>Toxicant Use Record<sup>(1, 2)</sup></b>						
<b>User (Name/Title/Role/Department/Provincial Applicator Certification Number)</b>						
<b>Toxicant used</b>	SODIUM MONOFLUOROACETATE PREDACIDE (Reg. No. 18300)					
<b>I confirm that I am authorized to use this product as per the product label, and that I have read the label before use (Include signature and date)</b>						
<b>What alternative pest management techniques were used at the site?</b>						
<b>Rationale as to why this product was used rather than the alternative pest management practices.</b>						
<b>Site location. Please include address, lot number, township identifying information and other identifying information (for example, directions and distance from a permanent landmark) to allow another individual to find the location.</b>						
<b>Target species</b>						
<b>Are species at risk that could be exposed to the toxicant known to be present in the area? If so, what species?</b>						
<b>Rationale as to why the use will not affect species at risk</b>						
<b>Site visit (to be conducted at least every 7 days)</b>	<b>Bait placement</b>	<b>Site visit #1</b>	<b>Site visit #2</b>	<b>Site visit #3</b>	<b>Site visit #n</b>	<b>Site closure</b>
<b>Date:</b>						
<b>Days elapsed since the last site visit</b>						
<b>Number of tablets used</b>						
<b>Method of poisoned-bait placement</b>						
<b>Amount of poisoned-bait consumed/missing</b>						
<b>Amount of poisoned-bait retrieved</b>						
<b>Amount of poisoned-bait disposed of</b>						
<b>Method of poisoned-bait disposal</b>						
<b>Amount of time spent searching for carcasses/distance (area) searched</b>						
<b>Target species: species and number of carcasses retrieved</b>						

<b>Non-target organisms: species and number of carcasses retrieved. Also, submit a Mandatory Incident Reporting Form as per the requirements prescribed in the Incident Reporting Regulations<sup>(3)</sup>.</b>						
<b>Date of carcass disposal</b>						
<b>Method of carcass disposal</b>						
<b>Additional notes</b>						

**Notes:**

(1) This spreadsheet is to be filled in at every site visit.

(2) An electronic version of this information (in spreadsheet format, such as Microsoft Excel) must be maintained and made available to Health Canada upon request.

(3) Pesticide registrants are required to report to the PMRA all incidents associated with their products. For details on the reporting requirements, such as the type of incidents that must be reported and the timeframes for reporting, please refer to the Incident Reporting Regulations and related Guidance Document provided in the link below:

<https://www.canada.ca/en/health-canada/services/consumer-product-safety/pesticides-pest-management/registrants-applicants/reporting/mandatory-incident.html>

**Sodium Monofluoroacetate Restricted Toxic Collar Solution (Reg. No. 24512)****Under RESTRICTED USES**

Replace:

“Each toxic collar shall be monitored by the applicator or landholder at least every 48 hours.”

With:

“Each toxic collar shall be monitored by the applicator or landholder at least every 24 hours.”

**Under Use Limitations**

Add the following text:

“5. The user of the product must complete the Toxicant Use Record for each toxic collar used. Users must submit completed copies of the Toxicant Use Record to the registrant. The registrant must monitor and maintain records in electronic format. Records must be available upon request at any time for Health Canada review.

6. Toxic collars must be removed if predation has not occurred within 30 days.

7. Missing collars must be reported to Alberta Agriculture, Forestry and Rural Economic Development within 24 hours. A search for missing collars should be initiated immediately.

8. To prevent hazard of secondary poisoning, any poisoned carcasses must be incinerated at an approved provincial treatment facility. Vials and unused product must be disposed of in accordance with provincial requirements.”

**At the END OF THE LABEL**

Create new section named: **TOXICANT USE RECORD**

Add the following table:

<b>Toxicant Use Record<sup>(1)</sup></b>					
<b>User</b> (Name/Title/Role/Department/Provincial Applicator Certification Number)					
<b>Toxicant used</b>	SODIUM MONOFLUOROACETATE RESTRICTED TOXIC COLLAR SOLUTION (Reg. No. 24512)				
<b>I confirm that I am authorized to use this product as per the product label, and that I have read the label before use</b> (Include signature and date)					
<b>What alternative pest management techniques were used at the site?</b>					
<b>Rationale as to why this product was used rather than the alternative pest management practices.</b>					
<b>Location of use. Please include address, lot number, township identifying information and other identifying information (for example, directions and distance from a permanent landmark) to allow another individual to find the location.</b>					
<b>Target species</b>					
<b>Site visit</b> (to be conducted at least every 7 days)	<b>Collar placement</b>	<b>Site visit #1</b>	<b>Site visit #2</b>	<b>Site visit #n</b>	<b>Site closure</b>
<b>Date:</b>					
<b>Number of toxic collars used</b>					
<b>Number of missing toxic collars, if any</b>					
<b>Target species: number of carcasses retrieved</b>					
<b>Non-target organisms: species and number of carcasses retrieved. Also, submit a Mandatory Incident Reporting Form as per the requirements prescribed in the Incident Reporting Regulations<sup>(2)</sup>.</b>					
<b>Date of carcass disposal</b>					
<b>Method of carcass disposal</b>					

<b>Date of collar removal</b>					
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Notes:

- (1) An electronic version of this information (in spreadsheet format, such as Microsoft Excel) must be maintained and made available to Health Canada upon request.
- (2) Pesticide registrants are required to report to the PMRA all incidents associated with their products. For details on the reporting requirements, such as the type of incidents that must be reported and the timeframes for reporting, please refer to the Incident Reporting Regulations and related Guidance Document provided in the link below: <https://www.canada.ca/en/health-canada/services/consumer-product-safety/pesticides-pest-management/registrants-applicants/reporting/mandatory-incident.html>

## VALUE

### 1. Label Amendments for Clarity of Use Directions for Products Containing Strychnine or Sodium Monofluoroacetate

Addition of Integrated Pest Management (IPM) type statements related to the use of non-lethal and lethal strategies with the use of these products being intended as a last resort in management programs.

- For coyotes, wolves and bear uses:  
“For use only when there is no other practical or effective alternative predator management measures as outlined in a Predator Management Program and considered in the Toxicant Use Record.”
- For skunk uses:  
“For use only when there is no other practical or effective alternative skunk management measures as indicated in the Rabies Control Program and considered in the Toxicant Use Record.”

Add the following statements where relevant to the use pattern of the product:

- For livestock uses:  
“An Integrated Predator Management Program for Livestock that includes the use of alternative management practices (for example, education, monitoring improved livestock husbandry, fencing, guard animals such as dogs, hunting, trapping) must be available and employed at the treatment site prior to the use of this product.”
- For safety of people uses:  
“An Integrated Predator Management Program that includes the use of alternative management practices (for example, public education, proper waste management, trapping, and hunting) must be available and employed at the treatment site prior to the use of this product.”
- For conservation programs:  
“An Integrated Predator Management Program that includes the use of alternative management practices (for example, habitat restoration, hunting, trapping) as outlined in a Species at Risk Conservation Program approved by the Minister responsible for wildlife prior to the use of this product.”

- For skunks:  
“For use in a government approved Rabies Control Program in skunks that includes the use of alternative skunk management practices (for example, public education, monitoring, vaccine use, hunting, trapping) prior to the use of this product.”

## **2. Label Amendments for Restricted Class End-Use Products Containing Strychnine**

### **Strychnine Wolf, Coyote and Black Bear Control Predacide (Reg. No. 20410)**

#### **Revisions where applicable throughout label**

- Amendments to vague site claims (i.e., change “domestic animal” to “livestock”, claims, amend “which is limiting a specific wildlife population density and where the wildlife population is threatened with extirpation or where the wildlife population is economically or ecologically important” to “impacting a wildlife population designated as a Species at Risk under Canada’s *Species At Risk Act* or Alberta’s *Wildlife Act*.”).
- Revise wording relating to the claim of “control” to “kill” as the goals are different in these programs; (i.e., targeting problematic animals; reducing predator populations in conservation programs).

#### **PRIMARY PANEL**

Add the following statement:

“FOR USE IN LIMITED SITUATIONS TO KILL COYOTES, WOLVES AND BEARS”

#### **Under RESTRICTED USES**

Replace:

“For control of offending problem wolf, coyotes or black bears where property damage due to predation has occurred.”

With:

“To kill offending problem wolves, coyotes or black bears where predation has occurred to livestock within the past 30 days.”

#### **Under DIRECTIONS FOR USE**

Add the following sub headers, “Drop Bait:” and “Large Bait:”, under Wolf in order to distinguish between the two sets of instructions.

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**Strychnine Predacide Skunk Control (Reg. No. 24510)****PRIMARY PANEL**

Replace:

“Skunk Control”

With:

“FOR USE IN A GOVERNMENT APPROVED SKUNK RABIES CONTROL PROGRAM TO KILL SKUNKS”

**Under USE LIMITATIONS**

Add the following minimum requirements for bait stations:

“Bait MUST be placed either in tamper-resistant bait stations or in locations not accessible to children, pets, livestock or non-target wildlife. Bait stations used outdoors, above-ground, in locations accessible to children, pets and non-target wildlife must have the following characteristics: (1) be constructed of high-strength material (for example, metal or injection moulded plastic); (2) have an entrance designed so that children cannot reach the bait; (3) have an internal structure that prevents bait from being shaken loose; (4) have an access panel that fastens securely and locks (for example, metal screw or padlock); (5) be resistant to destruction by children and non-target animals; (6) have an entrance designed to minimize that non-target animals reaching the bait; (7) be resistant to destruction or weakening by elements of typical non-catastrophic weather (such as, snow, rain, extremes of temperature and humidity, direct sunshine, etc.) and (8) bear the product name, active ingredient, guarantee, registration number, “WARNING POISON”, and the skull and crossbones symbol.”

**3. Label Amendments for Restricted Class End-Use Products Containing Sodium Monofluoroacetate****Sodium Monofluoroacetate Predacide (Reg. No. 18300)****Revisions where applicable throughout label**

- Amendments to vague site claims (for example, change “domestic animal” to “livestock”, removal of “specific wildlife population” to “impacting a wildlife population designated as a Species at Risk under Canada’s *Species At Risk Act* or Alberta’s *Wildlife Act*”).
- Revise wording relating to the claim of “control” to “kill” as the goals are different in these programs (i.e., targeting problematic animals; reducing predator populations in conservation programs).

For example, on the primary display panel:

Replace:

“COYOTE CONTROL AND WOLF CONTROL”

With:

“FOR USE IN LIMITED SITUATIONS TO KILL COYOTES AND WOLVES”

### **Sodium Monofluoroacetate Restricted Toxic Collar Solution (Reg. No. 24512)**

#### **Revisions where applicable throughout label**

- Revise wording relating to the claim of “control” to “kill” as the goals are different in these programs (i.e., targeting problematic animals; reducing predator populations in conservation programs).

For example, on the primary display panel:

Replace:

“PREDACIDE COYOTE CONTROL”

With:

“FOR USE IN LIMITED SITUATIONS TO KILL COYOTES PREYING ON SHEEP AND GOATS”



## References

### A. Information considered in the health assessment

#### Additional information considered

#### Published information

PMRA document number	Title
<b>Strychnine</b>	
	Proposed Acceptability for Continuing Registration - Re-evaluation of Strychnine. PACR2005-08
	Re-evaluation Note - Update on the Re-evaluation of Strychnine. REV2007-03
<b>Sodium monofluoroacetate</b>	
	Proposed Acceptability for Continuing Registration - Re-evaluation of Sodium Monofluoroacetate. PACR2004-20
	Re-evaluation Decision Document Sodium Monofluoroacetate. RRD2005-05

### B. Information considered in the environmental assessment

#### Studies/information submitted by registrant – Strychnine

PMRA Document Number	Reference
3248707	2021, Strychnine Use for Wolf Control for Livestock Protection in Alberta 2010-2021- Summary Data, DACO: 10.2.4
3248708	2021, Strychnine Use for Wolf Control for Livestock Protection in Alberta-ENFOR Reports 2010-2021, DACO: 10.2.4
3248710	2013, Toxicant Use Report 2012-Woodland Caribou Recovery Program, DACO: 10.2.4
3248711	2014, Toxicant Use Report 2013-Woodland Caribou Recovery Program, DACO: 10.2.4
3248712	2015, Toxicant Use Report 2014-Woodland Caribou Recovery Program, DACO: 10.2.4
3248713	2016, Toxicant Use Report 2015-Woodland Caribou Recovery Program, DACO: 10.2.4
3248714	2017, Toxicant Use Report 2016-Woodland Caribou Recovery Program, DACO: 10.2.4
3248715	2018, Toxicant Use Report 2017-Woodland Caribou Recovery Program, DACO: 10.2.4
3248716	2019, Toxicant Use Report 2018-Woodland Caribou Recovery Program, DACO: 10.2.4
3248717	2020, Toxicant Use Report 2019-Woodland Caribou Recovery Program, DACO: 10.2.4
3248718	2021, Toxicant Use Report 2020-Woodland Caribou Recovery Program, DACO: 10.2.4
3248719	2021, Toxicant Use Report 2021-Woodland Caribou Recovery Program, DACO: 10.2.4
3248720	2013, Caribou Conservation Toxicant Program 2012-Summary, DACO: 10.2.4
3248721	2014, Caribou Conservation Toxicant Program 2013-Summary, DACO: 10.2.4
3248722	2015, Caribou Conservation Toxicant Program 2014-Summary, DACO: 10.2.4
3248723	2016, Caribou Conservation Toxicant Program 2015-Summary, DACO: 10.2.4
3248724	2017, Caribou Conservation Toxicant Program 2016-Summary, DACO: 10.2.4
3248725	2018, Caribou Conservation Toxicant Program 2017-Summary, DACO: 10.2.4
3248726	2019, Caribou Conservation Toxicant Program 2018-Summary, DACO: 10.2.4

PMRA Document Number	Reference
3248727	2020, Caribou Conservation Toxicant Program 2019- Summary, DACO: 10.2.4
3248728	2021, Caribou Conservation Toxicant Program 2020-Summary, DACO: 10.2.4
3248729	2021, Caribou Conservation Toxicant Program 2021-Summary, DACO: 10.2.4
3248731	2020, <i>Species at Risk Act</i> S11 Agreement-Canada-Alberta-Woodland Caribou, DACO: 10.5
3248732	2012, Federal Boreal Woodland Caribou Recovery Strategy, DACO: 10.5
3248738	2021, Strychnine Use for Wolf Control for Livestock Protection in Alberta 2010-2021- Summary Data, DACO: 10.2.4
3248739	2021, Strychnine Use for Wolf Control for Livestock Protection in Alberta-ENFOR Reports 2010-2021, DACO: 10.2.4
3248741	2013, Toxicant Use Report 2012-Woodland Caribou Recovery Program, DACO: 10.2.4
3248742	2014, Toxicant Use Report 2013-Woodland Caribou Recovery Program, DACO: 10.2.4
3248743	2015, Toxicant Use Report 2014-Woodland Caribou Recovery Program, DACO: 10.2.4
3248744	2016, Toxicant Use Report 2015-Woodland Caribou Recovery Program, DACO: 10.2.4
3248745	2017, Toxicant Use Report 2016-Woodland Caribou Recovery Program, DACO: 10.2.4
3248746	2018, Toxicant Use Report 2017-Woodland Caribou Recovery Program, DACO: 10.2.4
3248747	2019, Toxicant Use Report 2018-Woodland Caribou Recovery Program, DACO: 10.2.4
3248748	2020, Toxicant Use Report 2019-Woodland Caribou Recovery Program, DACO: 10.2.4
3248749	2021, Toxicant Use Report 2020-Woodland Caribou Recovery Program, DACO: 10.2.4
3248750	2021, Toxicant Use Report 2021-Woodland Caribou Recovery Program, DACO: 10.2.4
3248751	2013, Caribou Conservation Toxicant Program 2012-Summary, DACO: 10.2.4
3248752	2014, Caribou Conservation Toxicant Program 2013-Summary, DACO: 10.2.4
3248753	2015, Caribou Conservation Toxicant Program 2014-Summary, DACO: 10.2.4
3248754	2016, Caribou Conservation Toxicant Program 2015-Summary, DACO: 10.2.4
3248755	2017, Caribou Conservation Toxicant Program 2016-Summary, DACO: 10.2.4
3248756	2018, Caribou Conservation Toxicant Program 2017-Summary, DACO: 10.2.4
3248757	2019, Caribou Conservation Toxicant Program 2018-Summary, DACO: 10.2.4
3248758	2020, Caribou Conservation Toxicant Program 2019- Summary, DACO: 10.2.4
3248759	2021, Caribou Conservation Toxicant Program 2020-Summary, DACO: 10.2.4
3248760	2021, Caribou Conservation Toxicant Program 2021-Summary, DACO: 10.2.4

#### Studies/information submitted by registrant – Sodium monofluoroacetate

PMRA Document Number	Title
3208505	2017, Coyote Predation Control Manual, DACO: 6.4
3208506	2011, A Woodland Caribou Policy for Alberta, DACO: 6.4
3244636	2021, Spreadsheet of Sodium Monofluoroacetate Usage, DACO: 10.6
3244638	2010, Athabasca, DACO: 10.6
3244639	2010, Barrhead, DACO: 10.6
3244640	2010, Beaver, DACO: 10.6
3244641	2021, Big Lakes, DACO: 10.6

<b>PMRA Document Number</b>	<b>Title</b>
3244642	2010, Birch Hills, DACO: 10.6
3244643	2010, Bonnyville, DACO: 10.6
3244644	2010, Brazeau, DACO: 10.6
3244645	2010, Camrose, DACO: 10.6
3244646	2010, Cardston, DACO: 10.6
3244647	2010, Clear Hills, DACO: 10.6
3244648	2010, Cypress, DACO: 10.6
3244649	2010, Fairview, DACO: 10.6
3244650	2010, Flagstaff, DACO: 10.6
3244651	2010, Foothills, DACO: 10.6
3244652	2010, Forty mile, DACO: 10.6
3244653	2010, Grande Prairie, DACO: 10.6
3244656	2010, Greenview, DACO: 10.6
3244657	2010, Kneehill, DACO: 10.6
3244658	2010, Lac La Biche, DACO: 10.6
3244659	2010, Lac Ste Anne, DACO: 10.6
3244660	2010, Lacombe, DACO: 10.6
3244661	2010, Lamont, DACO: 10.6
3244662	2010, Leduc, DACO: 10.6
3244663	2010, Lesser Slave River, DACO: 10.6
3244664	2010, Lethbridge, DACO: 10.6
3244665	2010, Mackenzie, DACO: 10.6
3244666	2010, Minburn, DACO: 10.6
3244667	2010, Mountain View, DACO: 10.6
3244668	2010, Newell, DACO: 10.6
3244669	2010, Northern Lights, DACO: 10.6
3244670	2010, Northern Sunrise, DACO: 10.6
3244671	2010, Paintearth, DACO: 10.6
3244672	2010, Parkland, DACO: 10.6
3244673	2010, Peace, DACO: 10.6
3244674	2010, Ponoka, DACO: 10.6
3244675	2010, Provost, DACO: 10.6
3244676	2010, Red Deer, DACO: 10.6
3244677	2010, Rocky View, DACO: 10.6
3244678	2010, Smoky Lake, DACO: 10.6
3244679	2010, Smoky River, DACO: 10.6
3244680	2010, Special Areas 2, DACO: 10.6
3244681	2010, Special Area 3, DACO: 10.6
3244682	2010, Special Area 4, DACO: 10.6
3244683	2010, Spirit River, DACO: 10.6

<b>PMRA Document Number</b>	<b>Title</b>
3244684	2010, St. Paul, DACO: 10.6
3244685	2010, Starland, DACO: 10.6
3244686	2010, Stettler, DACO: 10.6
3244687	2010, Strathcona, DACO: 10.6
3244688	2010, Sturgeon, DACO: 10.6
3244689	2010, Taber, DACO: 10.6
3244690	2010, Thorhild, DACO: 10.6
3244691	2010, Two Hills, DACO: 10.6
3244692	2010, Vermilion River, DACO: 10.6
3244693	2010, Vulcan, DACO: 10.6
3244694	2010, Wainwright, DACO: 10.6
3244695	2010, Warner, DACO: 10.6
3244696	2010, Westlock, DACO: 10.6
3244697	2010, Wetaskiwin, DACO: 10.6
3244698	2010, Wheatland, DACO: 10.6
3244699	2010, Willow Creek, DACO: 10.6
3244700	2010, Woodlands, DACO: 10.6
3244701	2010, Yellowhead, DACO: 10.6
3244716	2011, Athabasca, DACO: 10.6
3244719	2011, Barrhead, DACO: 10.6
3244720	2011, Beaver, DACO: 10.6
3244721	2011, Big lakes, DACO: 10.6
3244722	2011, Bighorn, DACO: 10.6
3244723	2010, Bonnyville, DACO: 10.6
3244724	2011, Brazeau, DACO: 10.6
3244725	2011, Camrose, DACO: 10.6
3244726	2011, Cardston, DACO: 10.6
3244727	2011, Clear Hills, DACO: 10.6
3244728	2011, Crwsnest, DACO: 10.6
3244729	2011, Cypress, DACO: 10.6
3244730	2011, Fairview, DACO: 10.6
3244731	2011, Flagstaff, DACO: 10.6
3244732	2011, Forty Mile, DACO: 10.6
3244733	2011, Grande Prairie, DACO: 10.6
3244734	2011, Greenview, DACO: 10.6
3244735	2011, Kneehill, DACO: 10.6
3244736	2011, Lac La Biche, DACO: 10.6
3244737	2011, Lac Ste Anne, DACO: 10.6
3244738	2011, Lacombe, DACO: 10.6
3244739	2011, Lamont, DACO: 10.6

<b>PMRA Document Number</b>	<b>Title</b>
3244740	2011, Leduc, DACO: 10.6
3244741	2011, Lesser Slave River, DACO: 10.6
3244742	2011, Mackenzie, DACO: 10.6
3244743	2011, Minburn, DACO: 10.6
3244744	2011, Mountain View, DACO: 10.6
3244745	2011, Newell, DACO: 10.6
3244746	2011, Northern Lights, DACO: 10.6
3244747	2011, Northern Sunrise, DACO: 10.6
3244748	2011, Paintearth, DACO: 10.6
3244749	2011, Parkland, DACO: 10.6
3244750	2011, Peace, DACO: 10.6
3244751	2011, Pincher Creek, DACO: 10.6
3244752	2011, Ponoka, DACO: 10.6
3244753	2011, Provost, DACO: 10.6
3244754	2011, Red Deer, DACO: 10.6
3244755	2011, Rocky View, DACO: 10.6
3244756	2011, Smoky River, DACO: 10.6
3244757	2011, Special Area 2, DACO: 10.6
3244758	2011, Special Area 3, DACO: 10.6
3244759	2011, Special Area 4, DACO: 10.6
3244760	2011, Spirit Rier, DACO: 10.6
3244761	2011, St Paul, DACO: 10.6
3244762	2011, Stettler, DACO: 10.6
3244763	2011, Strathcona, DACO: 10.6
3244764	2011, Sturgeon, DACO: 10.6
3244765	2011, Taber, DACO: 10.6
3244766	2011, Thorhild, DACO: 10.6
3244767	2011, Two Hills, DACO: 10.6
3244768	2011, Vermilion River, DACO: 10.6
3244769	2011, Vulcan, DACO: 10.6
3244770	2011, Wainwright, DACO: 10.6
3244771	2011, Warner, DACO: 10.6
3244772	2011, Westlock, DACO: 10.6
3244773	2011, Wetaskiwin, DACO: 10.6
3244774	2011, Wheatland, DACO: 10.6
3244775	2011, Willow Creek, DACO: 10.6
3244776	2011, Wooklands, DACO: 10.6
3244777	2011, Yellowhead, DACO: 10.6
3244786	2012, Athabasca, DACO: 10.6
3244787	2012, Barrhead, DACO: 10.6

<b>PMRA Document Number</b>	<b>Title</b>
3244788	2012, Beaver, DACO: 10.6
3244789	2012, Big Lakes, DACO: 10.6
3244790	2012, Bighorn, DACO: 10.6
3244791	2012, Bonnyville, DACO: 10.6
3244792	2012, Brazeau, DACO: 10.6
3244793	2012, Camrose, DACO: 10.6
3244794	2012, Cardston, DACO: 10.6
3244795	2012, Clear Hills, DACO: 10.6
3244796	2012, Crwosnest, DACO: 10.6
3244797	2012, Cypress, DACO: 10.6
3244798	2012, Fairview, DACO: 10.6
3244799	2012, Flagstaff, DACO: 10.6
3244800	2012, Foothills, DACO: 10.6
3244801	2012, Forty mile, DACO: 10.6
3244802	2012, Grande prairie, DACO: 10.6
3244803	2012, Greenview, DACO: 10.6
3244804	2012, Kneehill, DACO: 10.6
3244805	2012, Lac La Biche, DACO: 10.6
3244806	2012, Lac Ste Anne, DACO: 10.6
3244807	2012, Lacombe, DACO: 10.6
3244808	2012, Lamont, DACO: 10.6
3244809	2012, Leduc, DACO: 10.6
3244810	2012, Lesser Slave River, DACO: 10.6
3244811	2012, Lethbridge, DACO: 10.6
3244812	2012, Minburn, DACO: 10.6
3244813	2012, Mountain View, DACO: 10.6
3244814	2012, Newell, DACO: 10.6
3244815	2012, Northern Lights, DACO: 10.6
3244816	2012, Northern Sunrise, DACO: 10.6
3244817	2012, Paintearth, DACO: 10.6
3244818	2012, Parkland, DACO: 10.6
3244819	2012, Peace, DACO: 10.6
3244820	2012, Ponoka, DACO: 10.6
3244821	2012, Provost, DACO: 10.6
3244822	2012, Red Deer, DACO: 10.6
3244823	2012, Smoky Lake, DACO: 10.6
3244824	2012, Rocky View, DACO: 10.6
3244825	2012, Smoky River, DACO: 10.6
3244826	2012, Special Area 2, DACO: 10.6
3244827	2012, Special Area 3, DACO: 10.6

<b>PMRA Document Number</b>	<b>Title</b>
3244828	2012, Special Area 4, DACO: 10.6
3244829	2012, Spirit River, DACO: 10.6
3244830	2012, St Paul, DACO: 10.6
3244831	2012, Starland, DACO: 10.6
3244832	2012, Stettler, DACO: 10.6
3244833	2012, Strathcona, DACO: 10.6
3244834	2012, Sturgeon, DACO: 10.6
3244835	2012, Taber, DACO: 10.6
3244836	2012, Thorhild, DACO: 10.6
3244837	2012, Two Hills, DACO: 10.6
3244838	2012, Vermilion River, DACO: 10.6
3244839	2012, Vulcan, DACO: 10.6
3244840	2012, Wainwright, DACO: 10.6
3244841	2012, Warner, DACO: 10.6
3244842	2012, Westlock, DACO: 10.6
3244843	2012, Wetaskiwin, DACO: 10.6
3244844	2012, Wheatland, DACO: 10.6
3244845	2012, Willow Creek, DACO: 10.6
3244846	2012, Woodlands, DACO: 10.6
3244847	2012, Yellowhead, DACO: 10.6
3244849	2013, Athabasca, DACO: 10.6
3244850	2013, Barrhead, DACO: 10.6
3244851	2013, Beaver, DACO: 10.6
3244852	2013, Big Lakes, DACO: 10.6
3244853	2013, Bonnyville, DACO: 10.6
3244854	2013, Camrose, DACO: 10.6
3244855	2013, Cardston, DACO: 10.6
3244856	2013, Clear Hills, DACO: 10.6
3244857	2013, Cypress, DACO: 10.6
3244858	2013, Fairview, DACO: 10.6
3244859	2013, Flagstaff, DACO: 10.6
3244860	2013, Foothills, DACO: 10.6
3244861	2013, Grande Prairie, DACO: 10.6
3244862	2013, Kneehill, DACO: 10.6
3244863	2013, Lac La Biche, DACO: 10.6
3244864	2013, Lac Ste Anne, DACO: 10.6
3244866	2013, Lacombe, DACO: 10.6
3244867	2013, Lamont, DACO: 10.6
3244868	2013, Leduc, DACO: 10.6
3244869	2013, Lesser Slave River, DACO: 10.6

<b>PMRA Document Number</b>	<b>Title</b>
3244870	2013, Lethbridge, DACO: 10.6
3244871	2013, Minburn, DACO: 10.6
3244872	2013, Mountain View, DACO: 10.6
3244873	2013, Newell, DACO: 10.6
3244874	2013, Northern Lights, DACO: 10.6
3244875	2013, Northern Sunrise, DACO: 10.6
3244876	2013, Paintearth, DACO: 10.6
3244877	2013, Parkland, DACO: 10.6
3244878	2013, Peace, DACO: 10.6
3244879	2013, Pincher Creek, DACO: 10.6
3244880	2013, Ponoka, DACO: 10.6
3244881	2013, Red Deer, DACO: 10.6
3244882	2013, Rocky View, DACO: 10.6
3244883	2013, Saddle Hills, DACO: 10.6
3244884	2013, Smoky River, DACO: 10.6
3244885	2013, Special Area 2, DACO: 10.6
3244886	2013, Special Area 3, DACO: 10.6
3244887	2013, Special Area 4, DACO: 10.6
3244888	2013, St Paul, DACO: 10.6
3244889	2013, Starland, DACO: 10.6
3244890	2013, Stettler, DACO: 10.6
3244891	2013, Strathcona, DACO: 10.6
3244892	2013, Taber, DACO: 10.6
3244893	2013, Thorhild, DACO: 10.6
3244894	2013, Vermilion River, DACO: 10.6
3244895	2013, Wainwright, DACO: 10.6
3244896	2013, Warner, DACO: 10.6
3244897	2013, Wetaskiwin, DACO: 10.6
3244898	2013, Wheatland, DACO: 10.6
3244899	2013, Woodlands, DACO: 10.6
3244900	2013, Yellowhead, DACO: 10.6
3244909	2014, Athabasca, DACO: 10.6
3244910	2014, Barrhead, DACO: 10.6
3244911	2014, Beaver, DACO: 10.6
3244913	2014, Big Lakes, DACO: 10.6
3244914	2014, Bighorn, DACO: 10.6
3244915	2014, Bonnyville, DACO: 10.6
3244917	2014, Brazeau, DACO: 10.6
3244918	2014, Camrose, DACO: 10.6
3244919	2014, Cardston, DACO: 10.6



<b>PMRA Document Number</b>	<b>Title</b>
3244920	2014, Clear Hills, DACO: 10.6
3244921	2014, Crowsnest, DACO: 10.6
3244922	2014, Cypress, DACO: 10.6
3244923	2014, Fairview, DACO: 10.6
3244924	2014, Flagstaff, DACO: 10.6
3244925	2014, Foothills, DACO: 10.6
3244926	2014, Forty Mile, DACO: 10.6
3244927	2014, Grande Prairie, DACO: 10.6
3244928	2014, Greenview, DACO: 10.6
3244929	2014, Kneehill, DACO: 10.6
3244930	2014, Lac La Biche, DACO: 10.6
3244931	2014, Lac Ste Anne, DACO: 10.6
3244932	2014, Lacombe, DACO: 10.6
3244933	2014, Lamont, DACO: 10.6
3244935	2014, Leduc, DACO: 10.6
3244939	2014, Lesser Slave River, DACO: 10.6
3244941	2014, Lethbridge, DACO: 10.6
3244942	2014, Minburn, DACO: 10.6
3244944	2014, Mountain View, DACO: 10.6
3244946	2014, Newell, DACO: 10.6
3244947	2014, Northern Lights, DACO: 10.6
3244948	2014, Northern Sunrise, DACO: 10.6
3244949	2014, Paintearth, DACO: 10.6
3244950	2014, Parkland, DACO: 10.6
3244951	2014, Peace, DACO: 10.6
3244952	2014, Ponoka, DACO: 10.6
3244953	2014, Provost, DACO: 10.6
3244954	2014, Ranchland, DACO: 10.6
3244955	2014, Red Deer, DACO: 10.6
3244956	2014, Rocky View, DACO: 10.6
3244957	2014, Saddle Hills, DACO: 10.6
3244958	2014, Smoky Lake, DACO: 10.6
3244959	2014, Smoky River, DACO: 10.6
3244960	2014, Special Area 2, DACO: 10.6
3244961	2014, Special Area 3, DACO: 10.6
3244962	2014, Special Area 4, DACO: 10.6
3244963	2014, St Paul, DACO: 10.6
3244964	2014, Starland, DACO: 10.6
3244965	2014, Stettler, DACO: 10.6
3244966	2014, Sturgeon, DACO: 10.6

<b>PMRA Document Number</b>	<b>Title</b>
3244967	2014, Taber, DACO: 10.6
3244968	2014, Thorhild, DACO: 10.6
3244969	2014, Two Hills, DACO: 10.6
3244970	2014, Vermilion River, DACO: 10.6
3244971	2014, Vulcan, DACO: 10.6
3244972	2014, Wainwright, DACO: 10.6
3244973	2014, Warner, DACO: 10.6
3244974	2014, Westlock, DACO: 10.6
3244975	2014, Wetaskiwin, DACO: 10.6
3244976	2014, Wheatland, DACO: 10.6
3244977	2014, Willow Creek, DACO: 10.6
3244978	2014, Woodlands, DACO: 10.6
3244979	2014, Yellowhead, DACO: 10.6
3244986	2015, Acadia, DACO: 10.6
3244987	2015, Athabasca, DACO: 10.6
3244988	2015, Barrhead, DACO: 10.6
3244989	2015, Beaver, DACO: 10.6
3244990	2015, Big Lakes, DACO: 10.6
3244991	2015, Bighorn, DACO: 10.6
3244992	2015, Birch Hills, DACO: 10.6
3244993	2015, Bonnyville, DACO: 10.6
3244994	2015, Brazeau, DACO: 10.6
3244995	2015, Camrose, DACO: 10.6
3244996	2015, Cardston, DACO: 10.6
3244997	2015, Clear Hills, DACO: 10.6
3244998	2015, Cypress, DACO: 10.6
3244999	2015, Fairview, DACO: 10.6
3245000	2015, Flagstaff, DACO: 10.6
3245001	2015, Foothills, DACO: 10.6
3245002	2015, Forty Mile, DACO: 10.6
3245003	2015, Grande Prairie, DACO: 10.6
3245004	2015, Greenview, DACO: 10.6
3245005	2015, Kneehill, DACO: 10.6
3245006	2015, Lac La Biche, DACO: 10.6
3245007	2015, Lac Ste Anne, DACO: 10.6
3245008	2015, Lacombe, DACO: 10.6
3245009	2015, Lamont, DACO: 10.6
3245010	2015, Leduc, DACO: 10.6
3245011	2015, Lesser Slave River, DACO: 10.6
3245012	2015, Lethbridge, DACO: 10.6

<b>PMRA Document Number</b>	<b>Title</b>
3245013	2015, mackenzie, DACO: 10.6
3245014	2015, Minburn, DACO: 10.6
3245015	2015, Mountain View, DACO: 10.6
3245016	2015, Newell, DACO: 10.6
3245017	2015, Northern Lights, DACO: 10.6
3245018	2015, Northern Sunrise, DACO: 10.6
3245019	2015, Paintearth, DACO: 10.6
3245020	2015, Parkland, DACO: 10.6
3245021	2015, Peace, DACO: 10.6
3245022	2015, Pincher Creek, DACO: 10.6
3245023	2015, Ponoka, DACO: 10.6
3245024	2015, Provost, DACO: 10.6
3245025	2015, Ranchland, DACO: 10.6
3245026	2015, REd Deer, DACO: 10.6
3245027	2015, Rocky View, DACO: 10.6
3245028	2015, Saddle Hills, DACO: 10.6
3245029	2015, Smoky Lake, DACO: 10.6
3245030	2015, Smoky River, DACO: 10.6
3245031	2015, Special Area 2, DACO: 10.6
3245032	2015, Special Area 3, DACO: 10.6
3245033	2015, Special Area 4, DACO: 10.6
3245034	2015, St Paul, DACO: 10.6
3245035	2015, Starland, DACO: 10.6
3245036	2015, Stettler, DACO: 10.6
3245037	2015, Strathcona, DACO: 10.6
3245038	2015, Sturgeon, DACO: 10.6
3245039	2015, Taber, DACO: 10.6
3245040	2015, Thorhild, DACO: 10.6
3245041	2015, Two Hills, DACO: 10.6
3245042	2015, Vermilion River, DACO: 10.6
3245043	2015, Vulcan, DACO: 10.6
3245044	2015, Wainwright, DACO: 10.6
3245045	2015, Warner, DACO: 10.6
3245046	2015, Westlock, DACO: 10.6
3245047	2015, Wetaskiwin, DACO: 10.6
3245048	2015, Wheatland, DACO: 10.6
3245049	2015, Willow Creek, DACO: 10.6
3245050	2015, Woodlands, DACO: 10.6
3245051	2015, Yellowhead, DACO: 10.6
3245056	2016, Acadia, DACO: 10.6

<b>PMRA Document Number</b>	<b>Title</b>
3245057	2016, Athabasca, DACO: 10.6
3245058	2016, Barrhead, DACO: 10.6
3245059	2016, Beaver, DACO: 10.6
3245060	2016, Big Lakes, DACO: 10.6
3245061	2016, Bighorn, DACO: 10.6
3245062	2016, Bonnyville, DACO: 10.6
3245063	2016, Brazeau, DACO: 10.6
3245064	2016, Camrose, DACO: 10.6
3245065	2016, Cardston, DACO: 10.6
3245066	2016, Clear Hills, DACO: 10.6
3245067	2016, Clearwater, DACO: 10.6
3245068	2016, Cypress, DACO: 10.6
3245069	2016, Fairview, DACO: 10.6
3245070	2016, Flagstaff, DACO: 10.6
3245071	2016, Foothills, DACO: 10.6
3245072	2016, Forty Mile, DACO: 10.6
3245073	2016, Grande Prairie, DACO: 10.6
3245074	2016, Greenview, DACO: 10.6
3245075	2016, Kneehill, DACO: 10.6
3245076	2016, Lac La Biche, DACO: 10.6
3245077	2016, Lac Ste Anne, DACO: 10.6
3245078	2016, Lacombe, DACO: 10.6
3245079	2016, Lamont, DACO: 10.6
3245080	2016, Leduc, DACO: 10.6
3245081	2016, Lesser Slave River, DACO: 10.6
3245082	2016, Lethbridge, DACO: 10.6
3245083	2016, Minburn, DACO: 10.6
3245084	2016, Mountain View, DACO: 10.6
3245085	2016, Newell, DACO: 10.6
3245086	2016, Northern Lights, DACO: 10.6
3245087	2016, Northern Sunrise, DACO: 10.6
3245088	2016, Paintearth, DACO: 10.6
3245089	2016, Parkland, DACO: 10.6
3245090	2016, Peace, DACO: 10.6
3245091	2016, Pincher Creek, DACO: 10.6
3245092	2016, Ponoka, DACO: 10.6
3245093	2016, Provost, DACO: 10.6
3245094	2016, Ranchland, DACO: 10.6
3245095	2016, Rocky View, DACO: 10.6
3245096	2016, Saddle Hills, DACO: 10.6

<b>PMRA Document Number</b>	<b>Title</b>
3245097	2016, Smoky Lake, DACO: 10.6
3245098	2016, Smoky River, DACO: 10.6
3245099	2016, Special Area 2, DACO: 10.6
3245100	2016, Special Area 3, DACO: 10.6
3245101	2016, Special Area 4, DACO: 10.6
3245102	2016, Spirit River, DACO: 10.6
3245103	2016, St Paul, DACO: 10.6
3245104	2016, Starland, DACO: 10.6
3245105	2016, Stettler, DACO: 10.6
3245106	2016, Sturgeon, DACO: 10.6
3245107	2016, Taber, DACO: 10.6
3245108	2016, Thorhild, DACO: 10.6
3245109	2016, Two Hills, DACO: 10.6
3245110	2016, Vermilion River, DACO: 10.6
3245111	2016, Vulcan, DACO: 10.6
3245112	2016, Wainwright, DACO: 10.6
3245113	2016, Warner, DACO: 10.6
3245114	2016, Westlock, DACO: 10.6
3245115	2016, Wetaskiwin, DACO: 10.6
3245116	2016, Wheatland, DACO: 10.6
3245117	2016, Willow Creek, DACO: 10.6
3245118	2016, Woodlands, DACO: 10.6
3245119	2016, Yellowhead, DACO: 10.6
3245129	2017, Athabasca, DACO: 10.6
3245130	2017, Barrhead, DACO: 10.6
3245131	2017, Beaver, DACO: 10.6
3245132	2017, Big Lakes, DACO: 10.6
3245133	2017, Bighorn, DACO: 10.6
3245134	2017, Birch Hills, DACO: 10.6
3245135	2017, Bonnyville, DACO: 10.6
3245136	2017, Brazeau, DACO: 10.6
3245137	2017, Camrose, DACO: 10.6
3245138	2017, Cardston, DACO: 10.6
3245139	2017, Clear Hills, DACO: 10.6
3245140	2017, Clearwater, DACO: 10.6
3245141	2017, Cypress, DACO: 10.6
3245142	2017, Fairview, DACO: 10.6
3245143	2017, Flagstaff, DACO: 10.6
3245144	2017, Foothills, DACO: 10.6
3245145	2017, Forty Mile, DACO: 10.6

<b>PMRA Document Number</b>	<b>Title</b>
3245146	2017, Grande Prairie, DACO: 10.6
3245147	2017, Greenview, DACO: 10.6
3245148	2017, Kneehill, DACO: 10.6
3245149	2017, Lac La Biche, DACO: 10.6
3245150	2017, Lac Ste Anne, DACO: 10.6
3245151	2017, Lacombe, DACO: 10.6
3245152	2017, Lamont, DACO: 10.6
3245153	2017, Leduc, DACO: 10.6
3245154	2017, Lesser Slave River, DACO: 10.6
3245155	2017, Lethbridge, DACO: 10.6
3245156	2017, Minburn, DACO: 10.6
3245157	2017, Mountain View, DACO: 10.6
3245158	2017, Newell, DACO: 10.6
3245159	2017, Northern Lights, DACO: 10.6
3245160	2017, Northern Sunrise, DACO: 10.6
3245161	2017, Paintearth, DACO: 10.6
3245162	2017, Parkland, DACO: 10.6
3245163	2017, Peace, DACO: 10.6
3245164	2017, Pincher Creek, DACO: 10.6
3245165	2017, Ponoka, DACO: 10.6
3245166	2017, Provost, DACO: 10.6
3245167	2017, Ranchland, DACO: 10.6
3245168	2017, Red Deer, DACO: 10.6
3245169	2017, Rocky View, DACO: 10.6
3245170	2017, Saddle Hills, DACO: 10.6
3245171	2017, Smoky Lake, DACO: 10.6
3245172	2017, Smoky River, DACO: 10.6
3245173	2017, Special Area 2, DACO: 10.6
3245174	2017, Special Area 3, DACO: 10.6
3245175	2017, Special Area 4, DACO: 10.6
3245176	2017, Spirit River, DACO: 10.6
3245177	2017, St Paul, DACO: 10.6
3245178	2017, Starland, DACO: 10.6
3245179	2017, Stettler, DACO: 10.6
3245180	2017, Strathcona, DACO: 10.6
3245181	2017, Taber, DACO: 10.6
3245182	2017, THorhild, DACO: 10.6
3245183	2017, Two Hills, DACO: 10.6
3245184	2017, Vermilion River, DACO: 10.6
3245185	2017, Vulcan, DACO: 10.6

<b>PMRA Document Number</b>	<b>Title</b>
3245186	2017, Wainwright, DACO: 10.6
3245187	2017, Warner, DACO: 10.6
3245188	2017, Westlock, DACO: 10.6
3245189	2017, Wetaskiwin, DACO: 10.6
3245190	2017, Wheatland, DACO: 10.6
3245191	2017, Willow Creek, DACO: 10.6
3245192	2017, Woodlands, DACO: 10.6
3245193	2017, Yellowhead, DACO: 10.6
3245197	2018, Acadia, DACO: 10.6
3245198	2018, Athabasca, DACO: 10.6
3245199	2018, Barrhead, DACO: 10.6
3245200	2018, Beaver, DACO: 10.6
3245201	2018, Big Lakes, DACO: 10.6
3245202	2018, Bighorn, DACO: 10.6
3245203	2018, Birch Hills, DACO: 10.6
3245204	2018, Bonnyville, DACO: 10.6
3245205	2018, Brazeau, DACO: 10.6
3245206	2018, Camrose, DACO: 10.6
3245207	2018, Cardston, DACO: 10.6
3245208	2018, Clear Hills, DACO: 10.6
3245210	2018, Clearwater, DACO: 10.6
3245211	2018, Cypress, DACO: 10.6
3245212	2018, Fairview, DACO: 10.6
3245213	2018, Flagstaff, DACO: 10.6
3245214	2018, Foothills, DACO: 10.6
3245215	2018, Forty Mile, DACO: 10.6
3245216	2018, Grande Prairie, DACO: 10.6
3245217	2018, Greenview, DACO: 10.6
3245218	2018, Kneehill, DACO: 10.6
3245219	2018, Lac La Biche, DACO: 10.6
3245220	2018, Lac Ste Anne, DACO: 10.6
3245221	2018, Lacombe, DACO: 10.6
3245222	2018, Leduc, DACO: 10.6
3245223	2018, lesser Slave River, DACO: 10.6
3245224	2018, Lethbridge, DACO: 10.6
3245225	2018, Mackenzie, DACO: 10.6
3245226	2018, Minburn, DACO: 10.6
3245227	2018, Mountain view, DACO: 10.6
3245228	2018, Newell, DACO: 10.6
3245229	2018, Northern Lights, DACO: 10.6

<b>PMRA Document Number</b>	<b>Title</b>
3245230	2018, Northern Sunrise, DACO: 10.6
3245231	2018, Paintearth, DACO: 10.6
3245232	2018, Parkland, DACO: 10.6
3245233	2018, Peace, DACO: 10.6
3245234	2018, Pincher Creek, DACO: 10.6
3245235	2018, Ponoka, DACO: 10.6
3245236	2018, Provost, DACO: 10.6
3245237	2018, Ranchland, DACO: 10.6
3245238	2018, Red Deer, DACO: 10.6
3245239	2018, Rocky View, DACO: 10.6
3245240	2018, Saddle Hills, DACO: 10.6
3245241	2018, Smoky Lake, DACO: 10.6
3245242	2018, Smoky River, DACO: 10.6
3245243	2018, Special Area 2, DACO: 10.6
3245244	2018, Special Area 3, DACO: 10.6
3245245	2018, Special Area 4, DACO: 10.6
3245246	2018, Spirit River, DACO: 10.6
3245247	2018, St Paul, DACO: 10.6
3245248	2018, Starland, DACO: 10.6
3245249	2018, Stettler, DACO: 10.6
3245250	2018, Strathcona, DACO: 10.6
3245251	2018, Sturgeon, DACO: 10.6
3245252	2018, Taber, DACO: 10.6
3245253	2018, Thorhild, DACO: 10.6
3245254	2018, Two Hills, DACO: 10.6
3245255	2018, Vermilion River, DACO: 10.6
3245256	2018, Vulcan, DACO: 10.6
3245257	2018, Wainwright, DACO: 10.6
3245258	2018, Warner, DACO: 10.6
3245259	2018, Westlock, DACO: 10.6
3245260	2018, Wetaskiwin, DACO: 10.6
3245261	2018, Wheatland, DACO: 10.6
3245262	2018, Willow Creek, DACO: 10.6
3245263	2018, Woodlands, DACO: 10.6
3245264	2018, Yellowhead, DACO: 10.6
3245267	2019, Acadia, DACO: 10.6
3245268	2019, Athabasca, DACO: 10.6
3245269	2019, Barrhead, DACO: 10.6
3245270	2019, Beaver, DACO: 10.6
3245271	2019, Big Lakes, DACO: 10.6



<b>PMRA Document Number</b>	<b>Title</b>
3245272	2019, Bighorn, DACO: 10.6
3245273	2019, Birch Hills, DACO: 10.6
3245274	2019, Bonnyville, DACO: 10.6
3245275	2019, Brazeau, DACO: 10.6
3245276	2019, Camrose, DACO: 10.6
3245277	2019, Cardston, DACO: 10.6
3245278	2019, Clear Hills, DACO: 10.6
3245279	2019, Clear water, DACO: 10.6
3245282	2019, Cypress, DACO: 10.6
3245283	2019, Fairview, DACO: 10.6
3245284	2019, Flagstaff, DACO: 10.6
3245285	2019, Foothills, DACO: 10.6
3245286	2019, Grande prairie, DACO: 10.6
3245287	2019, Greenview, DACO: 10.6
3245288	2019, Kneehill, DACO: 10.6
3245289	2019, Lac la Biche, DACO: 10.6
3245290	2019, Lac Ste Anne, DACO: 10.6
3245291	2019, Lacombe, DACO: 10.6
3245292	2019, Lamont, DACO: 10.6
3245293	2019, Leduc, DACO: 10.6
3245294	2019, Lesser Slave River, DACO: 10.6
3245295	2019, Lethbridge, DACO: 10.6
3245296	2019, Minburn, DACO: 10.6
3245297	2019, Mountain View, DACO: 10.6
3245298	2019, Newell, DACO: 10.6
3245299	2019, Northern Lights, DACO: 10.6
3245300	2019, Northern Sunrise, DACO: 10.6
3245301	2019, Paintearth, DACO: 10.6
3245302	2019, Parkland, DACO: 10.6
3245303	2019, Peace, DACO: 10.6
3245304	2019, Pincher Creek, DACO: 10.6
3245305	2019, Ponoka, DACO: 10.6
3245306	2019, Provost, DACO: 10.6
3245308	2019, Ranchland, DACO: 10.6
3245309	2019, Red Deer, DACO: 10.6
3245310	2019, Rocky View, DACO: 10.6
3245311	2019, Saddle Hills, DACO: 10.6
3245312	2019, Smoky Lake, DACO: 10.6
3245313	2019, Smoky River, DACO: 10.6
3245314	2019, Special Area 2, DACO: 10.6

<b>PMRA Document Number</b>	<b>Title</b>
3245315	2019, Special Area 3, DACO: 10.6
3245316	2019, Special Area 4, DACO: 10.6
3245317	2019, St Paul, DACO: 10.6
3245318	2019, Stettler, DACO: 10.6
3245319	2019, Strathcona, DACO: 10.6
3245320	2019, Taber, DACO: 10.6
3245321	2021, Thorhild, DACO: 10.6
3245322	2019, Two Hills, DACO: 10.6
3245324	2019, Vermilion River, DACO: 10.6
3245325	2019, Vulcan, DACO: 10.6
3245326	2019, Wainwright, DACO: 10.6
3245327	2019, Warner, DACO: 10.6
3245328	2019, Westlock, DACO: 10.6
3245329	2019, Wetaskiwin, DACO: 10.6
3245330	2019, Wheatla nd, DACO: 10.6
3245331	2019, Willow Creek, DACO: 10.6
3245332	2019, Woodlands, DACO: 10.6
3245333	2019, Yellowhead, DACO: 10.6
3245337	2020, Athabasca, DACO: 10.6
3245338	2020, Barrhead, DACO: 10.6
3245339	2020, Beaver, DACO: 10.6
3245340	2020, Big Lakes, DACO: 10.6
3245341	2020, Bighorn, DACO: 10.6
3245342	2020, Birch Hills, DACO: 10.6
3245343	2020, Bonnyville, DACO: 10.6
3245344	2020, Brazeau, DACO: 10.6
3245345	2020, Camrose, DACO: 10.6
3245346	2020, Cardston, DACO: 10.6
3245347	2020, Clear Hills, DACO: 10.6
3245348	2020, Clearwater, DACO: 10.6
3245349	2020, Cypress, DACO: 10.6
3245350	2020, Fairview, DACO: 10.6
3245351	2020, Flagstaff, DACO: 10.6
3245352	2020, Foothills, DACO: 10.6
3245353	2020, Forty mile, DACO: 10.6
3245354	2020, Grande Prairie, DACO: 10.6
3245355	2020, Greenview, DACO: 10.6
3245356	2020, Kneehill, DACO: 10.6
3245357	2020, Lac La Biche, DACO: 10.6
3245358	2020, Lac Ste Anne, DACO: 10.6

<b>PMRA Document Number</b>	<b>Title</b>
3245359	2020, Lacombe, DACO: 10.6
3245360	2020, Lamont, DACO: 10.6
3245361	2020, Leduc, DACO: 10.6
3245362	2020, Lesser Slave River, DACO: 10.6
3245363	2020, Lethbridge, DACO: 10.6
3245364	2020, Mackenzie, DACO: 10.6
3245365	2020, Minburn, DACO: 10.6
3245366	2020, Mountain View, DACO: 10.6
3245367	2020, Newell, DACO: 10.6
3245368	2020, Northern Lights, DACO: 10.6
3245369	2020, Northern Sunrise, DACO: 10.6
3245370	2020, Paintearth, DACO: 10.6
3245371	2020, Parkland, DACO: 10.6
3245372	2020, Peace, DACO: 10.6
3245373	2020, Pincher Creek, DACO: 10.6
3245374	2020, Ponoka, DACO: 10.6
3245375	2020, Provost, DACO: 10.6
3245376	2020, Ranchland, DACO: 10.6
3245377	2020, Red Deer, DACO: 10.6
3245378	2020, Rocky View, DACO: 10.6
3245379	2020, saddle Hills, DACO: 10.6
3245380	2020, Smoky Lake, DACO: 10.6
3245381	2020, Smoky River, DACO: 10.6
3245382	2020, Special Area 2, DACO: 10.6
3245383	2020, Special Area 3, DACO: 10.6
3245384	2020, Special Area 4, DACO: 10.6
3245385	2020, Spirit River, DACO: 10.6
3245386	2021, St Paul, DACO: 10.6
3245387	2020, Starland, DACO: 10.6
3245388	2020, Stettler, DACO: 10.6
3245389	2020, Strathcona, DACO: 10.6
3245390	2020, Sturgeon, DACO: 10.6
3245391	2020, Taber, DACO: 10.6
3245392	2020, Thorhild, DACO: 10.6
3245393	2020, Two Hills, DACO: 10.6
3245394	2020, Vermilion River, DACO: 10.6
3245395	2020, Vulcan, DACO: 10.6
3245396	2020, Wainwright, DACO: 10.6
3245397	2020, Warner, DACO: 10.6
3245398	2020, Westlock, DACO: 10.6

<b>PMRA Document Number</b>	<b>Title</b>
3245399	2020, Wetaskiwin, DACO: 10.6
3245400	2020, Wheatland, DACO: 10.6
3245401	2020, Willow Creek, DACO: 10.6
3245402	2020, Woodlands, DACO: 10.6
3245403	2020, Yellowhead, DACO: 10.6
3267867	2021, Use Storage and Handling of Vertebrate Toxicants, DACO: 10.6
3267868	2021, 2010 Reports, DACO: 10.6
3267869	2021, 2011 Reports, DACO: 10.6
3267870	2021, 2012 Reports, DACO: 10.6
3267871	2021, 2013 Reports, DACO: 10.6
3267872	2021, 2014 Reports, DACO: 10.6
3267873	2021, 2015 Reports, DACO: 10.6
3267874	2021, 2016-2021 Reports, DACO: 10.6
3267875	2021, 1080 Cover Letter for F&W additional Info, DACO: 10.6
3267876	2021, 1080 Usage Summary, DACO: 10.6

### **Additional information considered**

### **Unpublished information – Strychnine**

<b>PMRA document number</b>	<b>Title</b>
3255907	Wolf Awareness Alberta Freedom of Information and Protection of Privacy request AB FOIP E18-G-1236
3255908	Wolf Awareness Alberta Freedom of Information and Protection of Privacy request AB FOIP E19-G-3089
3255913	Wolf Awareness Alberta Freedom of Information and Protection of Privacy request AB FOIP E20-G-0611