

May 1, 2020

The Honourable Patty Hajdu, PC, MP
Health Canada
Brooke Claxton Building
70 Colombine Driveway
Ottawa, Ontario
K1A 0K9

Dear Minister,

The Canadian Canola Growers Association (CCGA) respectfully submits this notice of objection, per s 35(1) of the *Pest Control Products Act*, SC 2002, c 28 (the *Act*), regarding RVD2020-06, *Strychnine and Its Associated End-use Products (Richardson's Ground Squirrels) Final Decision*, published March 4, 2020. Due to the lack of consideration given to all available scientific data, as well as the lack of consideration given to the value of strychnine to different sectors of the Canadian economy in RVD2020-06, CCGA requests that you establish a review panel of one or more individuals to review this decision and to recommend whether the decision should be confirmed, reversed or varied, as noted in s 35(3) of the *Act*, and in the *Review Panel Regulations*, SOR/2008-22 (the *Regulations*).

As outlined in ss 2 and 3 of the *Regulations*, this letter shall provide you with the scientific basis for the objection to RVD2020-06, on which the decision was based, of the health and environmental risks and the value of the pest control product; and the evidence to support the objection. It will also highlight for the Minister that the information in the notice of objection raises scientifically-founded doubt as to the validity of the evaluations, on which the decision was based, of the health and environmental risks and the value of the pest control product; and that the advice of expert scientists would assist in addressing the subject matter of the objection.

CCGA represents 43,000 canola farmers from Ontario to British Columbia on national and international issues, policies, and programs that impact farm profitability. A science-based and evidence-based regulatory environment is the foundation upon which the Canadian canola industry, which contributes \$26.7 billion to the Canadian economy annually and supports 250,000 jobs across the country, was built. With more than 90% of the canola produced in Canada being exported to markets around the world, competitiveness with export countries is critical to the industry's continued success.

Our industry relies on a PMRA that has adequate information and resources to undertake its mandate and prevent unacceptable risks to people and the environment related to the use of pest control products. Similarly, farmers rely on PMRA's registration and re-evaluation processes to ensure the pest management products used on their farms are safe for their own use, others, and the environment. A regulatory system that is predictable, transparent and science-based is critical as it encourages innovation in Canada and keeps canola farmers competitive in a global market.

Basis for the Objection to RVD2020-06

Sections 2(c),(d) of the *Regulations* state that a notice of objection shall include “the scientific basis for the objection to the evaluations, on which the decision was based, of the health and environmental risks and the value of the pest control product; and the evidence to support the objection”.

Because PMRA did not deviate from the science assessed in PRVD2018-13, *Strychnine and Its Associated End-use Products (Ground Squirrel Use) Consultation Document*, and RVD2020-06, when considering the validity of their conclusions, these two documents will be considered in conjunction.

PRVD2018-13 and RVD2020-06 posit that the environmental risk assessment undertaken for strychnine has identified risks of concern for species at risk. CCGA supports the protection goals outlined in Species at Risk legislation and supports PMRA in this protection goal. Respectfully, we object to the conclusions drawn from the science relied upon to confirm the environmental risk assessment. The basis of our objection is that invalid conclusions have been drawn from the science available to PMRA.

PMRA Document Number 273370

PRVD2018-13, *Strychnine and Its Associated End-use Products (Ground Squirrel Use) Consultation Document*, and RVD2020-06 refer to PMRA Document Number 2733770¹ (Proulx, 2010) as being particularly pertinent to the decision to deregister strychnine. PRVD2018-13 states that the field evidence of non-target and secondary poisonings caused by strychnine provided by Proulx, 2010, validate the concerns identified in the environmental risk assessment. Proulx, 2010 is a flawed document which presents conclusions not supported by the literature that it cites. This section will outline the conclusions incorrectly drawn by Proulx, 2010, which have been relied upon by PMRA in PRVD2018-13.

PRVD2018-13 notes that Proulx, 2010 identified the deaths of the following non-target organisms due to strychnine:

- 8 horned larks
- 33 deer mice
- 3 chestnut-collard Longspurs
- 2 Common Grackles
- 1 Olive-backed Pocket Mouse
- 2 Western Meadowlarks
- 2 Vesper Sparrows; and
- 1 Northern Harrier

None of these non-target species are listed as requiring special concern, or threatened, in Canada’s species at risk registry.

¹ Gilbert Proulx “Field Evidence of Non-Target and Secondary Poisoning by Strychnine and Chlorophacinone Used to Control Richardson’s Ground Squirrels in Southwest Saskatchewan” (Proceedings delivered at the 9th Prairie Conservation and Endangered Species Conference, Winnipeg, February 2010).

PRVD2018-13 relies on Proulx, 2010 in discussing possible risk to burrowing owls (*Athene Cunicularia*), which are an endangered species requiring protection in Canada. PRVD2018-13 states, that Proulx, 2010 “also found that baiting lead to ground squirrels being found dead on the surface and ground squirrel remains were found in 33% of burrowing owl regurgitation pellets in May”² of 2008. There are two distinct statements in this sentence. 1. Baiting lead to ground squirrels being found dead on the surface. 2. Ground squirrel remains were found in 33% of burrowing owl regurgitation pellets. There is no correlation or causation present in these two events. There is no evidence provided in this sentence of a risk to burrowing owls from RGS having consumed strychnine, given the absence of any causal link. The conclusion that this field evidence validates the concern that there is a risk posed by strychnine to species at risk is objectionable.

PRVD2018-13 finishes its consideration of Proulx, 2010 by drawing a conclusion from several publications cited in that study. It concludes that, “burrowing owls nesting in agricultural fields may adopt a specialized diet centred on an abundance of poisoned ground squirrels (Moulten et al. 2005³ in PMRA Document Number 2733770) and considering this information indicates that the burrowing owl may also feed on dead animals (Coulombe, 1971⁴ in PMRA Document Number 2733770), strychnine-killed ground squirrels may have an impact on the health of owls (James et al.,⁵ 1990 in PMRA Document Number 2733770).”^{6,7} It appears this sentence summarizes the conclusions drawn from the science relied upon to confirm the environmental risk assessment that strychnine should be deregistered.

Considering Moulten et al. 2005, it is important to note that this publication studied the diets of burrowing owls in agricultural areas of Idaho, and found that montane voles represented the greatest percent of biomass pellets in those areas. Squirrel and poison are not words found in Moulten et al. 2005. However, Moulten et al. 2005 does state at page 430 that burrowing owls “in Canada, often avoid agricultural fields (Haug and Oliphant 1990,⁸ Clayton and Schmutz 1999⁹).” Properly considering Moulten et al., it is determinable that burrowing owls in agricultural and non-agricultural areas of Idaho do not consume ground squirrels (and, certainly not ground squirrels treated with strychnine), and that burrowing owls in Canada often avoid agricultural fields where RGS may be found. The conclusion that Moulten et al. 2005 validates the concern that there is a risk posed by strychnine to species at risk is objectionable.

² PRVD2018-13 at page 5

³ Colleen E. Moulton, Ryan S. Brady & James R. Belthoff, “A Comparison of Breeding Season Food Habits of Burrowing Owls Nesting in Agricultural and Non-Agricultural Habitat in Idaho” (2005) 39:4 Journal of Raptor Research 429.

⁴ Harry N. Coulombe, “Behaviour and Population Ecology of the Burrowing Owl, *Speotyto Cunicularia*, in the Imperial Valley of California” (1971) 73:2 The Condor 162.

⁵ Paul C. James, Glen A. Fox & Thomas J. Ethier, “Is the Operational Use of Strychnine to Control Ground Squirrels Detrimental to Burrowing Owls?” (1990) 24:4 Journal of Raptor Research 120.

⁶ *Supra* note 2

⁷ For the ease of the reader: “burrowing owls nesting in agricultural fields may adopt a specialized diet centred on an abundance of poisoned ground squirrels and considering this information indicates that the burrowing owl may also feed on dead animals strychnine-killed ground squirrels may have an impact on the health of owls”

⁸ Elizabeth A. Haug & Lynn W. Oliphant, “Movements, activity patterns, and habitat use of Burrowing Owls in Saskatchewan” (1990) 54:1 The Journal of Wildlife Management 27.

⁹ Kort M. Clayton & Josef K. Schmutz “In the decline of Burrowing Owls *Speotyto Cunicularia* in prairie Canada linked to changes in Great Plains ecosystems?” (1999) 9:2 Bird Conservation International 163.

Reviewing Coulombe, 1971, it is accurate that at page 163 the author wrote about burrowing owls in California's Imperial Valley, "On one occasion the remains of a ground squirrel were discovered in the midden at the entrance of a Burrowing Owl burrow, which probably represented carrion rather than prey."¹⁰ Having thoroughly reviewed Coulombe's work, this is the only sentence written therein that could lead a reader to a conclusion that burrowing owls feed on dead ground squirrels. A more significant study by York, et al. "Diet and Food-Niche Breadth of Burrowing Owls (*Athene Cunicularia*) in the Imperial Valley, California" (2002) 62:3 Western North American Naturalist 280, found that in the Imperial Valley rodents were infrequent in the diet of *Athene Cunicularia*, having been found in only 2 out of 53 stomachs of burrowing owls. From this it is reasonable to conclude that on one occasion in the Imperial Valley, Coulombe observed the remains of a ground squirrel near the entrance of a burrow. However, having examined 58 specimens of burrowing owls in the Imperial Valley, York et al. found rodents (including ground squirrels) were infrequent in that species' diet. The conclusion that Coulombe, 1971 validates the concern that there is a risk posed by strychnine to species at risk is objectionable.

In the abstract of James et al., 1990, the authors write, "We conclude that the use of strychnine-coated grain, applied to control ground squirrels as indicated by the manufacturer, is not detrimental to breeding Burrowing Owls in the short term. Other potential sublethal effects, however, were not investigated." To say that this study concludes that strychnine-killed ground squirrels may have an impact on the health is simply incorrect. The conclusion that James et al., 1990 validates the concern that there is a risk posed by strychnine to species at risk is objectionable.

In summary, in its examination of Proulx, 2010, PRVD2018-13 sets up a narrative of a threat to burrowing owls by noting Proulx, 2010 found that baiting lead to ground squirrels being found dead on the surface and ground squirrel remains were found in 33% of burrowing owl regurgitation pellets in May of 2008.¹¹ This sentence is presented in a way that allows the reader to conclude that there should be an eventual causation between these two events, when in fact that is not logical. PRVD2018-13 continues by considering three studies cited by Proulx, 2010. PMRA submits that these studies show that burrowing owls nesting in agricultural fields may adopt a specialized diet centred on an abundance of poisoned ground squirrels, and considering this information indicates that the burrowing owl may also feed on dead animals, strychnine-killed ground squirrels may have an impact on the health of owls. CCGA's examination of these three studies does not support this determination. Our assessment of these studies leads us to the conclusion that burrowing owls avoid agricultural fields, they do not consume ground squirrels, their diet does not largely consist of rodents (alive or dead ground squirrels), and strychnine-coated grain, applied to control ground squirrels as indicated by the manufacturer, is not detrimental to the health of burrowing owls.

Having examined the articles upon which the decision to de-register strychnine are based, CCGA respectfully submits that the scientific basis for our objection is valid.

Value of the Pest Control Product

Richardson's Ground Squirrels (RGS) are a serious pest in Western Canada where high populations continue to persist and negatively impact large numbers of millions of acres of agricultural lands, including cropland. Left

¹⁰ *Supra* note 4 at page 163

¹¹ *Supra* note 2

unchecked, RGS populations expand rapidly and destroy large swaths of crops by eating the emerging plant and leaving behind holes that cause significant damage to equipment. When large areas of crops are destroyed, it allows weeds to move into the area that must also be controlled. Application of herbicides are further hampered by the large holes produced by RGS, resulting in wheel and frame damage to agricultural equipment. The negative impact of this species is compounding.

Until effective alternatives are available, liquid strychnine remains the best option available for controlling RGS and preventing substantial damage to both crops and cropland as well as native grasslands in Canada. Losing access to liquid strychnine will cause substantial economic hardship in rural communities across Western Canada, estimated in the hundreds of millions of dollars, in addition to the significant long-term environmental damage to native grasslands and cropland.

Presently, access to liquid strychnine is highly controlled, and not available to the public. Landowners must be trained and considered eligible to purchase and use liquid strychnine, and subject to federal, provincial and municipal inspections. These limitations on the use of liquid strychnine ensure there is significant oversight on its use and CCGA supports the continuation of these controls.

Agriculture's Competitiveness

Canadian canola growers are, and must remain, competitive given that we export over 90% of our canola production as seed, oil or meal. As such, growers need access to innovative and effective tools to manage weed, insect, and disease problems that can threaten crops. For over a decade, the PMRA included "enabling access and competitiveness" language in its strategic plans. It would be encouraging to see a return to this intent, and have the PMRA consider Canadian agriculture's competitiveness when making regulatory decisions.

Given the unfounded manner in which Proulx, 2010 presents various studies, PMRA's incorrect conclusions drawn from that document, and the value strychnine provides to the Canadian canola industry, our organization submits that the advice of expert scientists would assist in addressing the subject matter of the objection. We therefore respectfully object to the decision outlined in RVD2020-06, and request a panel be struck to review this decision.

Thank you for consideration of this objection. Canola growers and the canola industry are committed to the highest standard of human health and environmental safety. We believe strongly that the PMRA needs access to the best available science, and consider the impact on a sector's competitiveness when making decisions on the future use of pest control products.

Sincerely,

original signed by

Bernie McClean

Chair, Canadian Canola Growers Association