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EVALUATION OF PRODUCER ATTITUDES REGARDING ON-FARM EUTHANASIA METHODS FOR COMMERCIAL MEAT RABBITS

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ABSTRACT

A questionnaire was developed to determine the current methods of euthanasia used on Ontario commercial meat rabbit farms, to assess producer attitudes towards these methods, and to determine if there was a desire for alternative methods to be validated. In Canada, there is a lack of industry-specific information for rabbit producers and their veterinarians to use when making decisions about early identification of cull animals and acceptable methods for on-farm euthanasia. This questionnaire was the first stage of research to improve commercial meat rabbit on-farm euthanasia protocols. The survey was distributed across Ontario, the largest rabbit meat production province in Canada. It consisted of 34 questions with the first half of the survey addressing issues such as methods used for culling adult and growing rabbits, reasons for culling, satisfaction with techniques, estimated personal skill level, training, desire for new methods, and money willing to invest in a new euthanasia device. The second half of the survey introduced two novel techniques; the non-penetrating captive bolt and carbon monoxide (intended more for depopulation rather than routine euthanasia). Responses to questions were highly variable and it was clear that inappropriate methods were often used for culling, that culling was considered a highly unpleasant task that many individuals were uncertain whether they were performing correctly, and few consistent measures were used to ensure death. The results of this survey indicate that producers are concerned about their current methods for on-farm euthanasia of commercial meat rabbits and they would like more options.

Key words: Euthanasia, Depopulation, Rabbit producers, Animal welfare, Training and education.

INTRODUCTION

The development and validation of efficient, humane, and safe methods for on-farm euthanasia of all livestock species, including commercial meat rabbits, is a high priority for governments and is important for meeting Canada's international animal welfare commitments to the OIE. There are no readily available reference guidelines or training tools for commercial rabbit producers or their veterinarians in Canada that cover decision-making for early identification of cull animals and acceptable methods of on-farm euthanasia. The lack of information has resulted in inconsistent on-farm decision-making regarding animal culling, neglect of animals requiring euthanasia, and inappropriate techniques being used for euthanizing rabbits.

A questionnaire was developed for commercial rabbit producers responsible for the task of euthanasia. The primary objectives for this questionnaire were to determine the current methods of euthanasia used on farms, to assess producer attitudes towards these methods, and to evaluate whether there was a desire for alternative methods to be validated.

MATERIALS AND METHODS

Human Ethics Approval

This study was reviewed for approval by the University of Guelph Research Ethics Board (15MR006). Participants were informed that participation was voluntary, responses were anonymous, and that skipping a question was permissible. A low value incentive card was offered to encourage participation.

Study Population

The questionnaire was distributed at a spring meeting for Ontario commercial rabbit producers. Ontario represents approximately 51% of the Canadian commercial meat rabbit industry with approximately 100 commercial farms in operation (AAFC, 2013). The surveyed population, at 26 completed returned questionnaires, represents 26% of the provincial industry.

Questionnaire

The questionnaire consisted of 34 questions, made up of fixed-response and open-ended written responses and required approximately 20 minutes to complete. Part one of the survey asked about current on-farm euthanasia methods. Part two introduced two methods of on-farm euthanasia used in other livestock species.

Statistical Analysis

Questionnaires returned were individually examined and responses tallied. Open-ended questions were reviewed, tallied, and mean (\pm SD) response rate calculated.

RESULTS AND DISCUSSION

Current Methods

The primary method reported as being used by Ontario rabbit producers for on-farm euthanasia was blunt force trauma (54%). Tied for the second most common method at 23% was manual cervical dislocation and device- (such as a wooden stick) assisted cervical dislocation. Due to their high relative muscle to bone mass ratio, cervical dislocation is considered inappropriate for use on rabbits weighing more than one kilogram (AVMA, 2013), because of the risk of fracturing the back prior to cervical dislocation. The survey did not ask producers about methods used for different weights of rabbits.

Reasons listed for conducting on-farm euthanasia included use for animals that were sick (88%), injured (58%), and for personal consumption (44%). One producer responded that manual cervical dislocation had been used for depopulation procedures in the past. Physical methods, such as blunt force trauma and cervical dislocation, are not appropriate for use to eradicate large numbers of animals due to loss of accuracy decreasing method effectiveness as a result of fatigue (AVMA, 2013). Alternative methods need to be validated and available in the event of an animal emergency requiring depopulation.

When questioned about concerns producers had with their main method of euthanasia, 50% responded that they do not like doing it (Figure 1). This could explain why for 42% of producers there was not a euthanasia protocol in place across all age groups of rabbits and they admitted to letting these animals die on their own. Other concerns included not knowing if they were performing their method correctly or if the animal was dead after application. Both of these concerns can be linked to lack of specific education and training. 88% of respondents indicated that they had never received hands-on euthanasia training. When producers were asked what euthanasia training materials they would recommend to a new producer entering the industry, 54% were unable to respond. This lack of knowledge and training supports the need for reference materials to be developed and readily available.

Although 42% of respondents had concerns about their current method of euthanasia, they ranked their methods and themselves (level of skill) high for satisfaction. Skill and satisfaction levels were slightly lower for methods used on older rabbits versus pre-weaned kits. It is rather surprising that despite the large amount of concern for current methods, producers still felt very skilled and satisfied. However this level of skill and satisfaction did not alter their desire for new euthanasia methods to be validated and available for use (42% indicated that there was a need for new euthanasia methods, with only 4% answering no and the rest falling into the categories of maybe and not sure).

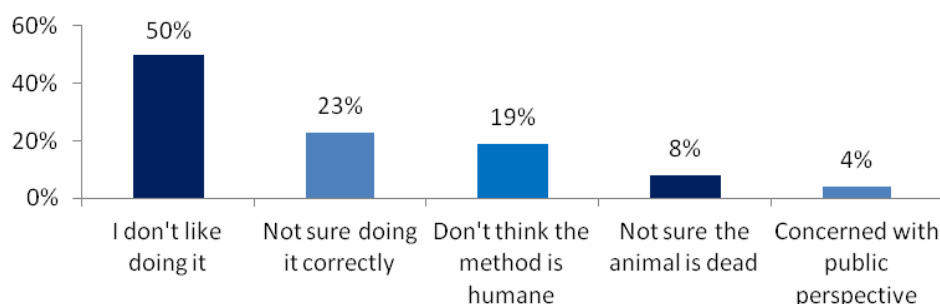


Figure 1: Rabbit producer responses to the question, “Do you have concerns with your current primary method of on-farm euthanasia?” (n=26)

Novel Euthanasia/Depopulation Methods

Two methods were introduced to producers in the questionnaire; a non-penetrating captive bolt and carbon monoxide (CO). Both methods were novel to producers with no one indicating they had used either of them for killing rabbits previously. 27% had witnessed the non-penetrating captive bolt being used for stunning at an abattoir and 8% had seen CO used for euthanasia of farmed mink prior to pelting. Many producers had safety concerns about CO with few producers thinking it would work on their farm. However when asked to indicate what they thought the best method of euthanasia was unrestricted by the ones listed in the survey, a majority (35%) indicated CO. CO is used routinely for euthanizing mink in mink sheds, which are partially open on the sides/ends and have good ventilation. If safety could be assured, CO might be a humane option for on-farm depopulation of meat rabbits in the event of a regional/national food animal emergency.

Concerns raised for the non-penetrating captive bolt included: cost, requirement for an air compressor to operate, inability to use the device on small growers, the possibility that rabbits might only be stunned and not killed, training, weight of the device, and ease of operation. Cost was the biggest concern for this device. When producers were asked how much they would be willing to spend on a new method, 50% indicated <\$100. The non-penetrating captive bolt is significantly more than this and the method also requires an air compressor. Research is needed to investigate the concerns around this device and to validate it as a euthanasia method for rabbits.

CONCLUSIONS

The high variability in this questionnaire indicates that training is needed to educate producers on correct euthanasia procedures. Development of training tools would assist producers in decision-making for euthanasia, improve animal well-being by ensuring that sick and injured animals are killed on-farm humanely and in a timely fashion, and ensure that producers can accurately recognize insensibility and animal death before leaving the rabbit.

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