

Dairy cattle on-farm euthanasia: A survey of Canadian veterinarians' practices

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Introduction

Few data are currently available on euthanasia procedures carried out on Canadian dairy farms by veterinarians. The objective was to investigate euthanasia methods used and recommended by Canadian veterinarians.

Materials and Methods

A bilingual online-based survey on euthanasia practices was conducted among Canadian dairy veterinarians between July 29 and September 16, 2019. Descriptive statistics were generated. Multivariable logistic regression models were built using a backward elimination approach in order to examine the association between respondents' demographic characteristics and dependent variables (euthanasia method of choice and ability to advise producers to use captive bolt or firearms). P-values <0.05 were considered significant.

Results

Responses of 261 veterinarians offering regular dairy services were included. Fifty-nine percent of respondents were men, and 41% women. Respondents were distributed across all provinces; mainly in Quebec (49%) and Ontario (24%). The primary method most often used by respondents

to euthanize adult dairy cows was pentobarbital overdose (51%) or captive bolt (32%). Respondents from Quebec were less likely to use captive bolt or firearms than respondents from Ontario, British Columbia, and the Maritimes provinces ($P < 0.01$). Among veterinarians using a primary euthanasia method requiring an adjunct kill step, intravenous potassium chloride (46%), pithing (22%) or exsanguination (15%) were most commonly used. Only 70% and 53% of respondents reported being able to advise a producer to use captive bolt and firearms, respectively. Women and respondents from Quebec were less likely to report being able to advise producers to use captive bolt or firearms than men ($P = 0.02$) and respondents from other regions ($P \leq 0.02$).

Significance

Respondents appeared more experienced with captive bolt than firearms, but many felt uncomfortable advising their clients to use these methods. This information could guide the development of future continuing education on dairy cattle euthanasia.