



## The title for the survey is presented in a large, bold, black sans-serif font. On the left is a red maple leaf icon. The text 'Canadian Cow-Calf Survey' is in black, and '2022-23' is in red. The year '2022-23' is positioned to the right of 'Survey'.

### Aggregate Results

September 2024

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## Introduction

The Beef Cattle Research Council (BCRC), Canfax Research Services and regional representatives collaborated to generate the following national statistics through the inaugural *2023 Canadian Cow-Calf Survey (CCCS)*.

Historical production surveys include the *Alberta Cow-Calf Audit (1986-88, 1997-98)* and *Reproductive Efficiency and Calf Survival in Ontario Beef Cow-calf Herds (1983)*. Between 2013 and 2017 *Cow-calf Production Surveys* were conducted in Western Canada, Ontario, Quebec and Atlantic Canada. These surveys provided a benchmark of production performance and management practices on beef cow-calf operations in each region and informed the [2019 Adoption Rate Report](#). The 2023 CCCS amalgamated and replaced the regional and provincial surveys. The results from the 2023 CCCS will be used to inform updates to the Adoption Rate Report to be released in Spring 2025.

The 2023 CCCS collected data from the 2022 breeding season through to the 2023 weaned calf crop. This survey also captured reasoning and rationale for some practices.

The online questionnaire, available in English and French, was open from November 21, 2023 to March 31, 2024. A total of 600 surveys were completed, representing 95,100 breeding females, which is approximately 3% of the January 2024 Canadian beef cow herd as reported by Statistics Canada.

Result Highlights		2023
Recommended Management Practices		% of Respondents
Females Pregnancy Checked		64% Cows / 68% Heifers
% Calved in First 21 Days		58% Cows / 64% Heifers
Vaccinated Females Pre-Calving		68%
Low-Stress Weaning Used (i.e. not traditional separation)		49%
Pain Control Used while Dehorning (always or depending on age/method)		70%
Pain Control Used while Castrating (always or depending on age/method)		47%
Lab Tested Feed (annually or occasionally)		69%
Primary Water Source Quality Tested Within Past Three Years		38%
Body Condition Scoring Used Regularly		14% hands-on 74% visually
Breeding Soundness Evaluations on Bulls		60%
Calves Implanted		25%
Performance Measures		
Open Rate		7.4% Cows / 11% Heifers
Calf Death Loss from Birth to Weaning		4.6% Cows / 6.4% Heifers
Breeding Season Length (recommended < 63 days)		96 d Cows / 90 d Heifers

# SECTION 1. ABOUT CCCS RESPONDENTS & THEIR OPERATIONS

A total of 600 survey responses were received representing 95,100 breeding females. This accounts for approximately 3% of the January 2024 Canadian beef cow herd in Canada as reported by Statistics Canada.

## 1.1 Provincial Distribution

Just over one third of respondents were from Alberta (35.2%) accounting for 42.5% of total beef cows reported. Saskatchewan followed with 21.5% of respondents and 29.7% of beef cows. Ontario accounted for 15.2% of respondents and 5.6% of beef cows. Manitoba accounted for 9.5% of respondents and 9.5% of beef cows. British Columbia accounted for 9% of respondents and 7.9% of beef cows, the Maritimes accounted for 6% of respondents and 2.2% of beef cows. Quebec had 3.7% of respondents and 2.4% of beef cows.

The provincial distribution of respondents and beef cows aligns closely with the national statistics reported by the Census of Agriculture 2021 (See Figure 1-4).

Quebec and Maritimes are grouped together for a larger sample size; this will be labelled as “QC&M” in the following tables.

*Table 1. Provincial distribution of respondents*

What province are you from?	Percent of respondents	Number of respondents*	Percent of beef cows	Number of beef cows reported
<b>British Columbia</b>	9.0%	54	7.9%	6,291
<b>Alberta</b>	35.2%	211	42.5%	33,733
<b>Saskatchewan</b>	21.5%	129	29.7%	23,571
<b>Manitoba</b>	9.5%	57	9.5%	7,555
<b>Ontario</b>	15.2%	91	5.6%	4,477
<b>Quebec</b>	3.7%	22	2.4%	1,934
<b>Maritimes</b>	6.0%	36	2.2%	1,722
<b>TOTAL</b>	<b>100%**</b>	<b>600</b>	<b>100%</b>	<b>79,283</b>

\*Include all respondents, not exclusively cow-calf operators.

\*\*Provincial numbers may not add up to 100% due to rounding.

Table 2. Number of cow-calf operations reporting beef cows and number of beef cows, Census of Agriculture 2021

	Percent of operations	Number of cow-calf operations reporting beef cows	Percent of beef cows	Number of beef cows
British Columbia	6.0%	3,014	5.3%	183,802
Alberta	34.7%	17,487	42.8%	1,476,623
Saskatchewan	24.3%	12,271	30.4%	1,049,377
Manitoba	10.7%	5,416	11.6%	401,600
Ontario	16.1%	8,094	5.5%	190,611
Quebec	5.8%	2,903	3.4%	117,496
Maritimes	2.5%	1,240	0.8%	29,109
<b>TOTAL</b>	<b>100%</b>	<b>50,425</b>	<b>100%</b>	<b>3,448,618</b>

Source: 2021, Census of Agriculture, Statistics Canada

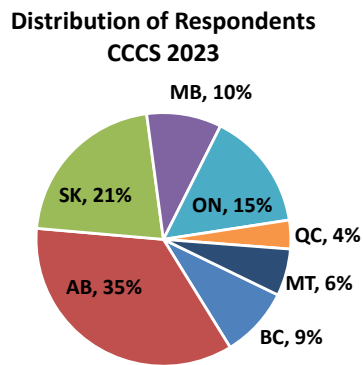


Figure 1. Distribution of respondents, CCCS 2023

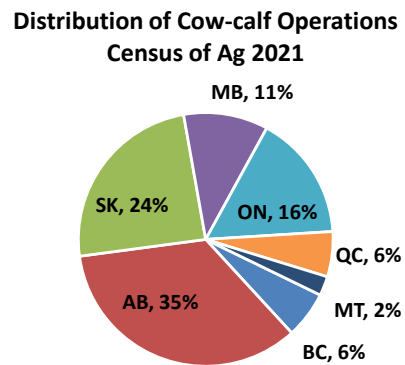


Figure 2. Distribution of cow-calf operations reporting beef cows, Census of Agriculture 2021

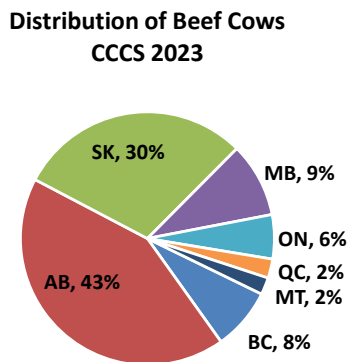


Figure 3. Distribution of beef cows reported, CCCS 2023

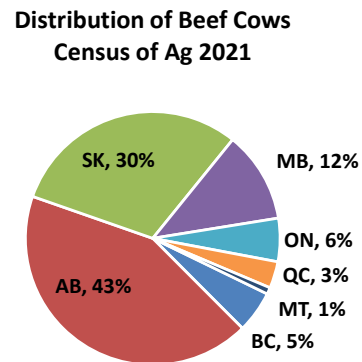


Figure 4. Distribution of beef cows reported by cow-calf operations, Census of Agriculture 2021

## 1.2 Operational Information

Among all respondents, 98.7% reported operating a cow-calf enterprise, 37.5% were involved in breeding stock replacement, 23.8% in backgrounding, 13.8% in grasser or stocker operations, and 11.5% in finishing or feedlots. Respondents not engaged in cow-calf operation are excluded from data presented in the rest of the report, as they were filtered out of the survey.

*Table 3. Beef enterprises on operation, by province*

What beef enterprises are on your operation? Select all that apply	Percent of respondents*						
	CAN (n=600)	BC (n=54)	AB (n=211)	SK (n=129)	MB (n=57)	ON (n=91)	QC&M (n=58)
Cow-calf	98.7%	100%	98.1%	100.0%	98.2%	96.7%	100%
Breeding stock replacement	37.5%	35.2%	37.0%	41.9%	31.6%	37.4%	37.9%
Backgrounder	23.8%	16.7%	23.2%	31.0%	26.3%	24.2%	6.9%
Grasser/Stocker	13.8%	13.8%	12.8%	15.5%	15.8%	9.9%	17.2%
Finisher/Feedlot	11.5%	11.5%	10.0%	6.2%	3.5%	18.7%	17.2%

\* Percentages add up to greater than 100% as respondents can select all that apply.

The majority of survey respondents were commercial cow-calf producers with 73% reporting the majority (>75%) of their herd was commercial. About 10% of respondents reported that the majority (>75%) of their herd was purebred.

On average nationally, about 81% of surveyed herds were commercial and 20% were purebred. According to the Canadian Beef Breeds Council there are approximately 10,000 breeders of registered beef cattle of all breeds in Canada. This accounts for one in every five operations reporting beef cows.

*Table 4. Percentage of commercial or purebred herds, by province*

What percentage of your herd is	Mean percent of herd*						
	CAN	BC	AB	SK	MB	ON	QC/M
Commercial	80.6%	86.0%	82.5%	88.7%	86.9%	66.8%	65.8%
Purebred	19.6%	14.3%	17.5%	11.3%	13.1%	33.9%	34.2%

\*Commercial and Purebred numbers may not add up to 100% due to rounding.

Nationally, 35.4% of respondents have fewer than 50 beef cows. Herd sizes of 51-100 and 101-200 cows were reported by 22.6% and 22.4% of respondents, respectively. Herds in the range of 201-300 and 301-500 cows are less common, representing 9.9% and 6.3% of respondents, respectively. The largest herds, with more than 500 cows, were reported by 3.4% of respondents.

Table 6 provides the beef cow herd size as reported in the 2021 Census of Agriculture. Due to differences in categories these are not directly comparable. However, in general it can be observed that the cow-calf survey had fewer small operations (less than 47/50 head) with responses skewed to larger operations

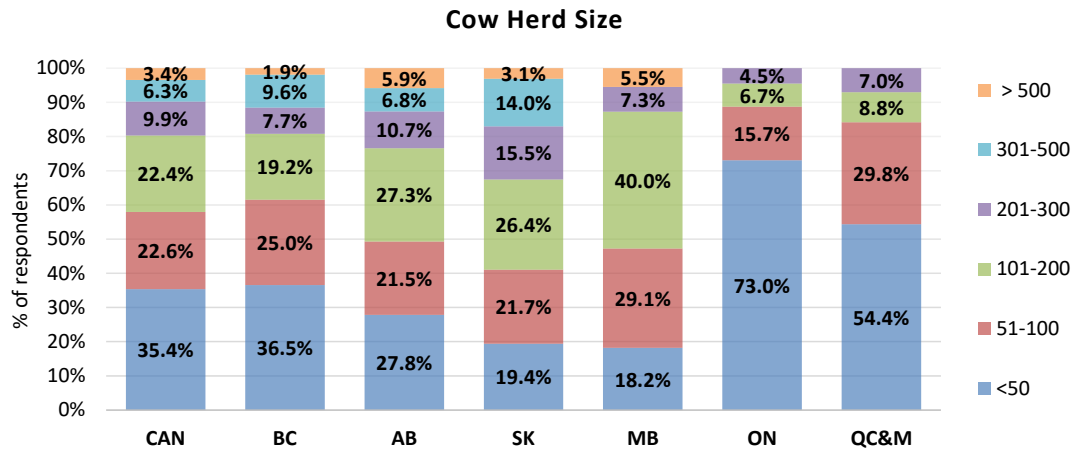


Figure 5. Percentage of respondents by cow herd size

Table 5. Percentage of respondents by cow herd size

Number of beef cows exposed for breeding	Percent of respondents						
	CAN (n= 585)	BC (n= 52)	AB (n= 205)	SK (n=129)	MB (n=55)	ON (n=89)	QC/M (n=57)
<50	35.4%	36.5%	27.8%	19.4%	18.2%	73.0%	54.4%
51-100	22.6%	25.0%	21.5%	21.7%	29.1%	15.7%	29.8%
101-200	22.4%	19.2%	27.3%	26.4%	40.0%	6.7%	8.8%
201-300	9.9%	7.7%	10.7%	15.5%	7.3%	4.5%	7.0%
301-500	6.3%	9.6%	6.8%	14.0%	0.0%	0.0%	0.0%
> 500	3.4%	1.9%	5.9%	3.1%	5.5%	0.0%	0.0%

Table 6. Beef cow herd size in the 2021 Census of Agriculture

Beef cow herd size	Percent of farms reporting						
	CAN (n= 53,597)	BC (n= 3,260)	AB (n= 18,405)	SK (n=12,681)	MB (n=5,652)	ON (n=9,101)	QC/M (n=4,498)
<47	61.2%	71.4%	51.8%	50.1%	52.3%	88.9%	78.5%
48-122	23.1%	16.1%	27.4%	27.9%	30.0%	9.4%	16.9%
123-249	10.5%	8.1%	13.5%	14.5%	13.0%	1.4%	3.7%
250-499	4.1%	3.6%	5.5%	6.2%	4.0%	0.2%	0.8%
>500	1.1%	0.8%	1.7%	1.4%	0.7%	0.0%	0.1%

## SECTION 2. IMPORTANT DATES AND COUNTS RELATED TO THE 2022 BREEDING SEASON

Survey respondents were asked to provide dates and head counts separately for cows and heifers related to their 2022 breeding season.

### 2.1 Cow to Bull Ratio

Nationally, the average cow:bull ratio was 20:1, with regional variations from 18:1 in British Columbia to 24:1 in Quebec and the Maritimes. The average heifer:bull ratio was 14:1, ranging from 10:1 in Ontario to 18:1 in Manitoba. When considering both cows and heifers, the female:bull ratio averages 19:1, with a range from 16:1 in British Columbia to 23:1 in Quebec and the Maritimes.

*Table 7. Cow:Bull ratio for 2022 breeding season, by province*

Average number of females* per bull							
	CAN	BC	AB	SK	MB	ON	QC&M
Cows	20	18	20	21	23	19	24
Heifers	14	11	15	16	18	10	11
Overall (all females combined)	19	16	18	20	21	17	23

\*All females exposed, including those exposed to natural service only, bred using artificial insemination and embryo transfer.

### 2.2 Breeding Season Length

On average, the breeding season length was 96 days for cows and 90 days for heifers.

*Table 8. Length of breeding season in days, by province*

Mean length of breeding season (days)							
	CAN	BC	AB	SK	MB	ON	QC&M
Cows	96	95	80	87	104	114	131
Heifers	90	90	78	87	93	111	108

Research recommends exposing cows to breeding for 63 days or less and for heifers to be bred at least 14 days earlier than cows given their longer postpartum interval (80-100 days for heifers versus 50-60 days for cows).

About one-third (32.3%) of respondents have a 63-day breeding season for cows. This percentage was slightly higher for heifers at 38.4%.

### 63-Day or Less Breeding Season

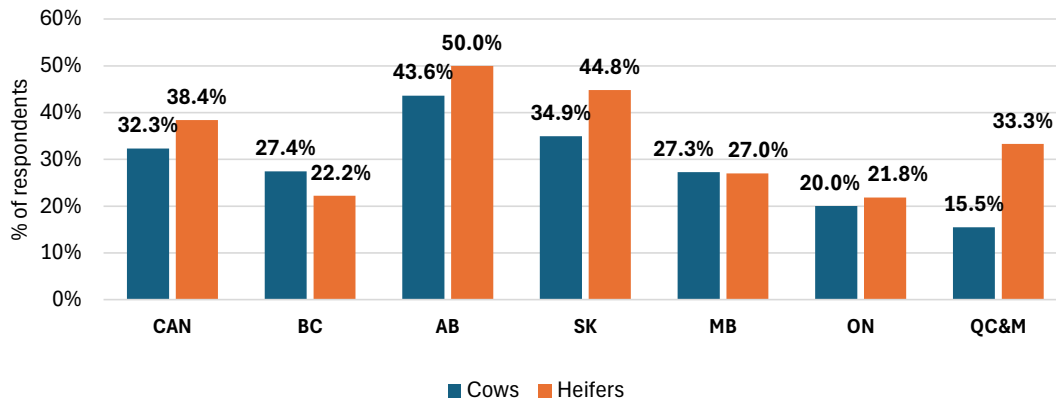


Figure 6. Percentage of respondents following 63-day or less breeding season, by province

Table 9. Percent of producers following 63-day or less breeding season, by province

63-day or less breeding season	Percent of respondents						
	Cows						
	CAN (n=581)	BC (n=51)	AB (n=204)	SK (n=123)	MB (n=55)	ON (n=90)	QC&M (n=58)
Yes	32.3%	27.4%	43.6%	34.9%	27.3%	20.0%	15.5%
No	67.7%	72.6%	56.4%	65.1%	72.7%	80.0%	84.5%
	Heifers						
	(n=531)	(n=45)	(n=186)	(n=116)	(n=52)	(n=78)	(n=54)
Yes	38.4%	22.2%	50.0%	44.8%	27.0%	21.8%	33.3%
No	61.6%	77.8%	50.0%	55.2%	73.1%	78.2%	66.7%

About one quarter of respondents exposed heifers earlier than cows. Within these producers, 35.9% bred heifers 1-7 days before cows, 24.6% bred eight to 14 days before, 21.1% bred 15-21 days before, and 18.3% bred heifers more than 21 days before.

Table 10. Exposure timeline for cows and heifers (breeding start dates) by province

Exposure timeline	Percent of respondents						
	CAN (n=536)	BC (n=47)	AB (n=189)	SK (n=118)	MB (n=52)	ON (n=77)	QC&M (n=53)
Cows before heifers	11.3%	4.3%	10.6%	6.1%	9.5%	19.4%	24.5%
Heifers before cows	26.5%	31.8%	27.0%	32.0%	13.5%	24.7%	20.8%
Exposed same day	62.4%	63.9%	62.4%	61.9%	77.0%	55.9%	54.7%
Among producers who expose heifers before cows	Sub-sample percentage						
	(n=142)	(n=15)	(n=51)	(n=39)	(n=7)	(n=19)	(n=11)
Bred 1-7 days before	35.9%	13.3%	31.4%	55.3%	28.6%	42.1%	18.1%
Bred 8-14 days before	24.6%	26.7%	33.3%	13.2%	28.6%	21.1%	27.3%
Bred 15-21 days before	21.1%	53.3%	19.6%	13.2%	28.6%	10.5%	27.3%
Bred > 21 days before	18.3%	6.7%	15.7%	18.3%	14.3%	26.3%	27.3%

## 2.3 Breeding Technologies

Nationally, 28.5% of respondents reported using artificial insemination (AI), and 5.8% reported using embryo transfer (ET) for breeding in the 2022 season.

*Table 11. AI or ET for breeding in the 2022 season, by province*

Number of females exposed to AI or ET the 2022 breeding season	Percent of respondents						
	CAN (n=600)	BC (n=54)	AB (n=211)	SK (n=129)	MB (n=57)	ON (n=91)	QC&M (n=58)
Percentage of producers/operators used AI	28.5%	16.7%	23.2%	17.8%	28.1%	48.4%	51.7%
Percentage of producers/operators used ET	5.8%	3.7%	6.6%	6.2%	1.8%	7.7%	5.2%

## 2.4 Breeding Performance

$$\text{Open rate} = \frac{\# \text{ of open females}}{\# \text{ of females exposed}}$$

Nationally, the average cow open rate was 7.4%, while the heifer open rate was 11% in the 2022 breeding season.<sup>1</sup>

*Table 12. Open rate for cows and heifers, by province*

Open rate	Percent open						
	CAN (n=569)	BC (n=51)	AB (n=202)	SK (n=125)	MB (n=48)	ON (n=86)	QC&M (n=57)
<b>Cows</b>	7.4%	7.1%	7.8%	7.0%	10.1%	6.9%	4.1%
<b>Heifers</b>	11.0%	11.0%	11.0%	11.2%	13.2%	8.6%	8.1%

$$\text{Abortion rate} = \frac{\# \text{ of females aborted}}{\# \text{ of bred females}}$$

Nationally, the average abortion rate was 1% for cows and 1.5% for heifers.<sup>2</sup> It should be noted that the abortion rate may be underestimated, as producers who do not pregnancy check may count the aborted females as open.

<sup>1</sup> The open rates presented in this report are calculated by dividing regional average number of open females by the regional average number of females exposed.

<sup>2</sup> The abortion rates presented in this report are calculated by dividing the regional average number of females aborted by the regional average number of bred females.



Table 13. Abortion rate, by province

Abortion rate		Percent aborted					
<b>Cows</b>	CAN (n=571)	BC (n=52)	AB (n=202)	SK (n=126)	MB (n=49)	ON (n=86)	QC&M (n=56)
	1.0%	0.9%	1.1%	1.0%	0.7%	0.8%	1.3%
<b>Heifers</b>	(n=505)	(n=50)	(n=177)	(n=114)	(n=40)	(n=75)	(n=49)
	1.5%	1.1%	1.6%	1.2%	1.5%	2.1%	1.4%

$$\text{Calving rate} = \frac{\# \text{ of females calved}}{\# \text{ of females exposed}}$$

Nationally, the average calving rate was 89.7% for cows and 85.7% for heifers.<sup>3</sup>

Table 14. Calving Rate, by province

Calving rate		Percent calved					
<b>Cows</b>	CAN (n=497)	BC (n=47)	AB (n=171)	SK (n=103)	MB (n=47)	ON (n=81)	QC&M (n=48)
	89.7%	89.1%	88.7%	91.2%	89.9%	89.0%	91.2%
<b>Heifers</b>	(n=444)	(n=42)	(n=157)	(n=102)	(n=34)	(n=63)	(n=46)
	85.7%	84.9%	86.4%	85.5%	86.4%	80.6%	84.9%

<sup>3</sup> The calving rates presented in this report are calculated by dividing the regional average number of females calved by the regional average number of females exposed.

# SECTION 3. 2023 CALF CROP

## 3.1. Calving Season

Respondents were asked to provide information on their 2023 calving season.

Average calving span (length of calving season in days) was 89 days for cows and 59 days for heifers. Recommended calving span is 60 to 80 days for efficient use of labour, a more uniform calf crop, and improved productive and reproductive efficiency.

Table 15. Length of 2023 calving season in days from date of first full-term calf born to last calf born, by province

Length of calving season		Mean days					
	CAN	BC	AB	SK	MB	ON	QC&M
<b>Cows</b>	89	88	78	82	100	99	118
<b>Heifers</b>	59	58	53	58	70	59	74

Calving distribution is an indicator of reproductive performance. A common recommendation is to have at least 60% of females calving in the first 21 days of the calving period, 20-25% in the second 21 days and the remaining in the third 21 days.

Across Canada, 58% of cows and 63.8% of heifers calved within the first 21 days, while 4.8% of cows and 4% of heifers calved after 63 days.

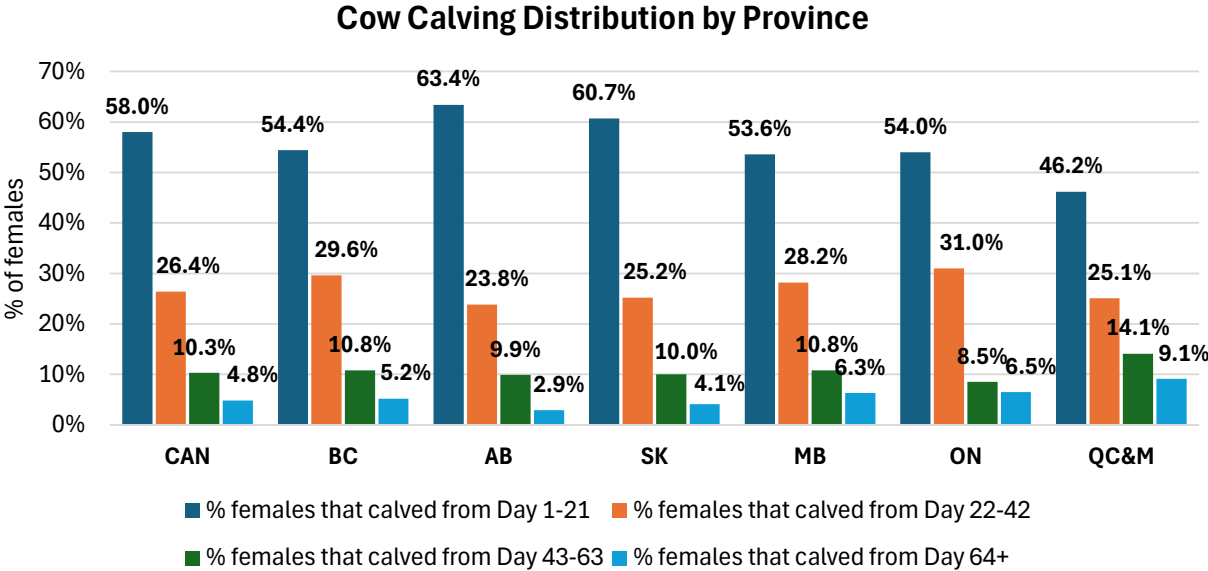


Figure 7. Percent distribution of cows calving based on days in 2023, by province

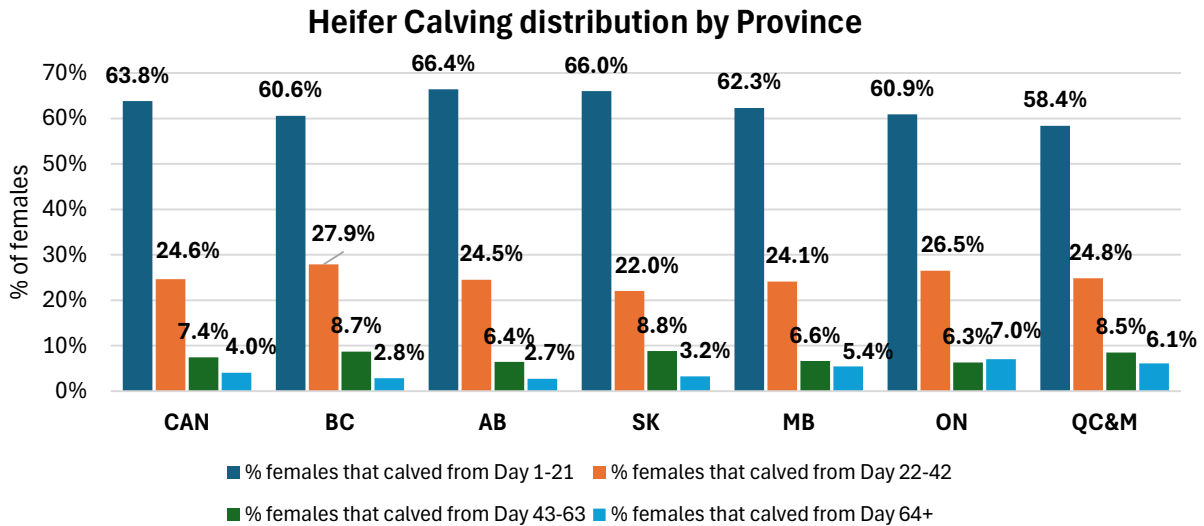


Figure 8. Percent distribution of heifers calving based on days in 2023 by province

## 3.2 Calf Death Loss

$$\text{Calf Death Loss within First 24 Hrs} = \frac{\# \text{ calves born dead or died within first 24 hours}}{\# \text{ of females that calved} + \# \text{ of sets of twins}}$$

Nationally, calf death loss within the first 24 hours averaged 2.2% for cows and 3.7% for heifers in the 2023 calving season.<sup>4</sup>

Table 16. Calves born dead or died within first 24 hours, by province

Calf Death Loss within 24 Hours	Percent of calves						
	CAN (n=577)	BC (n=54)	AB (n=204)	SK (n=125)	MB (n=50)	ON (n=89)	QC&M (n=55)
<b>Cows</b>	2.2%	2.0%	2.0%	2.4%	2.2%	1.8%	3.1%
<b>Heifers</b>	3.7%	3.0%	3.8%	3.6%	4.1%	4.5%	3.7%

$$\text{Calf Death Loss after 24 Hrs} = \frac{\# \text{ calves died between day 1 and weaning}}{\# \text{ of live birth}}$$

Nationally, death loss after 24 hours averaged 2.5% for calves born to cows and 2.9% for calves born to heifers.<sup>5</sup>

<sup>4</sup> Calf death loss within the first 24 hours presented in this report are calculated by dividing the regional average number of calves born dead or died within first 24 hours by the sum of regional average number of females that calved and the number of set of twins.

<sup>5</sup> Calf death loss after 24 hrs presented in this report are calculated by dividing the regional average number of calves died between day-1 and weaning divided by the regional average number of live births.

Table 17. Calf death loss after 24 hours, by province

Calf death loss after 24 hours		Percent of live calves					
<b>Cows</b>	CAN (n=574)	BC (n=53)	AB (n=203)	SK (n=125)	MB (n=50)	ON (n=89)	QC&M (n=54)
	2.5%	3.3%	2.5%	2.1%	2.6%	2.2%	3.5%
<b>Heifers</b>	(n=511)	(n=48)	(n=186)	(n=115)	(n=41)	(n=74)	(n=47)
	2.9%	3.2%	2.7%	3.0%	2.6%	3.0%	3.7%

$$\text{Calf Death Loss from Birth to Weaning} = \frac{\# \text{ calves born dead or died within 24 h} + \# \text{ calves died after 24 h}}{\# \text{ of female that calved} + \# \text{ of sets of twins}}$$

It should be noted that calf death loss from birth to weaning is not equivalent to the total of calf death loss within the first 24 hours and calf death loss after 24 hours, due to different denominators used in these calculations.

Nationally, calf death loss from birth to weaning was 4.6% for cows and 6.4% for heifers.<sup>6</sup>

Table 18. Calf death loss from birth to weaning, by province

Calf death loss from birth to wean		Percent of calves					
<b>Cows</b>	CAN (n=574)	BC (n=54)	AB (n=202)	SK (n=125)	MB (n=50)	ON (n=89)	QC&M (n=54)
	4.6%	5.2%	4.4%	4.5%	4.7%	4.0%	6.4%
<b>Heifers</b>	(n=512)	(n=48)	(n=185)	(n=116)	(n=42)	(n=75)	(n=46)
	6.4%	6.1%	6.2%	6.5%	6.5%	7.4%	7.0%

### 3.3 Weaning

Average weaning age was estimated at 215 days for calves born to cows, and 212 days from calves born to heifers.

Table 19. Weaning age for calves in 2023, by province

Weaning age	Days*						
<b>Calves from cows</b>	CAN (n=551)	BC (n=49)	AB (n=193)	SK (n=122)	MB (n=50)	ON (n=85)	QC&M (n=52)
	215	210	210	206	229	222	233
<b>Calves from heifers</b>	(n=518)	(n=46)	(n=188)	(n=119)	(n=45)	(n=73)	(n=52)
	212	210	208	204	225	215	233

\*Calculated using estimated average calving date based on calving start date and calving distribution data.

<sup>6</sup> Calf death loss from birth to wean presented in this report are calculated as by dividing the regional average number of calves born dead or died between within 24 hours plus calves died between day-1 and weaning by the sum of regional average number of females that calved and the number of set of twins.

The average weaning weights reported for steers and heifer calves born to cows averaged 601 lbs and 553 lbs respectively, with a combined weaning weight of 577 lbs. The 205-day adjusted weaning weight was 554 lbs.

The average weaning weights reported for steers and heifer calves born to heifers averaged 571 lbs and 531 lbs respectively, with a combined weaning weight of 551 lbs. The 205-day adjusted weaning weight was 537 lbs.

It should be noted that only 42% of respondents reported actual weaning weights, while the remainder are estimated weights. Data on weaning methods can be found in section 6.6.

*Table 20. Weaning weights and 205-day adjusted weaning weights*

Calves from cows (lbs)							
	CAN* (n=487)	BC (n=45)	AB (n=168)	SK (n=114)	MB (n=43)	ON (n=74)	QC&M (n=43)
Average weaning weight of steers	601	590	607	582	600	621	604
Average weaning weight of heifers	553	551	558	533	552	571	556
Average combined weaning weight of all calves sold	577	572	583	558	576	596	580
Adjusted 205-day weaning weight**	554	558	568	550	529	555	532
Calves from heifers (lbs)							
	CAN (n=370)	BC (n=35)	AB (n=137)	SK (n=85)	MB (n=33)	ON (n=45)	QC&M (n=35)
Average weaning weight of steers	571	567	582	542	573	586	581
Average weaning weight of heifers	531	522	540	503	526	549	549
Average combined wean weight of all calves sold	551	545	561	523	550	568	565
Adjusted 205-day weaning weight**	537	534	549	523	513	554	524

\*Sample size is smaller than weaning age information due to missing data.

\*\* Adjusted 205 day weaning weight =  $\frac{(\text{weaning weight} - \text{birth weight})}{\text{weaning age in days}} \times 205 + \text{birth weight}$ , assuming birth weight at 85 lb.

Mature cow weights averaged 1387 lbs. Weaning weight as a percentage of mature cow weight averaged 41.5%, while the 205-day adjusted weaning weight as a percentage of mature cow weight averaged 39.9%.

It should be noted that only 22% of respondents reported actual mature cow weights, while the remainder are estimated weights.

Table 21. Average mature cow weight and weaning weight as a % of mature cow weight, by province

	CAN n=579	BC n=52	AB n=204	SK n=127	MB n=54	ON n=87	QC&M n=55
Mature Cow Weight (lbs)	1387	1365	1384	1359	1373	1432	1428
	n=485	n=45	n=169	n=113	n=43	n=73	n=42
Pounds weaned as percent of mature cow weight*	41.5%	41.6%	42.4%	40.8%	41.1%	41.1%	40.8%
205-day adjusted pounds weaned as percent of mature cow weight*	39.9%	40.9%	41.2%	40.5%	37.9%	38.3%	37.3%

\*Calculated from cow herd only.

## SECTION 4. RETAINED OWNERSHIP

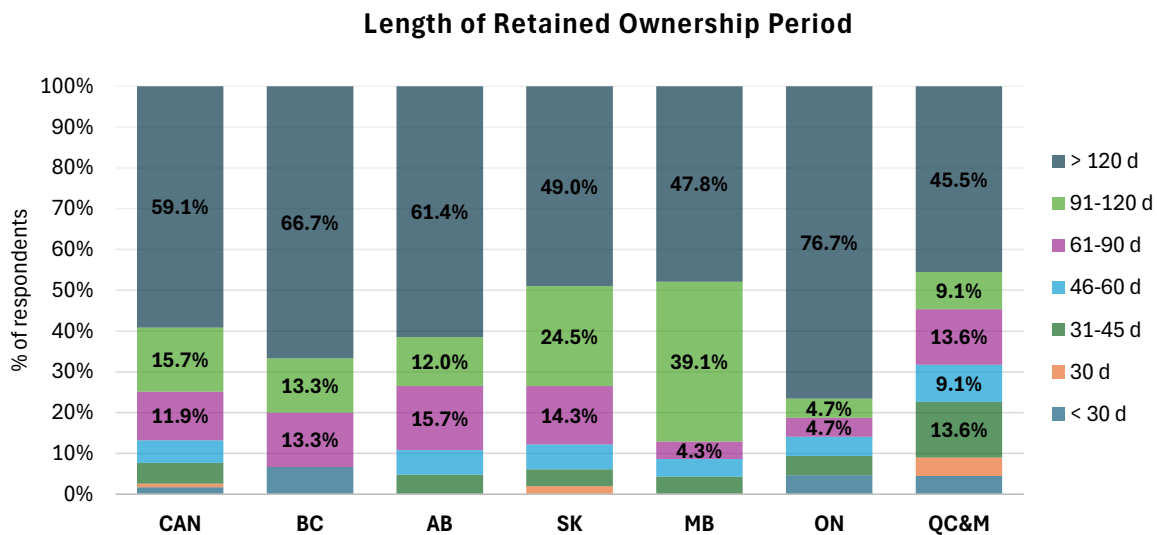
Nationally, over 60% of respondents sold calves at weaning, while 40% indicated that they have retained ownership of most of their calves after weaning in the last three years.

Ontario has the highest percentage of retained ownership at 47.3%, followed by Manitoba at 42.1%. Alberta, Quebec & Maritimes, and Saskatchewan are just under 40%, while British Columbia was the lowest at 27.8%.

*Table 22. Percentage of respondents retaining ownership of most of their calves after weaning, by province*

In the last three years, have you retained ownership of most of your calves after weaning?	Percent of respondents						
	CAN	BC	AB	SK	MB	ON	QC&M
No	60.2%	72.2%	60.2%	61.2%	57.9%	52.7%	60.3%
Yes	39.8%	27.8%	39.8%	38.8%	42.1%	47.3%	39.7%

Among the respondents who retained ownership, close to 60% reported that they retained ownership for more than 120 days. About 16% retained ownership for 91-120 days, about 12% for 61 to 90 days, another 12% for 31-60 days, and 1.7% for less than 30 days.



*Figure 9. Length of time ownership retained of most of their calves after weaning, by province*

Table 23. Length of time ownership retained of most of their calves after weaning, by province

If ownership retained, for how long	Percent of respondents						
	CAN (n=235)	BC (n=15)	AB (n=83)	SK (n=49)	MB (n=23)	ON (n=43)	QC&M (n=22)
Less than 30 days	1.7%	6.7%	0%	0%	0%	4.7%	4.5%
30 days	0.9%	0%	0%	2.0%	0%	0%	4.5%
31-45 days	5.1%	0%	4.8%	4.1%	4.3%	4.7%	13.6%
46-60 days	5.5%	0%	6.0%	6.1%	4.3%	4.7%	9.1%
61-90 days	11.9%	13.3%	15.7%	14.3%	4.3%	4.7%	13.6%
91-120 days	15.7%	13.3%	12.0%	24.5%	39.1%	4.7%	9.1%
More than 120 days	59.1%	66.7%	61.4%	49.0%	47.8%	76.7%	45.5%

Across Canada, the most cited reasons for not retaining ownership were the need for cash flow (37.6%) and satisfaction with current practices (18.4%). Other notable reasons include the lack of feed, notably in Saskatchewan (21.5%), Alberta (13.6%) and Manitoba (12.1%), reflecting the drought conditions in these provinces during the surveyed years.

Additionally, 8.4% of respondents selected "Other" reasons related to resource management such as limited land base/pen space/water availability, economic considerations such as the lack of economies of scale for feeding, selling calves before the major calf run to get the best prices, and personal factors such as approaching retirement.

### Top Reason for Not Retaining Ownership

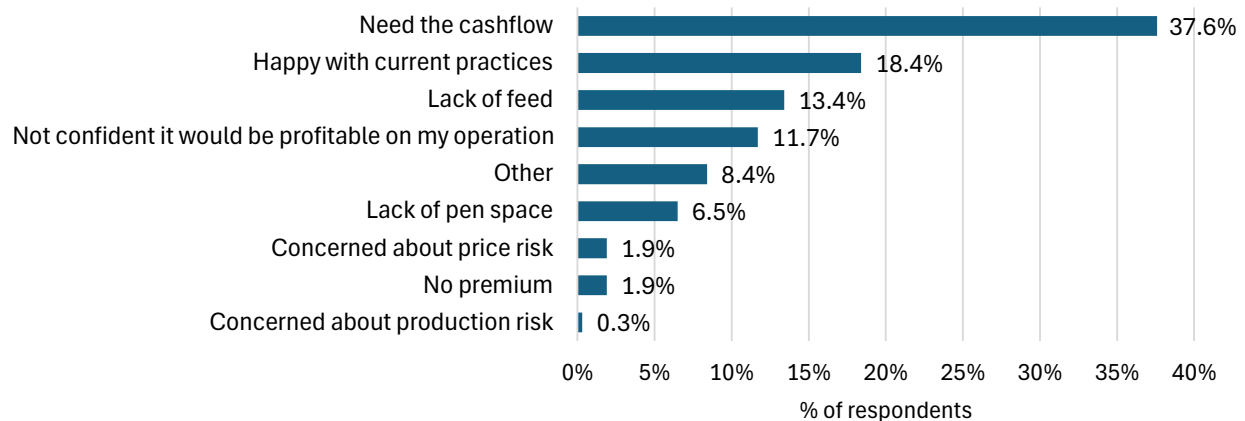


Figure 10. Top reason for not retaining ownership, Canada



Table 24. Top reason for not retaining ownership, by province

Top reason why you don't retain ownership	Percent of respondents						
	CAN (n=349)	BC (n=39)	AB (n=125)	SK (n=79)	MB (n=33)	ON (n=48)	QC&M (n=35)
Need the cashflow	37.6%	41.0%	39.2%	36.7%	51.5%	31.3%	25.7%
Happy with current practices	18.4%	23.1%	19.2%	7.6%	9.1%	27.1%	31.4%
Lack of feed	13.4%	10.3%	13.6%	21.5%	12.1%	4.2%	11.4%
Not confident it would be profitable on my operation	11.7%	15.4%	9.6%	16.5%	9.1%	10.4%	8.6%
Lack of pen space	6.5%	0.0%	6.4%	2.5%	6.1%	12.5%	14.3%
No premium	1.9%	0.0%	0.0%	5.1%	3.0%	0.0%	5.7%
Concerned about price risk	1.9%	0.0%	4.0%	1.3%	0.0%	2.1%	0.0%
Concerned about production risk	0.3%	0.0%	0.0%	0.0%	3.0%	0.0%	0.0%
Other	8.4%	10.3%	8.0%	8.9%	6.1%	12.5%	2.9%

Nationally, the leading motivations for retaining ownership are to sell into a different time period (54.4%) and to secure a higher price (48.9%). Other notable motivations include improving calf health (28.5%) and meeting buyer requirements (22.6%).

About a third of respondents selected "Other" motivations. These motivations are related to marketing strategies such as direct sale to consumers, grass-finish and sell into niche markets, breeding stock sales; genetic performance such as collecting data to observe and improve genetics; and operational practices such as increasing herd size, utilizing pasture and manure.

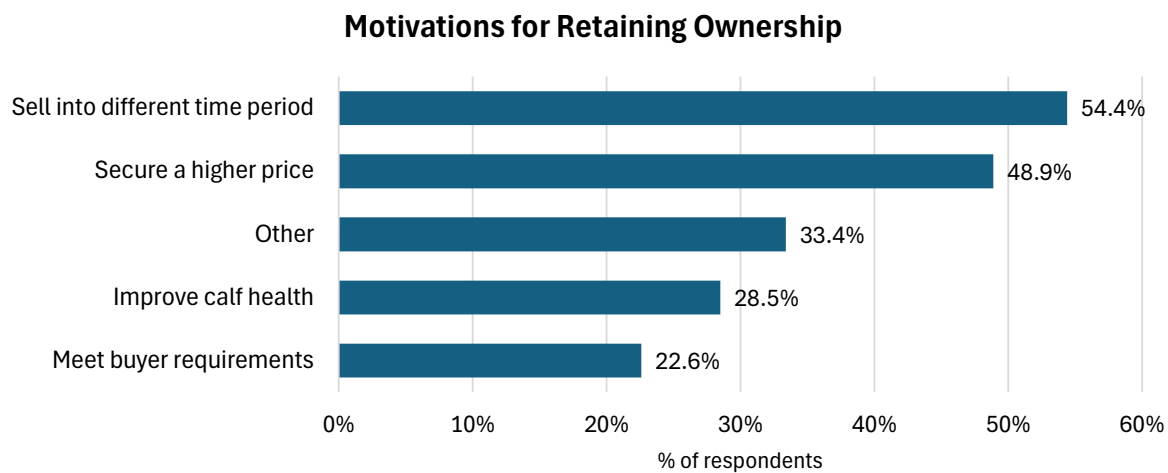


Figure 11. Motivations for retaining ownership of most of their calves after weaning, by province

Table 25. Motivations for retaining ownership of most of their calves after weaning, by province

Motivation for retaining ownership (select all that apply)	Percent of respondents*						
	CAN (n=234)	BC (n=15)	AB (n=82)	SK (n=50)	MB (n=23)	ON (n=43)	QC&M (n=21)
Sell into different time period	54.4%	53.3%	57.3%	72.0%	69.6%	32.6%	42.9%
Secure a higher price	48.9%	33.3%	53.7%	52.0%	56.5%	32.6%	61.9%
Improve calf health	28.5%	26.7%	22.0%	36.0%	39.1%	27.9%	33.3%
Meet buyer requirements	22.6%	26.7%	22.0%	18.0%	21.7%	20.9%	47.6%
Other	33.4%	40.0%	31.7%	26.0%	30.4%	51.2%	28.6%

\* Percentages add up to more than 100% as respondents can select all that apply.

Among those who retained ownership, introducing feedstuffs was practiced by 63.2% of respondents nationally, followed by low-stress weaning (58.2%), vaccination after weaning (57.3%), bunk breaking calves (43.9%), dehorning and castration before weaning (41.8%), booster vaccines two weeks before weaning (34.3%) and introducing calves to water bowls (24%).

Ten per cent of respondents selected "Other" practices such as deworming, treat for lice, weighing at weaning, creep feed, and keeping heifers with cows longer to enhance epigenetic selection and improve grazing behavior.

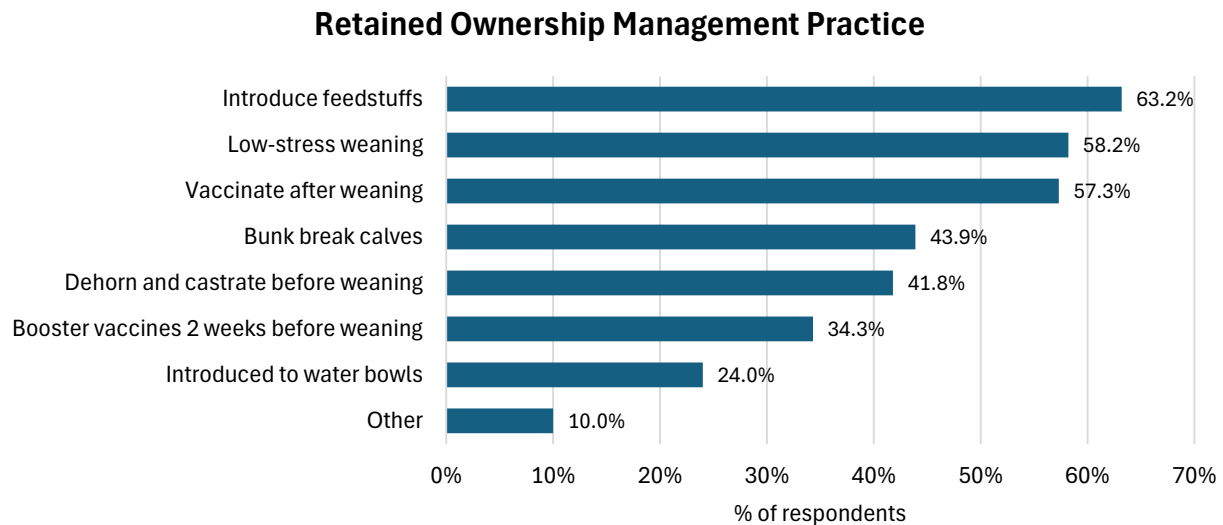


Figure 12. Practices as part of retaining ownership, Canada

Table 26. Practices as part of retaining ownership, by province

What practices were part of retained ownership (select all that apply)	Respondents percent						
	CAN (n=235)	BC (n=14)	AB (n=82)	SK (n=50)	MB (n=23)	ON (n=43)	QC&M (n=23)
Introduce feedstuffs	63.2%	57.1%	58.5%	70.0%	69.6%	58.1%	43.5%
Low-stress weaning	58.2%	71.4%	59.8%	52.0%	69.6%	65.1%	43.5%
Vaccinate after weaning	57.3%	57.1%	69.5%	54.0%	39.1%	53.5%	56.5%
Bunk break calves	43.9%	35.7%	46.3%	40.0%	34.8%	46.5%	60.9%
Dehorn and castrate before weaning	41.8%	42.9%	39.0%	42.0%	30.4%	55.8%	43.5%
Booster vaccines 2 weeks before weaning	34.3%	28.6%	37.8%	30.0%	47.8%	32.6%	30.4%
Introduced to water bowls	24.0%	35.7%	42.7%	64.0%	56.5%	51.1%	60.9%
Other	10.0%	14.3%	4.9%	10.0%	8.7%	13.9%	13.0%

\* Percentages add up to more than 100% as respondents can select all that apply.

## SECTION 5. REPRODUCTIVE MANAGEMENT PRACTICES

### 5.1 Pregnancy Checking

Pregnancy checking is a recommended practice that allows producers to make management (e.g. utilization of winter feed) and marketing decisions based on the reproductive status of their herd. (BCRC, Adoption Rates of Recommended Practices by Cow-Calf Operators in Canada, 2019)

In 2021-2023, 63.5% of respondents always or almost always pregnancy checked most of their cows while 67.8% do so for their heifers. On the other hand, 36.5% of respondents rarely or never pregnancy checked their cows and 32.1% rarely or never pregnancy checked their heifers.

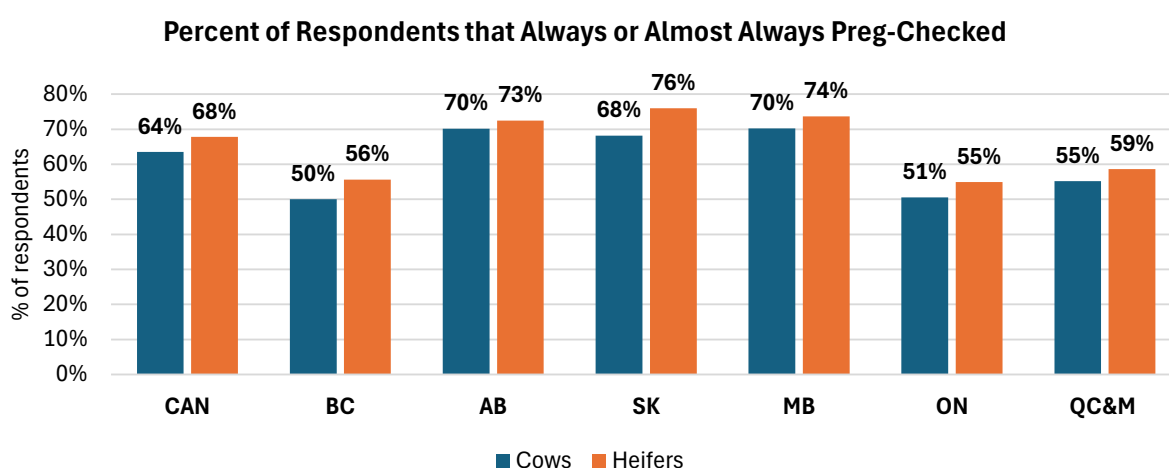


Figure 13. Percent of respondents that always or almost always pregnancy checked cows and heifers, by province

Table 27. Pregnancy checking frequency for cows and heifers, by province

Over the last three years, please indicate the frequency you pregnancy checked most of your cows and heifers							
	Percentage of respondents						
	CAN (n=599)	BC (n=54)	AB (n=211)	SK (n=128)	MB (n=57)	ON (n=91)	QC&M (n=58)
<b>Cows</b>							
Always or almost always	63.5%	50.0%	70.1%	68.2%	70.2%	50.5%	55.2%
Rarely	12.5%	14.8%	8.5%	7.8%	12.3%	23.1%	19.0%
Never	24.0%	35.2%	21.3%	24.0%	17.5%	26.4%	25.9%
<b>Heifers</b>							
Always or almost always	67.8%	55.6%	72.5%	76.0%	73.7%	54.9%	58.6%
Rarely	10.3%	11.1%	6.2%	7.8%	12.3%	14.3%	22.4%
Never	21.8%	33.3%	21.3%	16.3%	14.0%	30.8%	19.0%

The most common reasons cited for not performing pregnancy check include the ability to identify open females (32.9%) and the strategy of selling open cows after calving when cull prices are higher (26.2%). Financial considerations play a role, with 13.3% citing cost inefficiency. Other factors such as prioritizing different farming activities (7.1%), lack of facilities (5.8%), and shortage of labor (5.3%) also contributed to the decision-making process. Additionally, 2.2% noted unavailability of veterinarians. Seven per cent of respondents cited “other” reasons such as small herd and rare occurrence of opens.

### Top Reason for Not Preg-Checking

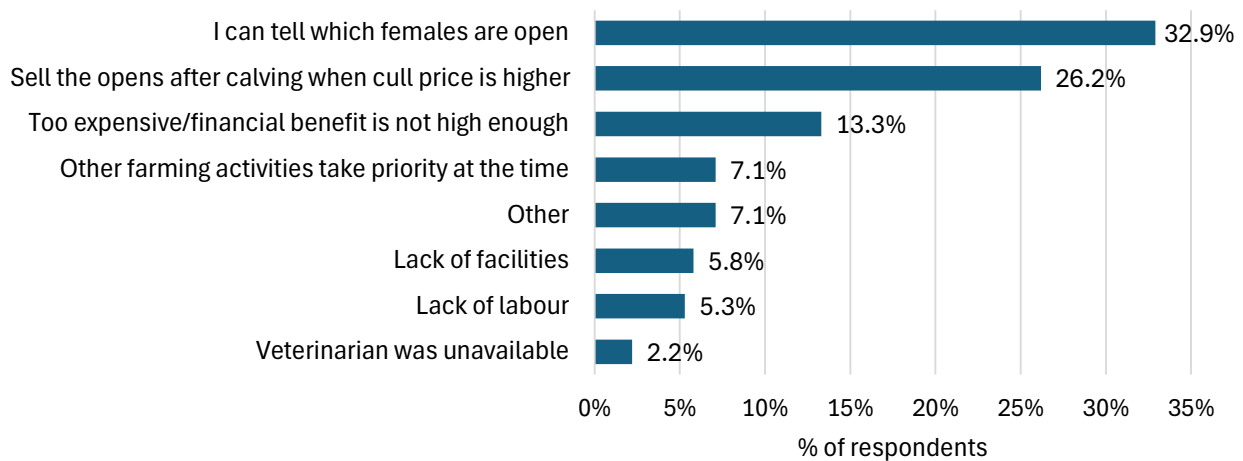


Figure 14. Top reasons for not performing pregnancy check, Canada

Table 28. Top reasons for not performing pregnancy check, by province

Top reason why you never or rarely pregnancy check cows or heifers	Percent of respondents						
	CAN (n=225)	BC (n=27)	AB (n=64)	SK (n=43)	MB (n=17)	ON (n=46)	QC&M (n=28)
I can tell which females are open	32.9%	29.6%	26.6%	39.5%	23.5%	30.4%	50.0%
No need to, I just sell the opens after calving when cull price is higher	26.2%	29.6%	26.6%	27.9%	23.5%	30.4%	14.3%
Too expensive/financial benefit is not high enough	13.3%	22.2%	18.8%	7.0%	11.8%	13.0%	3.6%
Other farming activities take priority at the time	7.1%	3.7%	10.9%	4.7%	11.8%	6.5%	3.6%
Lack of facilities	5.8%	3.7%	4.7%	4.7%	5.9%	8.7%	7.1%
Lack of labour	5.3%	3.7%	4.7%	4.7%	17.6%	4.3%	3.6%
Veterinarian was unavailable	2.2%	0.0%	1.6%	0.0%	0.0%	4.3%	7.1%
Other	7.1%	7.4%	6.3%	11.6%	5.9%	2.2%	10.7%

## 5.2 Bull Breeding Soundness Evaluation

Bull infertility and reproductive diseases can lead to reproductive failure and be very costly to cow-calf operators. Producers can prevent costly problems by having a veterinarian test their bulls for fertility and disease. (BCRC, Adoption Rates of Recommended Practices by Cow-Calf Operators in Canada, 2019)

Close to 60% of respondents always or almost always test all their breeding bull(s) for breeding soundness evaluation with a veterinarian in the past three years (2021-23), while 24.7% always or almost always test for Trichomoniasis, and 21.3% did so for Vibriosis.

*Table 29. Frequency of checking bulls with a veterinarian, by province*

Over the last three years, did a veterinarian check all of your breeding bull(s) for the following	Percent of respondents						
	CAN (n=600)	BC (n=54)	AB (n=211)	SK (n=129)	MB (n=57)	ON (n=91)	QC&M (n=58)
	<b>Breeding Soundness Evaluation</b>						
Always or almost always	59.5%	33.3%	79.1%	74.4%	71.9%	20.9%	27.6%
Rarely	11.5%	24.1%	10.4%	7.0%	8.8%	13.2%	13.8%
Never	21.3%	52.9%	7.1%	10.9%	12.3%	54.9%	48.3%
Not all breeding bulls were tested	7.7%	16.7%	3.3%	7.8%	7.0%	11.0%	10.3%
	<b>Trichomoniasis</b>						
Always or almost always	24.7%	16.7%	30.3%	35.7%	28.1%	5.5%	13.8%
Rarely	9.3%	14.8%	12.8%	8.5%	14.0%	1.1%	1.7%
Never	52.5%	59.3%	46.0%	40.3%	42.1%	75.8%	70.7%
Not all breeding bulls were tested	13.5%	9.3%	10.9%	15.5%	15.8%	17.6%	13.8%
	<b>Vibriosis</b>						
Always or almost always	21.3%	16.7%	27.0%	27.9%	24.6%	4.4%	13.8%
Rarely	7.7%	16.7%	8.5%	7.8%	12.3%	2.2%	0.0%
Never	57.0%	55.6%	53.6%	48.1%	47.4%	75.8%	70.7%
Not all breeding bulls were tested	14.0%	11.1%	10.9%	16.3%	15.8%	17.6%	15.5%

The most common reasons for not testing bulls include satisfaction with current conception rates, cited by 34.2% of respondents, and testing bulls at the time of purchase (32.2%). Another 17.4% cited “other” reasons such as the use of artificial insemination, small herd size, diseases not prevalent in the area, or having a full vaccine protection program. Financial considerations play a role, with 5.7% mentioning cost inefficiency. Issues such as unavailable veterinary services (3.7%), prioritization of other farm activities (3.0%), lack of facilities (2.3%), and insufficient labor (1.3%) also contribute to the decision.

### Top Reason for Not Testing Bulls

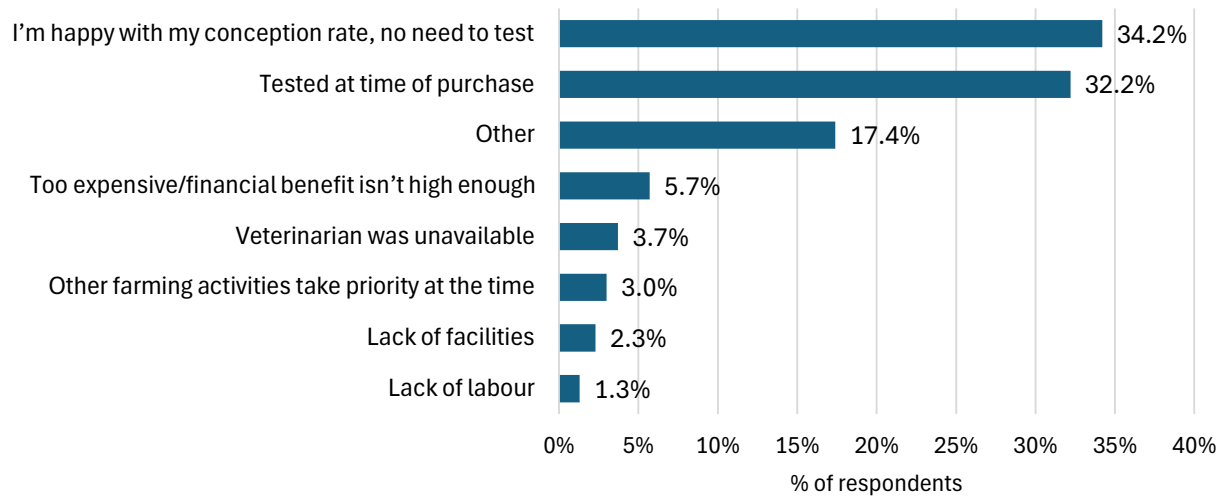


Figure 15. Top reasons for not testing bulls, Canada

Table 30. Top reason for not testing bulls, by province

Top reason why you never or rarely test bulls	Percent of respondents						
	CAN (n=298)	BC (n=35)	AB (n=89)	SK (n=43)	MB (n=25)	ON (n=67)	QC&M (n=39)
I'm happy with my conception rate, no need to test	34.2%	17.1%	36.0%	30.2%	32.0%	44.8%	33.3%
Tested at time of purchase	32.2%	48.6%	28.1%	32.6%	44.0%	25.4%	30.8%
Too expensive/financial benefit isn't high enough	5.7%	8.6%	6.7%	9.3%	0.0%	4.5%	2.6%
Veterinarian was unavailable	3.7%	11.4%	1.1%	0.0%	4.0%	4.5%	5.1%
Other farming activities take priority at the time	3.0%	0.0%	5.6%	4.7%	0.0%	1.5%	2.6%
Lack of facilities	2.3%	2.9%	0.0%	4.7%	0.0%	6.0%	0.0%
Lack of labour	1.3%	0.0%	2.2%	2.3%	4.0%	0.0%	0.0%
Other	17.4%	11.4%	20.2%	16.3%	16.0%	13.4%	25.6%

## SECTION 6. CALF MANAGEMENT PRACTICES

### 6.1 Resuscitation

Canadian producers employ varied approaches to resuscitate unresponsive newborn calves. Placing the neonate in calf recovery position and rubbing vigorously are commonly practiced methods, with 37% of respondents indicating they always use these techniques. Poking straw or a finger in the nose was also commonly practiced with 30% respondents indicating they always use this technique. Hanging calves upside down for a period of time or pouring cold water in the ear were rarely utilized, with 66 to 76% of respondents never employing these methods.

Additionally, respondents noted using “other” methods such as respiratory and oxygen support (cardiopulmonary resuscitation, blowing air into the mouth or nose), temperature control (bringing the calf to a warm area or using a hot box with an insulated blanket), medical and nutritional supports (administering epinephrine or vitamin A/D/E or, applying molasses to the gums), and other techniques (Madigan Squeeze, using cold water on the face or body).

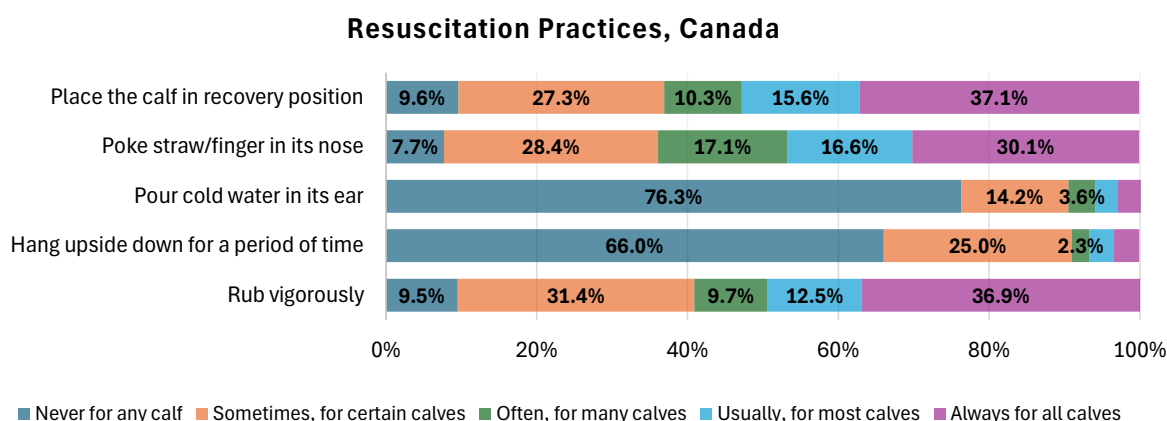


Figure 16. Method and frequency of resuscitation practices, Canada

Table 31. Method and frequency of resuscitation practices for unresponsive newborn calves, by province

If you need to resuscitate an unresponsive newborn calf, indicate how often you do the following	Never for any calf	Sometimes, for certain calves	Often, for many calves	Usually, for most calves	Always for all calves
<b>CANADA</b>					
Rub vigorously	9.5%	31.4%	9.7%	12.5%	36.9%
Hang upside down for a period of time	66.0%	25.0%	2.3%	3.2%	3.4%
Pour cold water in its ear	76.3%	14.2%	3.6%	2.9%	3.1%
Poke straw/finger in its nose	7.7%	28.4%	17.1%	16.6%	30.1%
Place the calf in recovery position	9.6%	27.3%	10.3%	15.6%	37.1%
<b>BC</b>					



Rub vigorously	11.3%	37.7%	13.2%	7.5%	30.2%
Hang upside down for a period of time	70.0%	24.0%	0.0%	4.0%	2.0%
Pour cold water in its ear	83.7%	12.2%	0.0%	2.0%	2.0%
Poke straw/finger in its nose	7.5%	37.7%	22.6%	15.1%	17.0%
Place the calf in recovery position	13.2%	32.1%	17.0%	13.2%	24.5%
<b>AB</b>					
Rub vigorously	6.8%	26.6%	10.6%	11.1%	44.9%
Hang upside down for a period of time	63.0%	24.5%	3.1%	4.2%	5.2%
Pour cold water in its ear	77.6%	12.2%	4.1%	2.0%	4.1%
Poke straw/finger in its nose	5.4%	23.8%	20.8%	15.8%	34.2%
Place the calf in recovery position	8.7%	20.3%	11.1%	15.0%	44.9%
<b>SK</b>					
Rub vigorously	7.0%	30.5%	8.6%	18.8%	35.2%
Hang upside down for a period of time	65.6%	26.2%	2.5%	3.3%	2.5%
Pour cold water in its ear	75.0%	16.7%	4.2%	4.2%	0.0%
Poke straw/finger in its nose	5.5%	25.8%	15.6%	20.3%	32.8%
Place the calf in recovery position	7.9%	29.4%	10.3%	20.6%	31.7%
<b>MB</b>					
Rub vigorously	8.9%	28.6%	12.5%	16.1%	33.9%
Hang upside down for a period of time	64.7%	27.5%	3.9%	0.0%	3.9%
Pour cold water in its ear	75.9%	13.0%	1.9%	5.6%	3.7%
Poke straw/finger in its nose	3.6%	27.3%	16.4%	18.2%	34.5%
Place the calf in recovery position	11.1%	22.2%	13.0%	14.8%	38.9%
<b>ON</b>					
Rub vigorously	10.0%	38.9%	5.6%	12.2%	33.3%
Hang upside down for a period of time	69.4%	23.5%	2.4%	2.4%	2.4%
Pour cold water in its ear	70.2%	16.7%	4.8%	2.4%	6.0%
Poke straw/finger in its nose	12.5%	33.0%	11.4%	18.2%	25.0%
Place the calf in recovery position	6.8%	34.1%	4.5%	15.9%	38.6%
<b>QC&amp;M</b>					
Rub vigorously	23.2%	35.7%	8.9%	5.4%	26.8%
Hang upside down for a period of time	69.6%	25.0%	0.0%	3.6%	1.8%
Pour cold water in its ear	77.8%	14.8%	3.7%	1.9%	1.9%
Poke straw/finger in its nose	17.2%	36.2%	12.1%	8.6%	25.9%
Place the calf in recovery position	16.7%	38.9%	7.4%	9.3%	27.8%

## 6.2 Calving Assistance

In Canada, vitamin and mineral injections for newborn calves are frequently administered, with 48% of respondents always using them. Tube feeding colostrum shortly after birth was sometimes done by 66% of respondents. The administration of anti-inflammatory drugs to newborn calves and their dams after assisted calving was done occasionally, with the majority doing so sometimes (48% for calves, 52% for cows). Applying a navel dip or spray was less common, with 60% of respondents never used it, while 18% always do.

“Other” practices mentioned include bottle-feeding colostrum, giving oral vitamins, administering nasal vaccines to calves, providing oxytocin to cows, and monitoring calves to ensure they are nursing and latching within two hours.

### Calving Assistance Practices, Canada

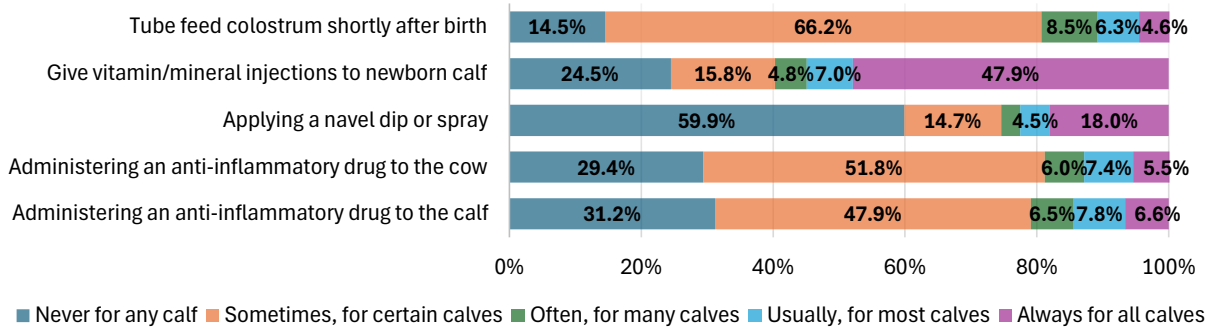


Figure 17. Calving assist practices, Canada

Table 32. Frequency distribution for calving assist practices by province

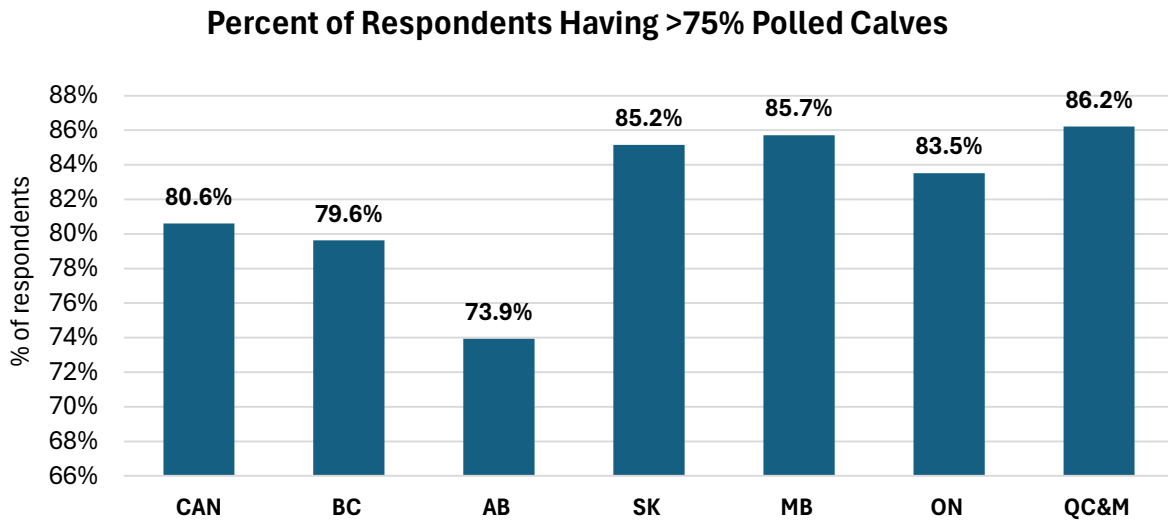
How often do you use the following in newborn calves and their dams who are assisted during calving?	Never for any calf	Sometimes, for certain calves	Often, for many calves	Usually, for most calves	Always for all calves
<b>Percentage of respondents</b>					
<b>CANADA</b>					
Administering an anti-inflammatory drug to the calf	31.2%	47.9%	6.5%	7.8%	6.6%
Administering an anti-inflammatory drug to the cow	29.4%	51.8%	6.0%	7.4%	5.5%
Applying a navel dip or spray	59.9%	14.7%	2.9%	4.5%	18.0%
Give vitamin/mineral injections to newborn calf	24.5%	15.8%	4.8%	7.0%	47.9%
Tube feed colostrum shortly after birth	14.5%	66.2%	8.5%	6.3%	4.6%
<b>BC</b>					
Administering an anti-inflammatory drug to the calf	25.9%	53.7%	5.6%	5.6%	9.3%
Administering an anti-inflammatory drug to the cow	25.9%	59.3%	3.7%	7.4%	3.7%
Applying a navel dip or spray	50.0%	14.8%	5.6%	3.7%	25.9%
Give vitamin/mineral injections to newborn calf	20.4%	27.8%	3.7%	7.4%	40.7%
Tube feed colostrum shortly after birth	14.8%	61.1%	13.0%	7.4%	3.7%
<b>AB</b>					
Administering an anti-inflammatory drug to the calf	24.0%	48.1%	7.2%	9.6%	11.1%
Administering an anti-inflammatory drug to the cow	19.8%	52.2%	8.2%	10.1%	9.7%
Applying a navel dip or spray	64.7%	17.2%	3.4%	2.5%	12.3%
Give vitamin/mineral injections to newborn calf	25.7%	16.5%	6.3%	5.8%	45.6%
Tube feed colostrum shortly after birth	10.1%	65.7%	8.7%	8.2%	7.2%
<b>SK</b>					
Administering an anti-inflammatory drug to the calf	33.9%	46.0%	8.1%	9.7%	2.4%

Administering an anti-inflammatory drug to the cow	30.2%	52.4%	6.3%	6.3%	4.8%
Applying a navel dip or spray	69.9%	14.6%	0.8%	4.1%	10.6%
Give vitamin/mineral injections to newborn calf	39.8%	19.5%	3.3%	2.4%	35.0%
Tube feed colostrum shortly after birth	11.1%	65.9%	11.1%	4.0%	7.9%
<b>MB</b>					
Administering an anti-inflammatory drug to the calf	23.6%	56.4%	3.6%	12.7%	3.6%
Administering an anti-inflammatory drug to the cow	25.5%	54.5%	5.5%	12.7%	1.8%
Applying a navel dip or spray	68.5%	13.0%	0.0%	9.3%	9.3%
Give vitamin/mineral injections to newborn calf	23.6%	10.9%	3.6%	14.5%	47.3%
Tube feed colostrum shortly after birth	17.9%	69.6%	5.4%	7.1%	0.0%
<b>ON</b>					
Administering an anti-inflammatory drug to the calf	41.1%	43.3%	5.6%	3.3%	6.7%
Administering an anti-inflammatory drug to the cow	41.6%	49.4%	3.4%	2.2%	3.4%
Applying a navel dip or spray	48.9%	11.1%	6.7%	4.4%	28.9%
Give vitamin/mineral injections to newborn calf	10.0%	8.9%	2.2%	8.9%	70.0%
Tube feed colostrum shortly after birth	23.3%	70.0%	3.3%	3.3%	0.0%
<b>QC&amp;M</b>					
Administering an anti-inflammatory drug to the calf	48.2%	44.6%	5.4%	1.8%	0.0%
Administering an anti-inflammatory drug to the cow	51.9%	42.6%	3.7%	1.9%	0.0%
Applying a navel dip or spray	38.9%	13.0%	0.0%	9.3%	38.9%
Give vitamin/mineral injections to newborn calf	14.3%	8.9%	8.9%	10.7%	57.1%
Tube feed colostrum shortly after birth	20.0%	63.6%	9.1%	7.3%	0.0%

## 6.3 Dehorning

Dehorning beef cattle is a common management practice to reduce the risk of injury and bruising to other cattle and to improve handler safety. (BCRC, Dehorning, 2023)

The majority (80.6%) of respondents had more than 75% of their calves born polled.



*Figure 18. Poll genetics 2023-born calves, by province*

When dehorning, 28.7% reported doing so shortly after birth. Spring processing was the most common time overall at 31.2%. Dehorning at (7.8%) and post-weaning (7.8%) was less common nationwide, but post-weaning dehorning was notably high in Quebec & Maritimes (29.6%). Additionally, 18.7% of respondents nationwide chose not applicable or do not dehorn.

“Other” dehorning times are used by 5.9% of respondents nationwide, with Ontario showing highest percentage at 20.5%. These other dehorning times include fall or summer processing, two to eight weeks pre-weaning, and on branding day.

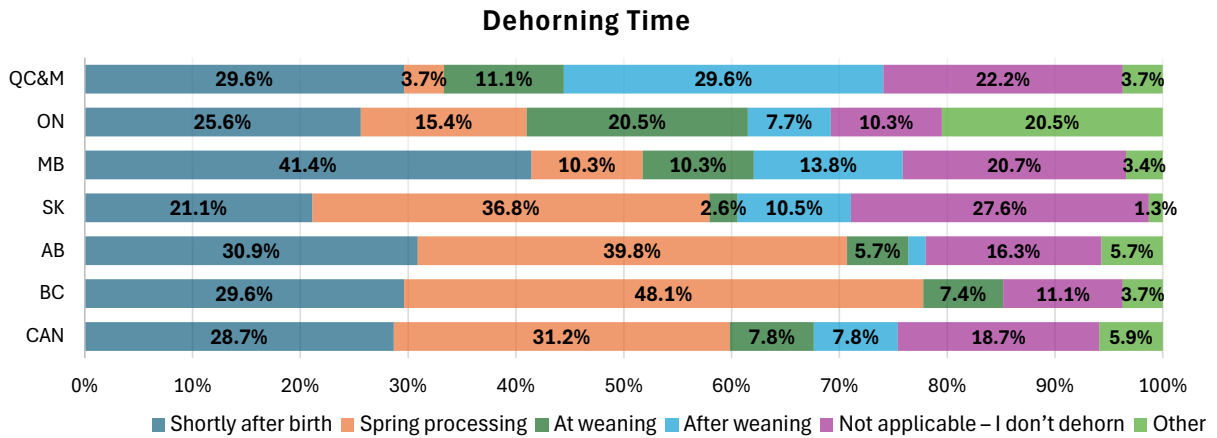


Figure 19. Typical timing for dehorning calves, by province

Table 33. Typical timing for dehorning calves, by province

If you dehorn, when do you typically dehorn your calves?	Percent of respondents						
	CAN (n=321)	BC (n=27)	AB (n=123)	SK (n=76)	MB (n=29)	ON (n=39)	QC&M (n=27)
Shortly after birth	28.7%	29.6%	30.9%	21.1%	41.4%	25.6%	29.6%
Spring processing	31.2%	48.1%	39.8%	36.8%	10.3%	15.4%	3.7%
At weaning	7.8%	7.4%	5.7%	2.6%	10.3%	20.5%	11.1%
After weaning	7.8%	0.0%	1.6%	10.5%	13.8%	7.7%	29.6%
Not applicable/Do not dehorn	18.7%	11.1%	16.3%	27.6%	20.7%	10.3%	22.2%
Other	5.9%	3.7%	5.7%	1.3%	3.4%	20.5%	3.7%

In terms of methods, dehorning paste was the most widely used at 34% of respondents, followed by electric disbudders at 25.6%. The use of spoons, saws, wires, keys, or guillotines were reported by 26.3% of respondents. A small percentage of respondents (0.4%) do not to dehorn their horned calves. Additionally, 13.7% of respondents use “other” methods such as hot iron or burner, gouge and burn, or knife for dehorning.

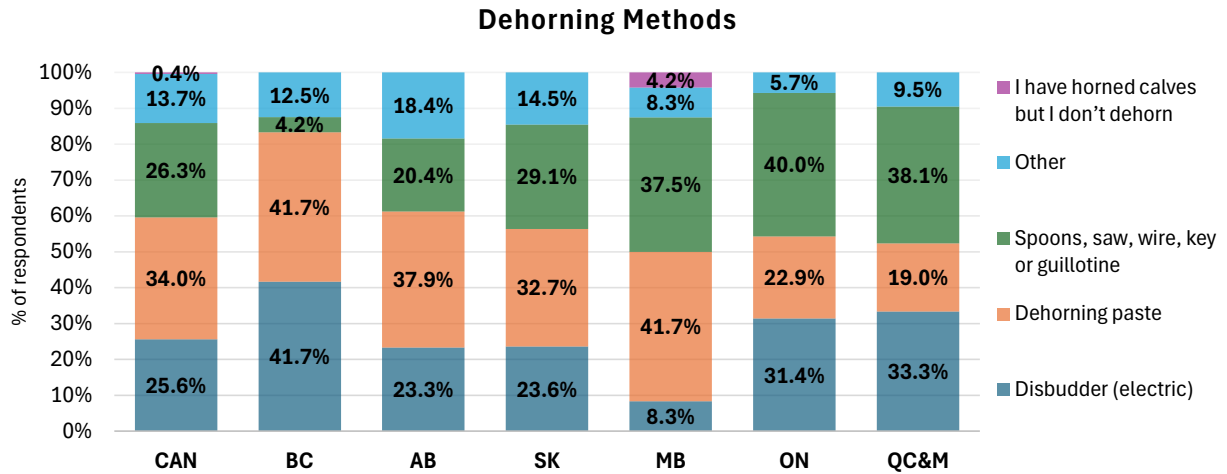


Figure 20. Typical method for dehorning among producers using this practice, by province

For those who dehorn calves, 47.3% of respondents always use some form of pain mitigation when dehorning, while 22.9% use it based on age and method.

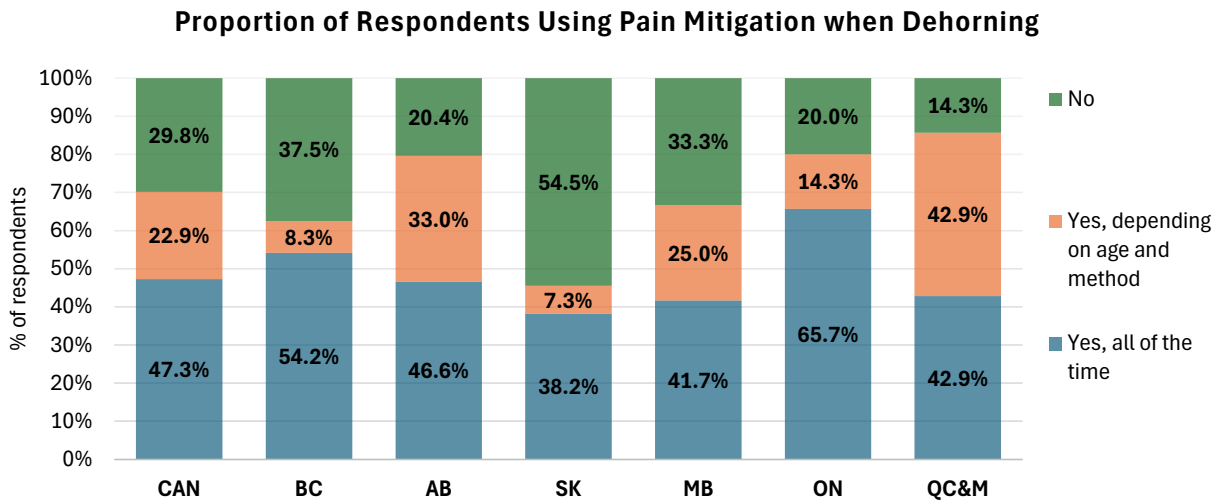


Figure 21. Proportion of producers using pain mitigation during dehorning, by province

The primary reason for not using pain mitigation during dehorning, cited by 71.8% of respondents, was that calves are dehorned before the horn buds attach to the skull. Financial concerns are cited by 11.5% of respondents, though this varies across provinces. “Other” reasons, such as time and labour constrain or low perceived stress, account for 16.7% of responses overall.

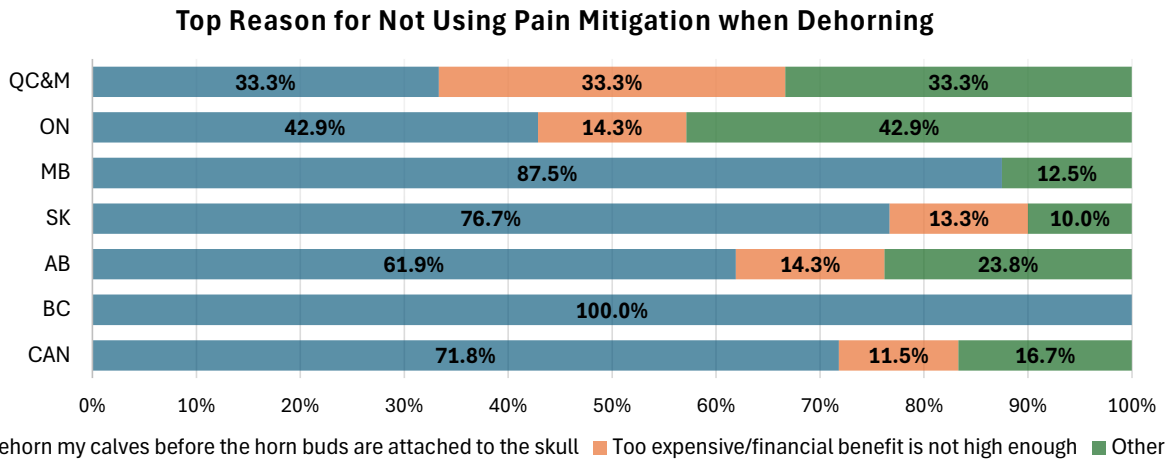


Figure 22. Top reason for not using pain mitigation when dehorning calves, by province

Dehorning, branding, and castration are painful. Attention has been placed on pain management during such procedures with recommendations and requirements in Canada’s Code of Practice for the Care and Handling of Beef Cattle. (BCRC, Adoption Rates of Recommended Practices by Cow-Calf Operators in Canada, 2019)

For those who used pain mitigation during dehorning, 78.6% used anti-inflammatory only, 15.9% used local anesthetic plus anti-inflammatory, 4.4% used local anesthetic or nerve block only.

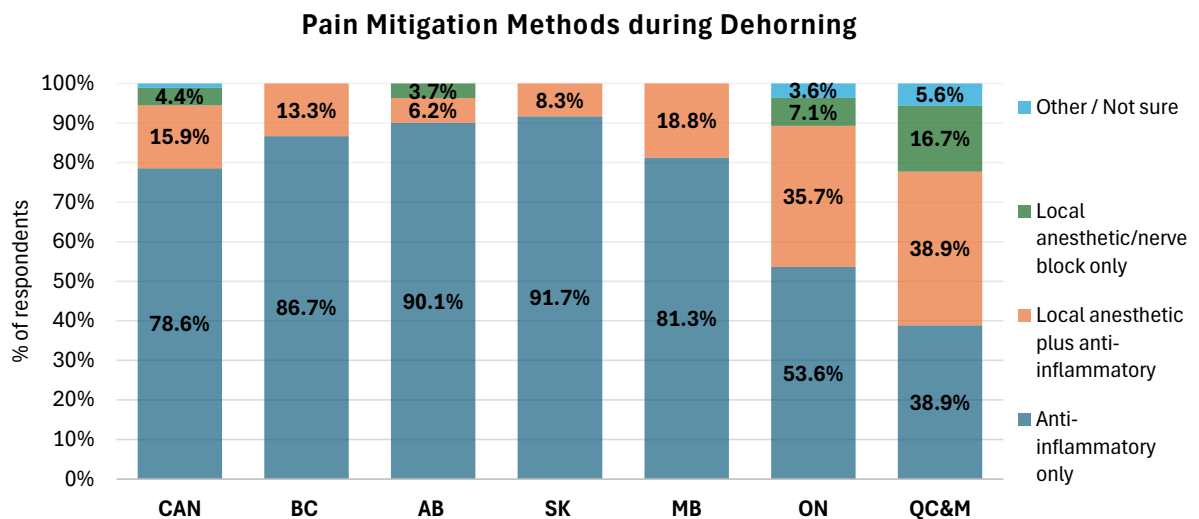


Figure 23. Typical pain mitigation method used for dehorning calves, by province

Table 34. Typical pain mitigation method used for dehorning calves, by province

What pain control method do you use to dehorn your calves?	Percent of respondents						
	CAN (n=182)	BC (n=15)	AB (n=81)	SK (n=24)	MB (n=16)	ON (n=28)	QC&M (n=18)
Anti-inflammatory only	78.6%	86.7%	90.1%	91.7%	81.3%	53.6%	38.9%
Local anesthetic plus anti-inflammatory	15.9%	13.3%	6.2%	8.3%	18.8%	35.7%	38.9%
Local anesthetic/nerve block only	4.4%	0.0%	3.7%	0.0%	0.0%	7.1%	16.7%
Other / Not sure	1.1%	0.0%	0.0%	0.0%	0.0%	3.6%	5.6%

## 6.4 Castration

Castration is a common management tool in the beef cattle sector for many reasons, including stopping the production of male hormones, preventing unplanned mating, decreasing aggression to enhance on-farm safety for handlers and animals, obtaining price premiums and/or avoid price discounts from feedlots and meat packers, producing meat with a consistent quality acceptable to consumers (i.e. higher grade, better marbling) and decreasing costs of managing bulls (i.e. larger, stronger facilities). (BCRC, Castration, 2023)

Nationally, 84.5% of respondents castrate their male calves less than three months old; 9.2% at three to six months old, 4.5% at six to nine months old, and less than 1% at nine months or older. One per cent of respondents don't castrate their male calves.

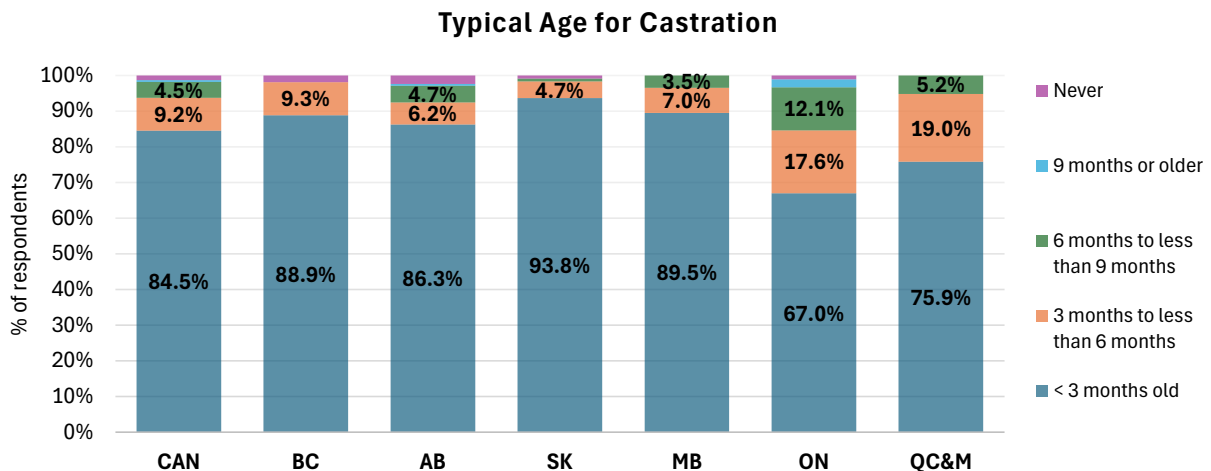


Figure 24. Typical age when bull calves are castrated, by province



Table 35. Typical age when bull calves are castrated, by province

What is the typical age when bull calves are castrated?	Percent of respondents						
	CAN (n=600)	BC (n=54)	AB (n=211)	SK (n=129)	MB (n=57)	ON (n=91)	QC&M (n=58)
< 3 months old	84.5%	88.9%	86.3%	93.8%	89.5%	67.0%	75.9%
3 months to less than 6 months	9.2%	9.3%	6.2%	4.7%	7.0%	17.6%	19.0%
6 months to less than 9 months	4.5%	0.0%	4.7%	0.8%	3.5%	12.1%	5.2%
9 months or older	0.5%	0.0%	0.5%	0.0%	0.0%	2.2%	0.0%
Never	1.3%	1.9%	2.4%	0.9%	0.0%	1.1%	0.0%

For those who castrated their male calves, the most common method for castration was using rubber band, reported by 80.2% of respondents, followed by 18.3% using surgical methods (e.g. blade or scalpel), while 1.2% use clamp or burdizzo.

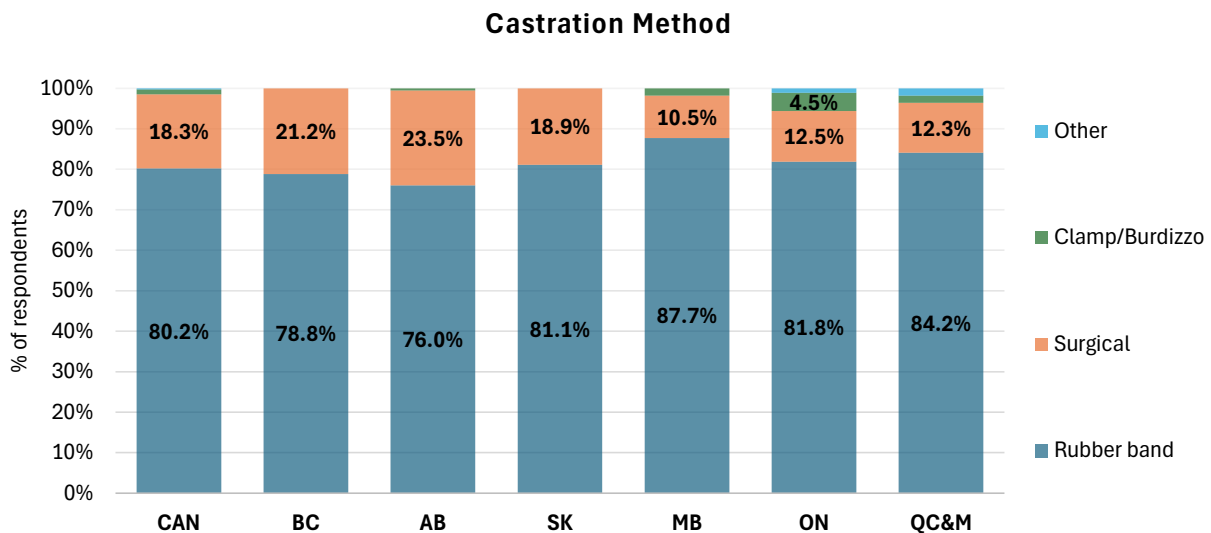


Figure 25. Typical castration method, by province

Table 36. Typical castration method, by province

Typical method to castrate	Percent of respondents						
	CAN (n=585)	BC (n=52)	AB (n=204)	SK (n=127)	MB (n=57)	ON (n=88)	QC&M (n=57)
Rubber band	80.2%	78.8%	76.0%	81.1%	87.7%	81.8%	84.2%
Surgical	18.3%	21.2%	23.5%	18.9%	10.5%	12.5%	12.3%
Clamp/Burdizzo	1.2%	0.0%	0.5%	0.0%	1.8%	4.5%	1.8%
Other	0.3%	0.0%	0.0%	0.0%	0.0%	1.1%	1.8%

Pain mitigation during castration was always used by 26.2% of respondents, while 20.4% used depending on age and method. More than half of respondents do not use pain mitigation during castration.

The primary reason for not using pain mitigation, was that calves are castrated before three months old (87% of respondents), followed by financial concerns (4.1%), though this varies across provinces. “Other” reasons, such as perceived low stress or pain as castration happens within 48 hours after birth, accounted for 8.9% of responses.

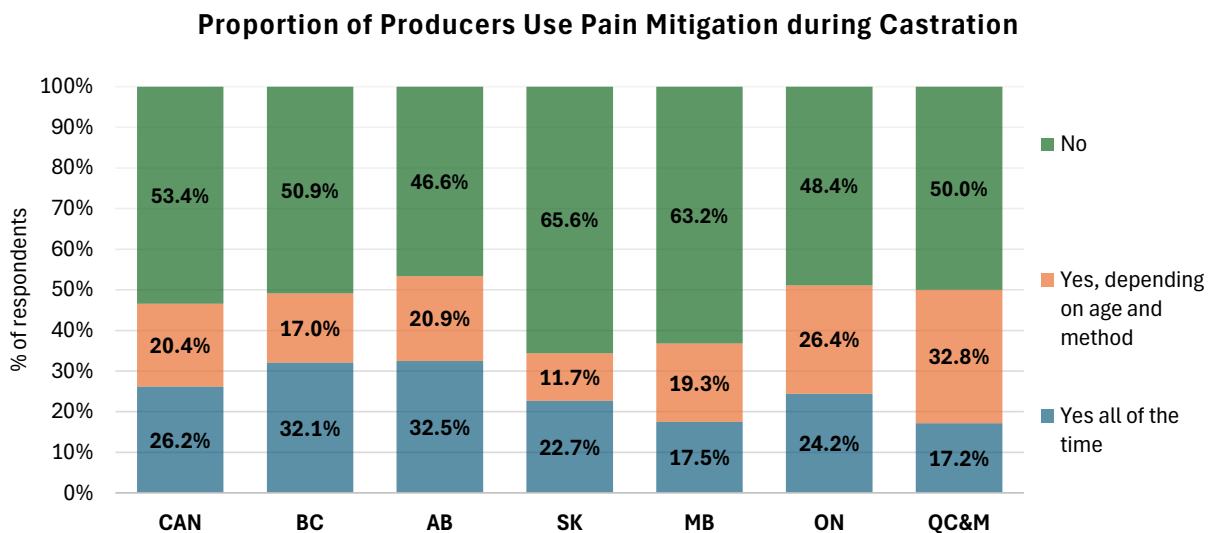


Figure 26. Proportion of respondents using pain mitigation during castration, by province

Table 37. Proportion of respondents using pain mitigation during castration, by province

Do you use pain control when castrating?	Percent of respondents						
	CAN (n=592)	BC (n=53)	AB (n=206)	SK (n=128)	MB (n=57)	ON (n=90)	QC&M (n=58)
Yes, all of the time	26.2%	32.1%	32.5%	22.7%	17.5%	24.2%	17.2%
Yes, depending on age and method	20.4%	17.0%	20.9%	11.7%	19.3%	26.4%	32.8%
No	53.4%	50.9%	46.6%	65.6%	63.2%	48.4%	50.0%

### Top Reason for Not Using Pain Mitigation during Castration

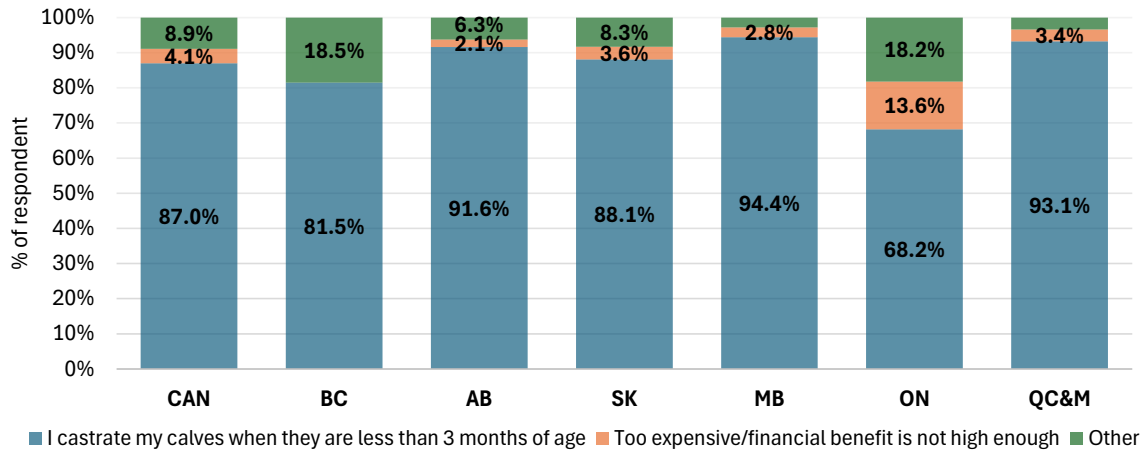


Figure 27. Top reason for not using pain mitigation during castration, by province

Table 38. Top reason for not using pain mitigation during castration, by province

Top reason for not using pain control when castrating	Percent of respondents						
	CAN (n=315)	BC (n=27)	AB (n=95)	SK (n=84)	MB (n=36)	ON (n=44)	QC&M (n=29)
I castrate my calves when they are less than 3 months of age	87.0%	81.5%	91.6%	88.1%	94.4%	68.2%	93.1%
Too expensive/financial benefit is not high enough	4.1%	0.0%	2.1%	3.6%	2.8%	13.6%	3.4%
Other/Not sure	8.9%	18.5%	6.3%	8.3%	2.8%	18.2%	3.4%

For those who used pain mitigation during castration, 85.8% used anti-inflammatory only, 9.5% used local anesthetic plus anti-inflammatory, 2.6% used local anesthetic or nerve block only.

### Pain Mitigation Methods during Castration

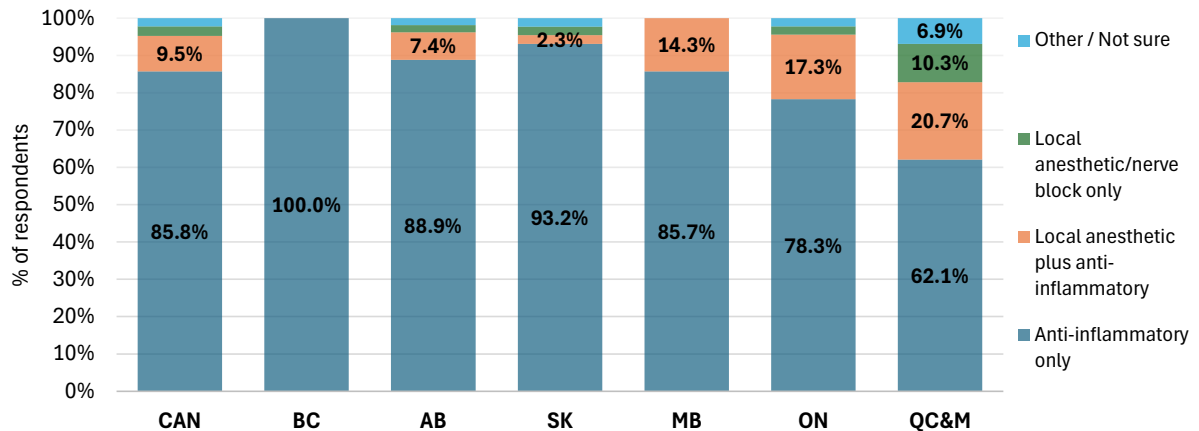


Figure 28. Typical pain mitigation method during castration, by province

Table 39. Typical pain mitigation method during castration, by province

What pain control method do you use to castrate your calves?	Percent of respondents						
	CAN (n=274)	BC (n=26)	AB (n=108)	SK (n=44)	MB (n=21)	ON (n=46)	QC&M (n=29)
Anti-inflammatory only	85.8%	100.0%	88.9%	93.2%	85.7%	78.3%	62.1%
Local anesthetic plus anti-inflammatory	9.5%	0.0%	7.4%	2.3%	14.3%	17.3%	20.7%
Local anesthetic/nerve block only	2.6%	0.0%	1.9%	2.3%	0.0%	2.2%	10.3%
Other	2.2%	0.0%	1.9%	2.3%	0.0%	2.2%	6.9%

## 6.5 Implants

Hormone implants promote faster and more efficient growth, through increase average daily gain and improve feed efficiency, thereby reducing the environmental footprint by decreasing the amount of feed required over the animal's lifetime and lowering the greenhouse gas emissions per kilogram of beef produced. (BCRC, Beef Quality Audits, 2024). Nationally, 24.7% of respondents implanted their 2023 calves. The practice varies regionally, with 5.5% in Ontario to 38.8% in Saskatchewan.

### Percent of Respondents Implanted 2023-born Calves

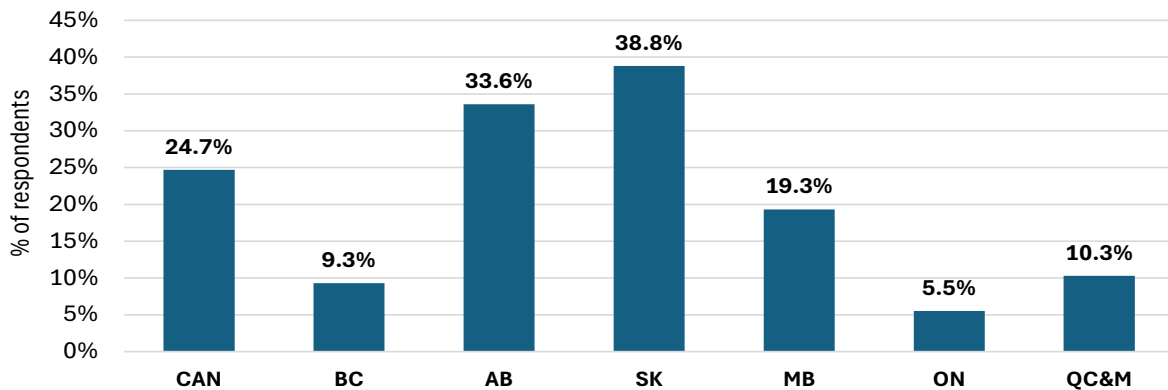


Figure 29. Percent of respondents implanted their 2023-born calves, by province

Of those who implanted, 87.1% implanted prior to weaning, 42.5% at weaning. The percentages exceed 100% as some respondents implanted their calves more than once – both prior to and at weaning.

Of those who implanted prior to weaning, 40.3% implanted only steer or bull calves, 38% implanted only non-replacements prior to weaning while 21.7% implanted all their calves.

Of those who implanted at weaning, 39.8% implanted only steer or bull calves, 52.3% implanted only non-replacements prior to weaning while 7.9% implanted all their calves.

Table 40. Use of implants in 2023-born calves, by province

Did you implant any of your 2023-born calves?	Percent of respondents						
	CAN (n=600)	BC (n=54)	AB (n=211)	SK (n=129)	MB (n=57)	ON (n=91)	QC&M (n=58)
Yes	24.7%	9.3%	33.6%	38.8%	19.3%	5.5%	10.3%
No	75.3%	90.7%	66.4%	61.2%	80.7%	94.8%	89.7%
<b>Implant prior to weaning</b>	<b>(n=129)</b>	<b>(n=5)</b>	<b>(n=66)</b>	<b>(n=43)</b>	<b>(n=9)</b>	<b>(n=4)</b>	<b>(n=3)</b>
All calves	21.7%	0.0%	31.8%	13.9%	0.0%	25.0%	0.0%
Only calves NOT INTENDED for replacement breeding stock	38.0%	60.0%	24.2%	41.8%	77.8%	50.0%	100.0%
Only steer/bull calves	40.3%	40.0%	43.9%	44.2%	22.2%	25.0%	0.0%
<b>Implant at weaning</b>	<b>(n=63)</b>	<b>(n=0)</b>	<b>(n=29)</b>	<b>(n=20)</b>	<b>(n=6)</b>	<b>(n=4)</b>	<b>(n=4)</b>
All calves	7.9%	--	10.4%	10.0%	0.0%	0.0%	0.0%
Only calves NOT INTENDED for replacement breeding stock	52.3%	--	38.0%	45.1%	83.4%	100.0%	100.0%
Only steer/bull calves	39.8%	--	51.7%	45.1%	16.6%	0.0%	0.0%

For those who do not implant, the top reason, selected by 22.6% of respondents, was a philosophical opposition to using implants. Finding it too expensive or seeing no financial benefit followed at 18.1%.

The "Other" category accounts for 17.7% of responses. These reasons include the lack of knowledge or interest in implants, buyer preferences for non-implanted calves, operational constraints like small herd sizes or EU certification, lack of observed benefits or disbelief in the effectiveness of implants, and breeding considerations such as not implanting purebred calves or those retained for breeding purposes.

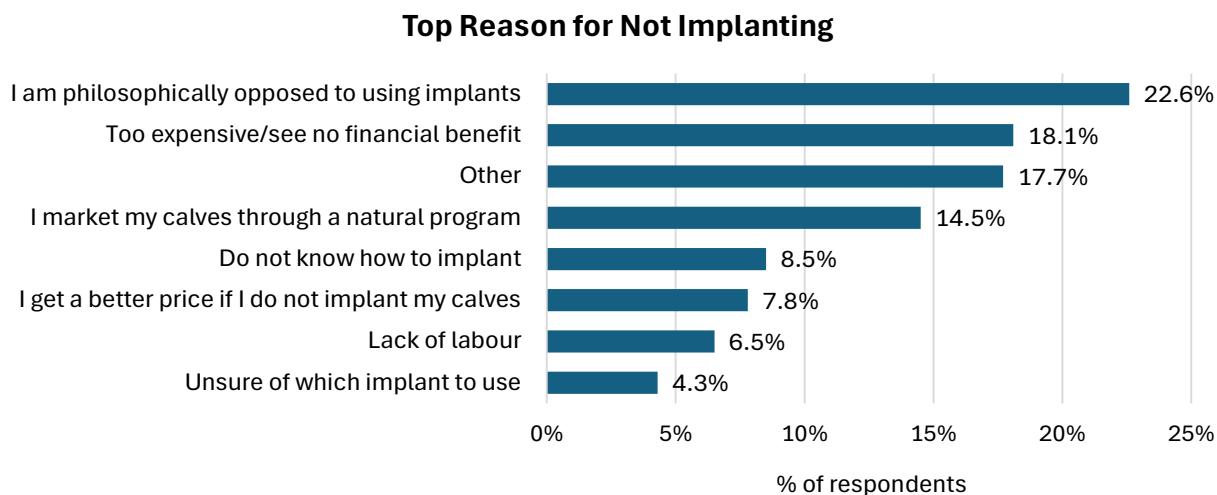


Figure 30. Top reason for not implanting, Canada

Table 41. Top reason for not implanting, by province

Top reason why you did not implant your calves	Percent of respondents						
	CAN (n=447)	BC (n=48)	AB (n=138)	SK (n=79)	MB (n=46)	ON (n=84)	QC&M (n=52)
I am philosophically opposed to using implants	22.6%	18.8%	23.9%	24.1%	28.3%	21.4%	7.7%
Too expensive/see no financial benefit	18.1%	20.8%	20.3%	25.3%	13.0%	10.7%	15.4%
I market my calves through a natural program	14.5%	2.1%	13.0%	6.3%	2.2%	19.0%	30.8%
Do not know how to implant	8.5%	29.2%	5.8%	8.9%	8.7%	7.1%	13.5%
I get a better price if I do not implant my calves	7.8%	4.2%	7.2%	6.3%	8.7%	11.9%	7.7%
Lack of labour	6.5%	12.5%	5.1%	8.9%	17.4%	4.8%	5.8%
Unsure of which implant to use	4.3%	12.5%	3.6%	5.1%	8.7%	3.6%	3.8%
Other	17.7%	0.0%	21.0%	15.2%	13.0%	21.4%	15.4%

## 6.6 Weaning Methods

Low-stress weaning techniques are key to supporting welfare and disease prevention in freshly weaned calves, thereby reducing the need for antibiotic treatments. The [Code of Practice for the Care and Handling of Beef Cattle](#) recommends developing a weaning strategy that minimizes stress,

such as two-stage or fence-line weaning. These practical weaning methods more closely imitate the natural weaning process where a cow rejects a calf’s attempts to nurse. (BCRC, Weaning, 2023)

About half (50.8%) of respondents use traditional separation for weaning, followed by one-third (32.4%) using fence line separation, 12% use nose paddle or two-stage weaning, and 2% rely on natural weaning.

Three per cent of respondents selected “other” methods. Among these respondents, the majority indicated selling calves directly off the cow, which should be considered traditional separation. A small portion of respondents who selected “other” methods used creep feeding or different methods for various groups of calves, such as traditional methods for heifers and two-stage weaning for steers.

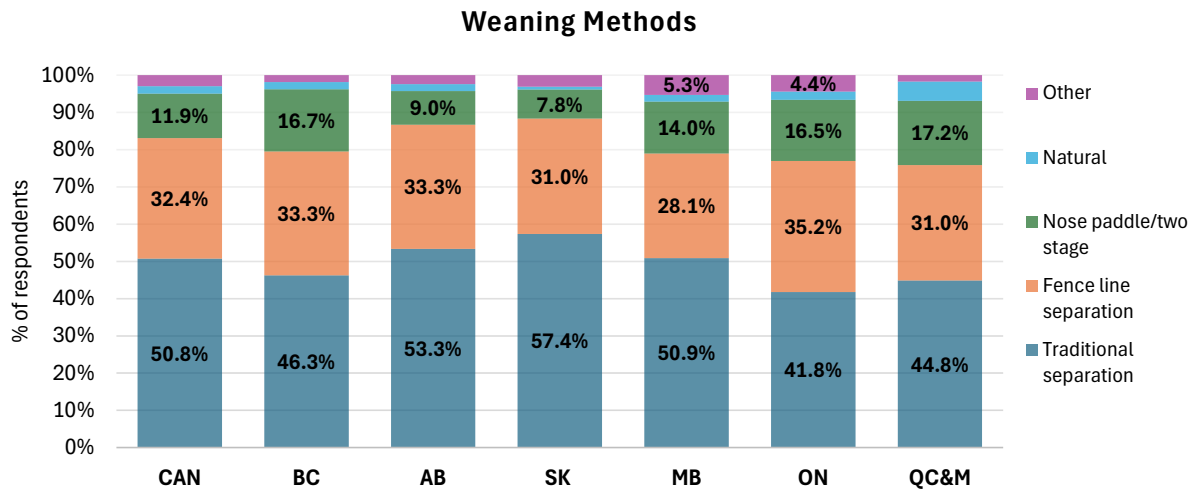


Figure 31. Weaning method typically used on operation, by province

Table 42. Weaning method typically used on operation, by province

Which weaning method do you typically use on your operation?	Percent of respondents						
	CAN (n=599)	BC (n=54)	AB (n=210)	SK (n=129)	MB (n=57)	ON (n=91)	QC&M (n=58)
Traditional separation	50.8%	46.3%	53.3%	57.4%	50.9%	41.8%	44.8%
Fence line separation	32.4%	33.3%	33.3%	31.0%	28.1%	35.2%	31.0%
Nose paddle/two stage	11.9%	16.7%	9.0%	7.8%	14.0%	16.5%	17.2%
Natural	2.0%	1.9%	1.9%	0.8%	1.8%	2.2%	5.2%
Other	3.0%	1.9%	2.4%	3.1%	5.3%	4.4%	1.7%

When asked about the reasons for using traditional separation when weaning calves, 58.7% indicated they sell their calves immediately after weaning. Additionally, 21.1% cited a lack of time, labor, or infrastructure to wean them differently, while 11.9% did not see any financial benefit from alternative methods.

Another 8% cited various “other” reasons for their choice. These other reasons include lack of infrastructure, logistics constraints such as cow being far away from home yard, satisfaction with traditional practice, and strategies like introducing calves to creep feed and providing comfortable pens to reduce stress.

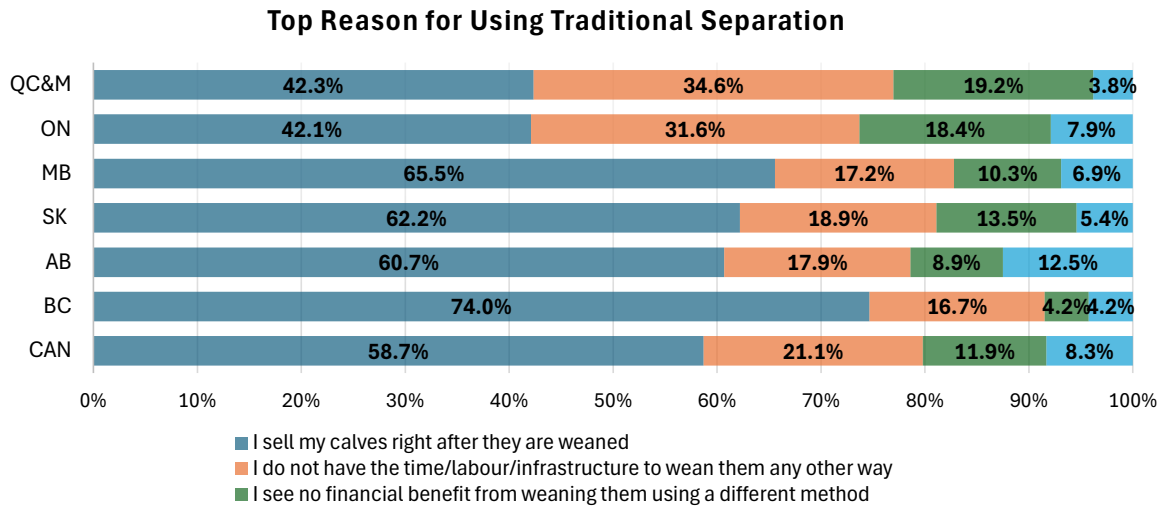


Figure 32. Top reason for using traditional separation, by province

Table 43. Top reason for using traditional separation, by province

If using traditional separation, top reason why	Percent of respondents						
	CAN (n=303)	BC (n=24)	AB (n=112)	SK (n=74)	MB (n=29)	ON (n=38)	QC&M (n=26)
I sell my calves right after they are weaned	58.7%	74.0%	60.7%	62.2%	65.5%	42.1%	42.3%
I do not have the time/labour/infrastructure to wean them any other way	21.1%	16.7%	17.9%	18.9%	17.2%	31.6%	34.6%
I see no financial benefit from weaning them using a different method	11.9%	4.2%	8.9%	13.5%	10.3%	18.4%	19.2%
Other	8.3%	4.2%	12.5%	5.4%	6.9%	7.9%	3.8%



# SECTION 7: GRAZING AND FEEDING MANAGEMENT PRACTICES

## 7.1 Feed Testing

Feed testing provides accurate analysis of protein levels, energy content, minerals, and other critical nutrients, as well as identifying potential toxins. This enables producers to make informed decisions about the diet of their livestock. Feed testing allows producers to prevent obvious nutritional deficiencies from occurring. The development of feed rations can then be tailored to optimize cattle nutrition by combining various feedstuff into a balanced diet, where the goal is to meet the nutritional needs of different categories within the herd. (BCRC, Adoption Rates of Recommended Practices by Cow-Calf Operators in Canada, 2019)

Across Canada, 9% of respondents indicated that they lab test feed for quality multiple times a year, 36.5% test at least once annually and 23.8% reported testing feed but not on an annual basis. Thirty-one per cent do not conduct any lab testing for feed quality.

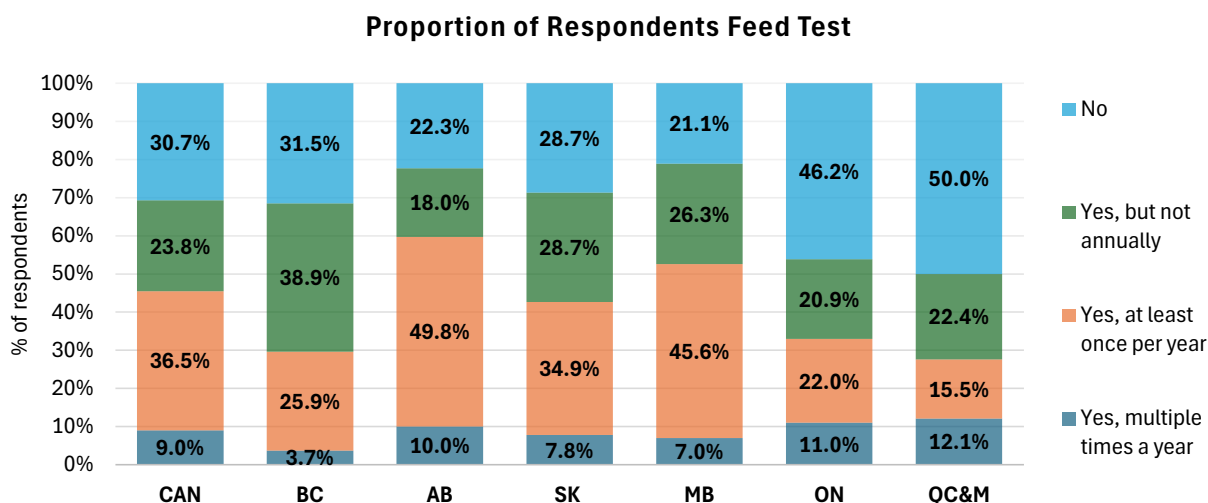


Figure 33. Proportion of respondents feed testing, by province

Table 44. Proportion of respondents feed testing, by province

Do you lab test any of your feed for quality?	Percent of respondents						
	CAN (n=600)	BC (n=54)	AB (n=211)	SK (n=129)	MB (n=57)	ON (n=91)	QC&M (n=58)
Yes, multiple times a year	9.0%	3.7%	10.0%	7.8%	7.0%	11.0%	12.1%
Yes, at least once per year	36.5%	25.9%	49.8%	34.9%	45.6%	22.0%	15.5%
Yes, but not annually	23.8%	38.9%	18.0%	28.7%	26.3%	20.9%	22.4%
No	30.7%	31.5%	22.3%	28.7%	21.1%	46.2%	50.0%

Close to half (48.8%) of respondents who feed test use the lab results to develop their own rations, more than a third (35.8%) use the results with a nutritionist, and 5.3% use the test results with their extension specialist. Ten per cent of respondents do not use the feed test results.

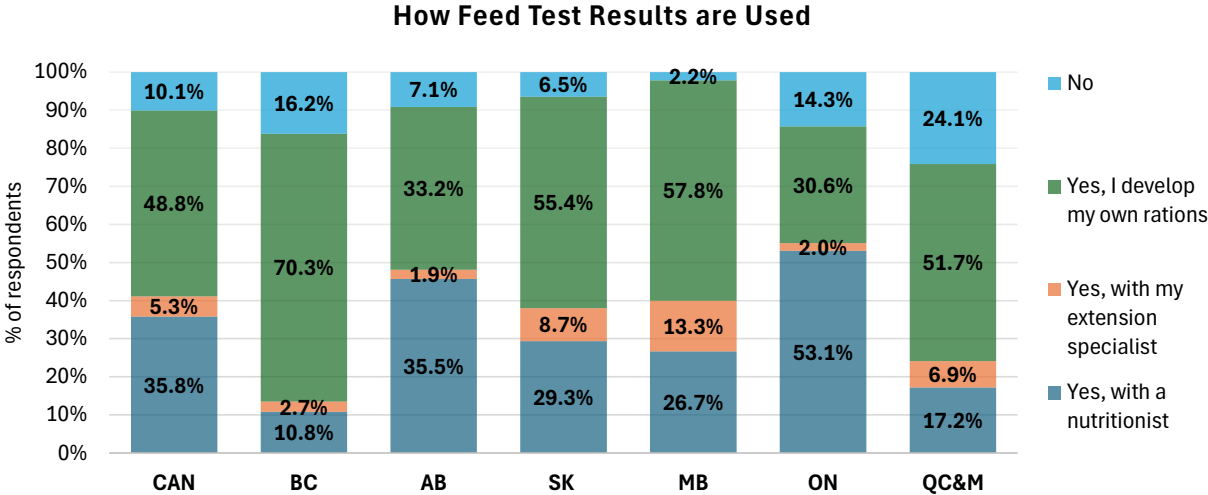


Figure 34. How feed test results are used, by province

Table 45. How feed quality tests are used, by province

Do you use the results of the feed test to develop rations?	Percent of respondents						
	CAN (n=416)	BC (n=37)	AB (n=164)	SK (n=92)	MB (n=45)	ON (n=49)	QC&M (n=29)
Yes, with a nutritionist	35.8%	10.8%	35.5%	29.3%	26.7%	53.1%	17.2%
Yes, with my extension specialist	5.3%	2.7%	1.9%	8.7%	13.3%	2.0%	6.9%
Yes, I develop my own rations	48.8%	70.3%	33.2%	55.4%	57.8%	30.6%	51.7%
No	10.1%	16.2%	7.1%	6.5%	2.2%	14.3%	24.1%

Of those who do not feed test, the majority (45.1%) cited the perception that their cattle appeared healthy, thus no need for testing. Other significant reasons included the lack of confidence in making or implementing plans based on feed test results (15.9%), the perceived high cost of testing (12.1%), and uncertainty about how to collect and send feed samples for analysis (9.9%). A smaller percentage mentioned buying all feed and relying on seller-provided tests (5.5%)

Additionally, 11.5% mentioned various “other” reasons, such as producing their own feed and relying on personal assessments of feed quality, as well as logistical challenges and costs associated with sending feed samples for testing, particularly in remote locations.

### Top Reason for Not Testing Feed

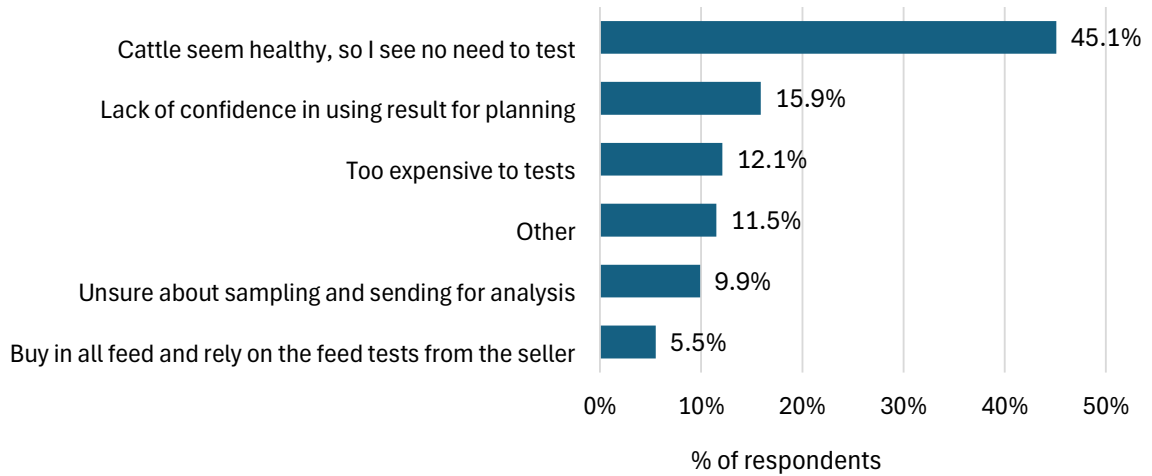


Figure 35. Top reason for not feed testing, Canada

Table 46. Top reason for not testing feed, by province

If not testing feed, top reason why	Percent of respondents						
	CAN (n=182)	BC (n=17)	AB (n=46)	SK (n=37)	MB (n=12)	ON (n=41)	QC&M (n=29)
My cattle seem healthy, so I see no need to test	45.1%	47.1%	52.2%	45.9%	41.7%	46.3%	31.0%
I am not confident that I can make or implement plans based on the results of the feed test	15.9%	23.5%	15.2%	10.8%	8.3%	14.6%	24.1%
It's too expensive to test	12.1%	0.0%	17.4%	13.5%	16.7%	14.6%	3.4%
I am not sure how to collect a feed sample and send it away for analysis	9.9%	11.8%	6.5%	10.8%	8.3%	12.2%	10.3%
I buy in all my feed and rely on the feed tests from the seller	5.5%	11.8%	2.2%	5.4%	0.0%	7.3%	6.9%
Other	11.5%	5.9%	6.5%	13.5%	25.0%	4.9%	24.1%

## 7.2 Water Testing

Water quality and intake will affect cattle growth and performance. High levels of sulfates, as reported by total dissolved solids (TDS), can lead to dehydration, reduced performance (e.g. milk yield or average daily gain), and death. The quality of a water source may change over time; therefore, conducting regular water tests is recommended to ensure that the quality remains adequate. (BCRC, Water Systems for Beef Cattle, 2023)

Six per cent of respondents reported testing livestock’s drinking water every year, 6% tested twice in the last three years, 26.2% did it once in the last three years, and 61.8% never tested livestock drinking water.

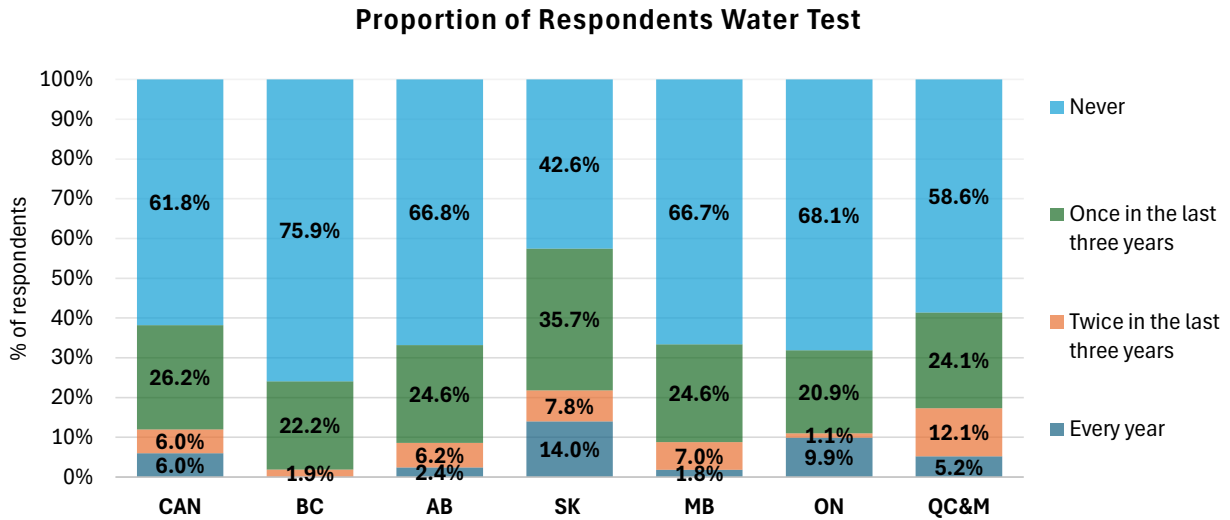


Figure 36. Proportion of respondents and frequency of water testing, by province

Table 47. Frequency of livestock’s water testing for quality, by province

In the last three years, how often have you lab tested your livestock’s drinking water?	Percent of respondents						
	CAN (n=600)	BC (n=54)	AB (n=211)	SK (n=129)	MB (n=57)	ON (n=91)	QC&M (n=58)
Every year	6.0%	0.0%	2.4%	14.0%	1.8%	9.9%	5.2%
Twice in the last three years	6.0%	1.9%	6.2%	7.8%	7.0%	1.1%	12.1%
Once in the last three years	26.2%	22.2%	24.6%	35.7%	24.6%	20.9%	24.1%
Never	61.8%	75.9%	66.8%	42.6%	66.7%	68.1%	58.6%

Of those who tested water at least once in the last three years, 62.4% tested in the summer, 21% in winter and 16.6% in both seasons.

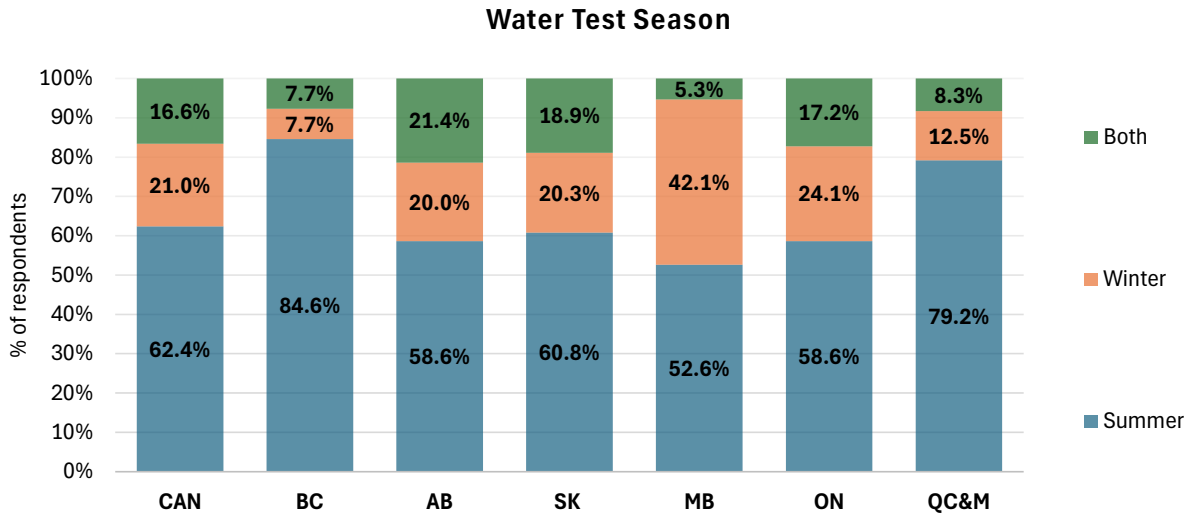


Figure 37. Water test season, by province

Table 48. Timing of livestock water testing for quality, by province

If at least once in the last three years, which season?	Percent of respondents						
	CAN (n=229)	BC (n=13)	AB (n=70)	SK (n=74)	MB (n=19)	ON (n=29)	QC&M (n=24)
Summer	62.4%	84.6%	58.6%	60.8%	52.6%	58.6%	79.2%
Winter	21.0%	7.7%	20.0%	20.3%	42.1%	24.1%	12.5%
Both	16.6%	7.7%	21.4%	18.9%	5.3%	17.2%	8.3%

Of those who never tested livestock’s drinking water, the most cited reason for not water testing was the belief that if the water is safe for human consumption, it is also safe for cattle (34.1%). Following this, 25.1% assume their spring or well water is good quality. Additionally, 20.5% of respondents see no need to test as their cattle appear healthy. Other reasons include lack of confidence in using test results (5.9%), uncertainty about sample collection and submission (5.1%), and the expense of testing (1.1%).

Furthermore, 8.9% of respondents mentioned various “other” reasons, such as relying on municipal water, consistently changing water sources like rivers and creeks, and only testing water every five years or longer.

### Top Reason for Not Testing Water

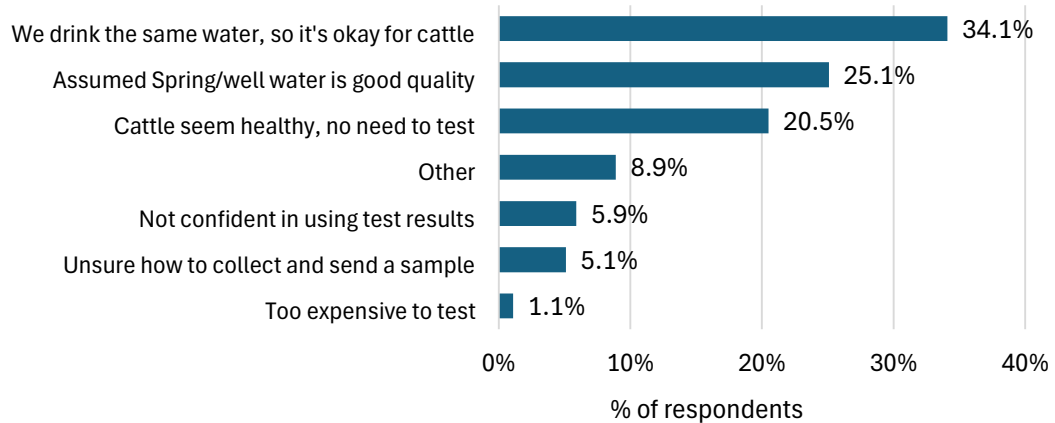


Figure 38. Top reason for not testing water quality, Canada

Table 49. Top reason for not testing water quality in past three years, by province

If not testing livestock drinking water, top reason why	Percent of respondents						
	CAN (n=370)	BC (n=40)	AB (n=141)	SK (n=55)	MB (n=38)	ON (n=62)	QC&M (n=34)
It's too expensive to test	1.1%	2.5%	1.4%	1.8%	0.0%	0.0%	0.0%
I am not sure how to collect a sample and send it away for analysis	5.1%	5.0%	5.0%	7.3%	10.5%	3.2%	0.0%
I am not confident I can make or implement plans based on the results of the tests	5.9%	5.0%	9.2%	3.6%	5.3%	3.2%	2.9%
My cattle seem healthy, so I see no need to test	20.5%	22.5%	25.5%	29.1%	10.5%	11.3%	11.8%
My water is spring fed/from a well, so I assume it is good quality	25.1%	12.5%	21.3%	36.4%	26.3%	24.2%	38.2%
We drink from the same water source – if it is okay for us, it must be okay for the cattle	34.1%	47.5%	29.8%	16.4%	28.9%	50.0%	41.2%
Other	8.9%	5.0%	7.8%	5.5%	18.4%	8.1%	5.9%

### 7.3 Body Condition Scoring

Nutrition is the most important factor affecting cow fertility. Maintaining an ideal body condition score of 3 will help ensure a cow maximizes her productivity by producing a calf every 365 days. Body Condition Scoring (BCS) is a technique to help producers determine the condition of their animals

and assess whether cattle need to be fed a different ration or managed differently. (BCRC, Adoption Rates of Recommended Practices by Cow-Calf Operators in Canada, 2019)

Close to 90% of respondents performed some type of BCS, which is an evaluation of fat cover on an animal. In Canada, body condition is scored from 1-5, with 1 being extremely thin and 5 being obese. A score of 3.0 is ideal. Fewer respondents (13.7%) performed hands-on BCS, while 74% used a less objective visual evaluation.

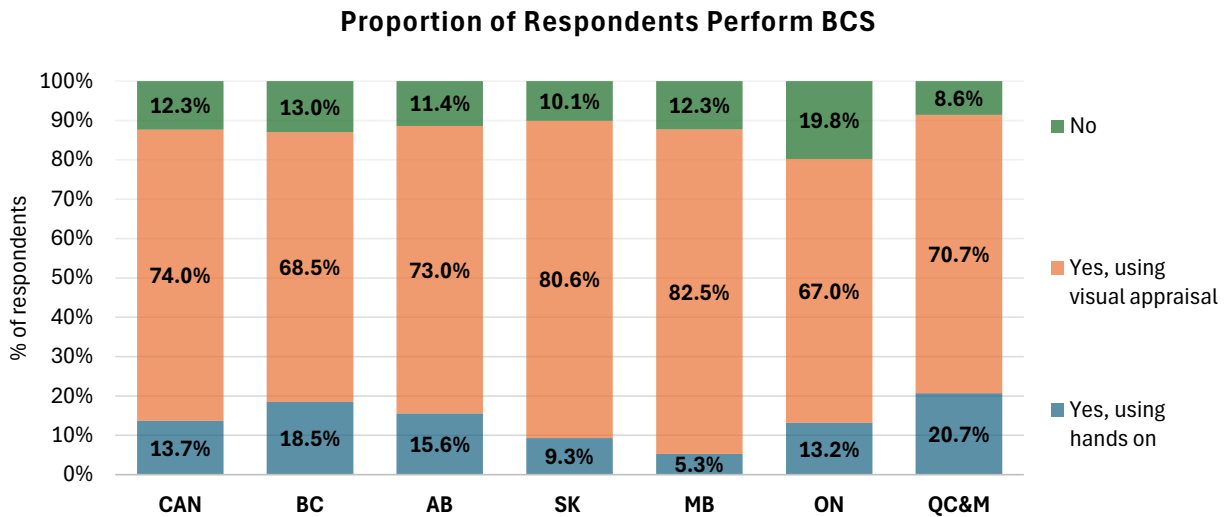


Figure 39. Proportion of respondents perform body condition scoring

Of those who performed BCS, 74% used it to manage their cows differently.

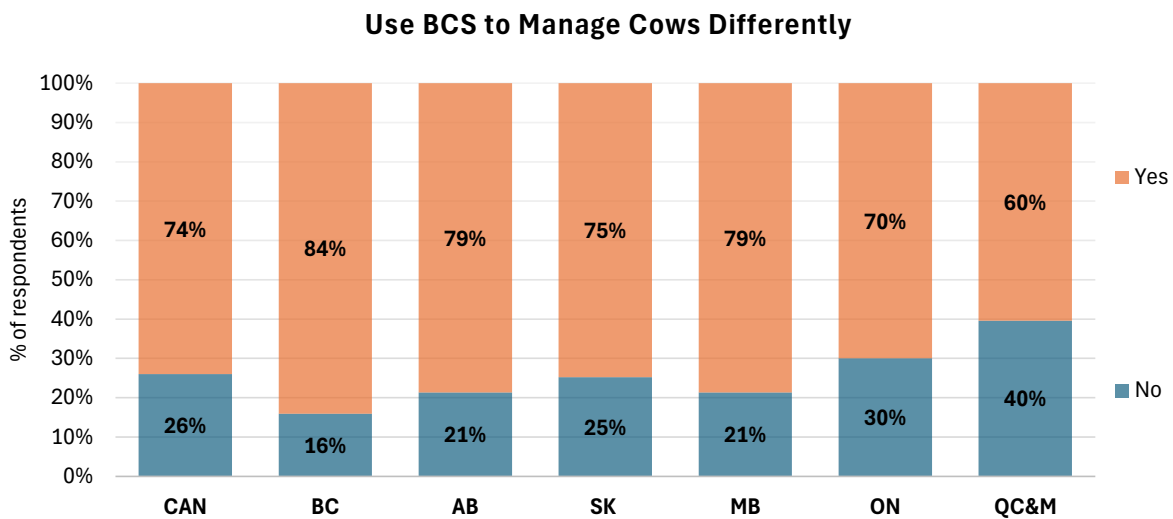


Figure 40. Use body condition score to manage cows differently, by province

Of those who used visual appraisal or no appraisal, 59% believe visual appraisal is good enough, and 15.3% think their cattle seem healthy and see no need to score. Other factors include not knowing how to perform hands-on body condition scoring (6.5%) and a lack of confidence in making or implementing feed plans based on BCS (5.9%). A smaller percentage of respondents cite constraints such as lack of time (3.3%), and insufficient facilities or labour (4.7%).

“Other” reasons, cited by 5.3% of respondents, include prefer visual assessment to mitigate stress and injury risks, opting for hands-on handling only for specific concerns, or large herd size.

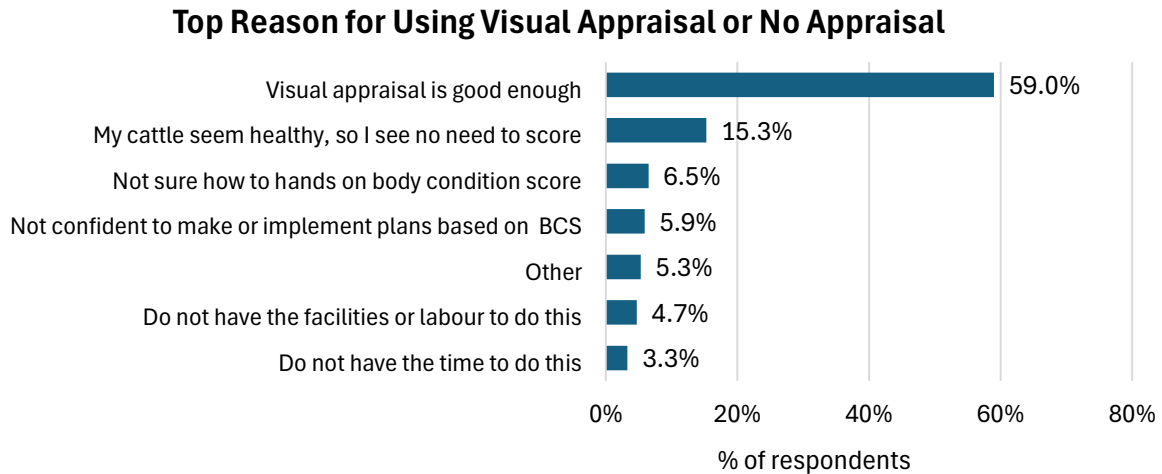


Figure 41. Top reason for using visual appraisal or no appraisal

Table 50. If only conduct visual appraisal for body conditioning score, or no appraisal, top reason why, by province

Top reason for using visual appraisal or no appraisal	Percent of respondents						
	CAN (n=510)	BC (n=44)	AB (n=177)	SK (n=117)	MB (n=49)	ON (n=78)	QC&M (n=45)
I do not have the time to do this	3.3%	2.3%	3.4%	4.3%	8.2%	1.3%	0.0%
I do not have the facilities or labour to do this	4.7%	0.0%	5.1%	1.7%	4.1%	10.3%	6.7%
I am not confident I can make or implement plans based on my animal’s body condition score	5.9%	4.5%	5.6%	6.8%	4.1%	2.6%	13.3%
I am not sure how to hands on body condition score	6.5%	9.1%	4.5%	6.0%	6.1%	11.5%	4.4%
My cattle seem healthy, so I see no need to score	15.3%	9.1%	19.8%	13.7%	12.2%	12.8%	15.6%
Visual appraisal is good enough	59.0%	65.9%	54.2%	65.0%	57.1%	60.3%	55.6%
Other	5.3%	9.1%	7.3%	2.6%	8.2%	1.3%	4.4%



## 7.4 Winter Feeding

Nationally, 39.3% of respondents feed cows in an open field or pasture during the entire winter, while 42.8% do so for the majority of the winter. About 18% of respondents feed cows in confinement during the winter-feeding period. In Ontario, Quebec and the Maritimes, there are a higher percentage of respondents (43-48%) feed cows in confinement compared to the western provinces (7-13%).

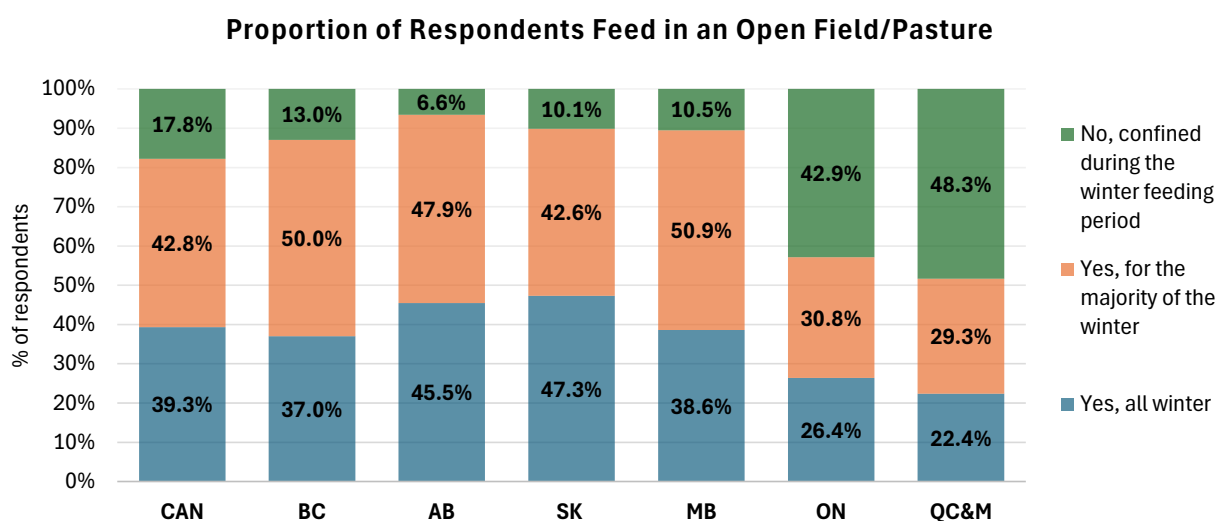


Figure 42. Winter feeding methods, by province

Table 51. Winter feeding methods, by province

Do you feed in an open field or pasture during the winter for your cows?	Percent of respondents						
	CAN (n=600)	BC (n=54)	AB (n=211)	SK (n=129)	MB (n=57)	ON (n=91)	QC&M (n=58)
Yes, all winter	39.3%	37.0%	45.5%	47.3%	38.6%	26.4%	22.4%
Yes, for the majority of the winter	42.8%	50.0%	47.9%	42.6%	50.9%	30.8%	29.3%
No, confined during the winter feeding period	17.8%	13.0%	6.6%	10.1%	10.5%	42.9%	48.3%

For those who winter-feed in an open field or pasture, the most common method was the use of unrolled bales, employed by 56.6% of respondents. This was followed by portable feeders at 39.6% and bale grazing at 30.2%. Other notable methods include silage bales (25.2%), crop residue (21.7%), and swath grazing (18.7%). A smaller proportion of respondents utilize year-round grazing (11.2%) and standing corn (10.8%).

“Other” was selected by 16% of respondents. These methods include Total Mixed Ration, silage in fence line feeders or using a bale processor.

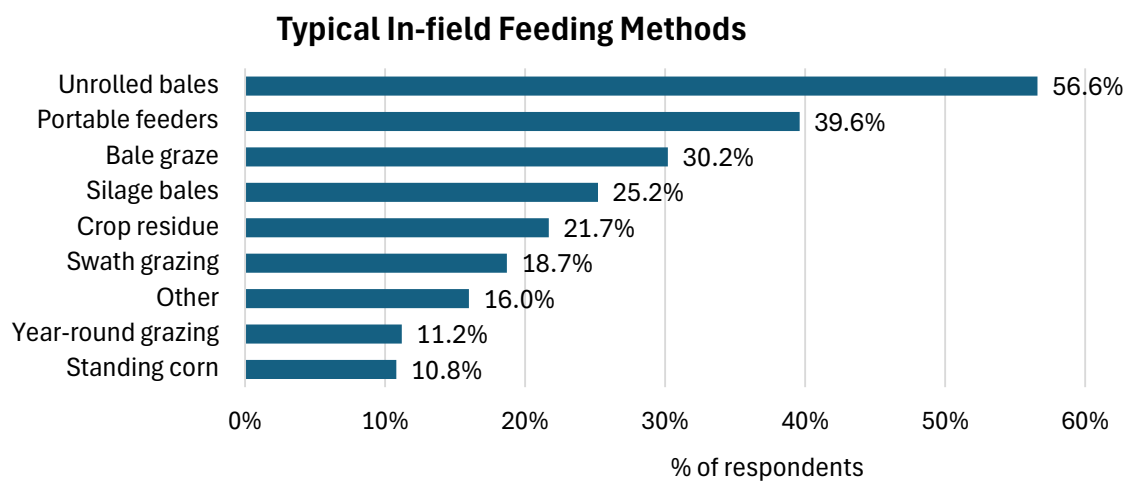


Figure 43. Typical in-field feeding methods, Canada

Table 52. Typical field feeding methods, by province

If yes, typical winter feeding method (select all that apply)	Percent of respondents*						
	CAN (n=493)	BC (n=47)	AB (n=196)	SK (n=116)	MB (n=51)	ON (n=52)	QC&M (n=29)
Standing corn	10.8%	2.1%	10.2%	16.4%	11.8%	7.7%	10.3%
Year-round grazing	11.2%	4.3%	14.3%	12.1%	9.8%	3.8%	13.8%
Swath grazing	18.7%	8.5%	27.6%	19.8%	17.6%	1.9%	0.0%
Crop residue	21.7%	8.5%	27.6%	25.0%	19.6%	17.3%	3.4%
Silage bales	25.2%	31.9%	20.4%	14.7%	61.3%	36.5%	48.3%
Bale graze	30.2%	25.5%	22.9%	31.0%	61.3%	50.0%	37.9%
Portable feeders	39.6%	55.3%	36.7%	21.5%	33.3%	67.3%	48.3%
Unrolled bales	56.6%	72.3%	58.2%	61.2%	58.8%	34.6%	41.4%
Other	16.0%	10.6%	20.4%	14.7%	21.6%	9.6%	0.0%

\* Percentages add up to greater than 100% as respondents can select all that apply.

For those who do not feed cows in an open field or pasture during winter, the top-three reasons identified were 1) start calving during the winter months, 2) the lack of a winter watering system on pasture and 3) limitations due to topography or soil type.

Respondents selected “other” reasons cited issues such as mud, inconsistent weather conditions, and pasture damage during the thaw cycle.

### Top Reasons for Not Feeding In-field or Pasture

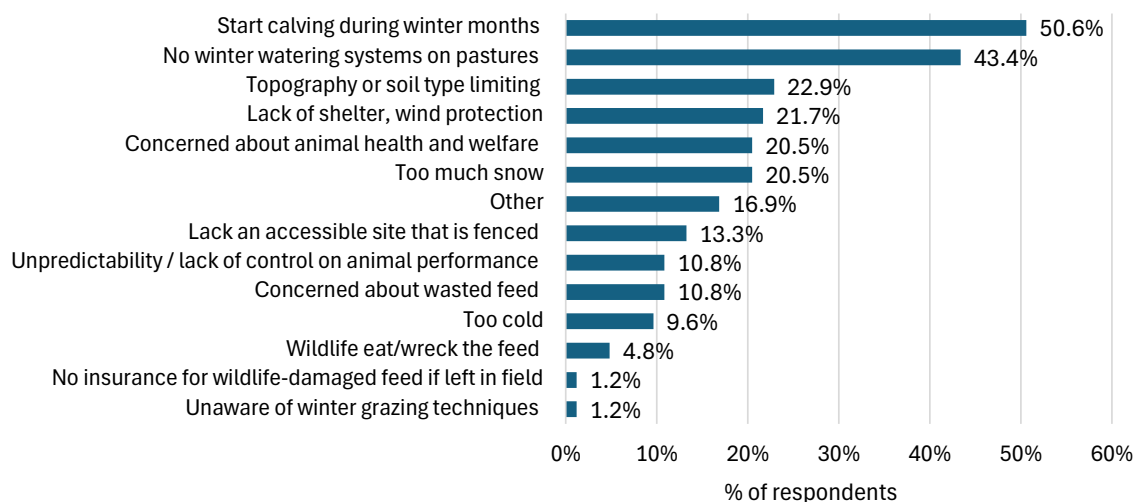


Figure 44. Top reasons for not feeding cows in open field or pasture during winter, Canada

Table 53. Top reasons for not feeding cows in open field or pasture during winter, by province

If do not feed cows in open field/pasture during winter, top 3 reasons why	Percent of respondents*						
	CAN (n=83)	BC** (n=6)	AB (n=9)	SK (n=9)	MB** (n=5)	ON (n=31)	QC&M (n=23)
Unaware of winter grazing techniques	1.2%	--	0.0%	0.0%	--	0.0%	4.3%
No insurance for wildlife-damaged feed if left in field	1.2%	--	0.0%	11.1%	--	0.0%	0.0%
Wildlife eat/wreck the feed	4.8%	--	0.0%	22.2%	--	0.0%	0.0%
Too cold	9.6%	--	11.1%	0.0%	--	3.2%	8.7%
Concerned about wasted feed	10.8%	--	0.0%	22.2%	--	9.7%	13.0%
Unpredictability or lack of control around animal performance	10.8%	--	22.2%	11.1%	--	6.5%	17.4%
Lack an accessible site that is fenced	13.3%	--	33.3%	11.1%	--	16.1%	4.3%
Too much snow	20.5%	--	0.0%	33.3%	--	12.9%	30.4%
Concerned about animal health and welfare	20.5%	--	22.2%	11.1%	--	16.1%	34.8%
Lack of shelter, wind protection	21.7%	--	11.1%	11.1%	--	38.7%	17.4%
Topography or soil type limiting	22.9%	--	22.2%	0.0%	--	35.5%	26.1%
No winter watering systems on pastures	43.4%	--	55.6%	66.7%	--	38.7%	34.8%
Start calving during winter months	50.6%	--	22.2%	44.4%	--	61.3%	52.2%
Other	16.9%	--	22.2%	11.1%	--	16.1%	13.0%

\* Percentages add up to greater than 100% as respondents can select up to three reasons.

\*\*BC and MB have too little data to present.

## 7.5 Forage Rejuvenation

Nationally, 37% of respondents reseeded their tame perennial forage stands less frequently than every 10 years, while 34.8% reseeded every six to 10 years, and 14.2% reseeded every one to five years. Fourteen per cent of respondents indicated that they never reseeded their tame perennial forage stands.

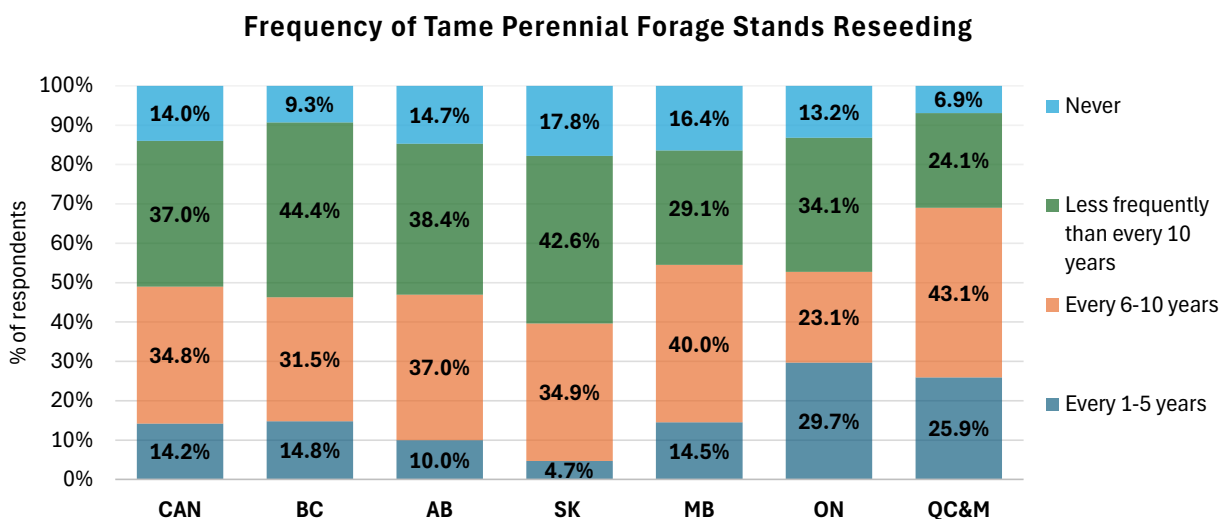


Figure 45. Frequency of reseeded tame perennial forage stands, by province

Table 54. Frequency of reseeded tame perennial forage stands, by province

In general, how often are your tame perennial forage stands reseeded?	Percent of respondents						
	CAN (n=598)	BC (n=54)	AB (n=211)	SK (n=129)	MB (n=55)	ON (n=91)	QC&M (n=58)
Every 1-5 years	14.2%	14.8%	10.0%	4.7%	14.5%	29.7%	25.9%
Every 6-10 years	34.8%	31.5%	37.0%	34.9%	40.0%	23.1%	43.1%
Less frequently than every 10 years	37.0%	44.4%	38.4%	42.6%	29.1%	34.1%	24.1%
Never	14.0%	9.3%	14.7%	17.8%	16.4%	13.2%	6.9%

Respondents who reseeded between every one to 10 years cited declining pasture productivity and the need for rejuvenation as the top reasons for their reseeded practices. Producers who reseeded less frequently than every ten years or who have never reseeded indicated that they maintain pasture productivity through effective grazing management.

Table 55. Top 3 Reasons why reseeding is done this way, Canada

Top 3 Reasons why reseeding is done this way	Percent (by sub-sample)
<b>Every 1-5 years (n=85)</b>	
Pasture productivity gets too low and rejuvenation is required	61.2%
High productivity is required due to land values	32.9%
Establishing a good stand has a high probability of establishing a good stand	31.7%
<b>Every 6-10 years (n=206)</b>	
Pasture productivity gets too low and rejuvenation is required	65.0%
The percentage of legumes in the stand has declined, reducing gains on cattle	40.8%
High productivity is required due to land values	30.6%
<b>Less frequently than every 10 years (n=219)</b>	
Pasture productivity can be maintained through grazing management	52.5%
Pasture productivity gets too low and rejuvenation is required	43.8%
The percentage of legumes in the stand has declined, reducing gains on cattle	32.0%
<b>Never (n=63)</b>	
Pasture productivity can be maintained through grazing management	57.1%
Other	30.2%
I'm not concerned about my pasture productivity	28.6%

# SECTION 8: ANIMAL HEALTH MANAGEMENT PRACTICES

## 8.1 Vaccination

Vaccination has been a proven tool for disease prevention for many years and because it is virtually impossible to keep our herds closed and unexposed to some diseases, vaccines are a very important component of our biosecurity programs. Many of the diseases we vaccinate beef cattle for can have devastating economic consequences in terms of treatment costs, mortality and especially in terms of reproductive losses. The primary motivation reported by beef producers for using vaccines is to prevent a wreck, even if they had no issue in the past.

Vaccination requirements vary by region and by farm as production and management practices can increase or decrease the amount of risk cattle are exposed to. In general, vaccinating breeding females for reproductive disease and vaccinating calves for respiratory disease is recommended. (BCRC, Adoption Rates of Recommended Practices by Cow-Calf Operators in Canada, 2019)

Nationally, the vast majority (94%) of respondents did vaccinate their cattle and 68.2% of respondents vaccinated their female cattle pre-calving in the last 12 months.

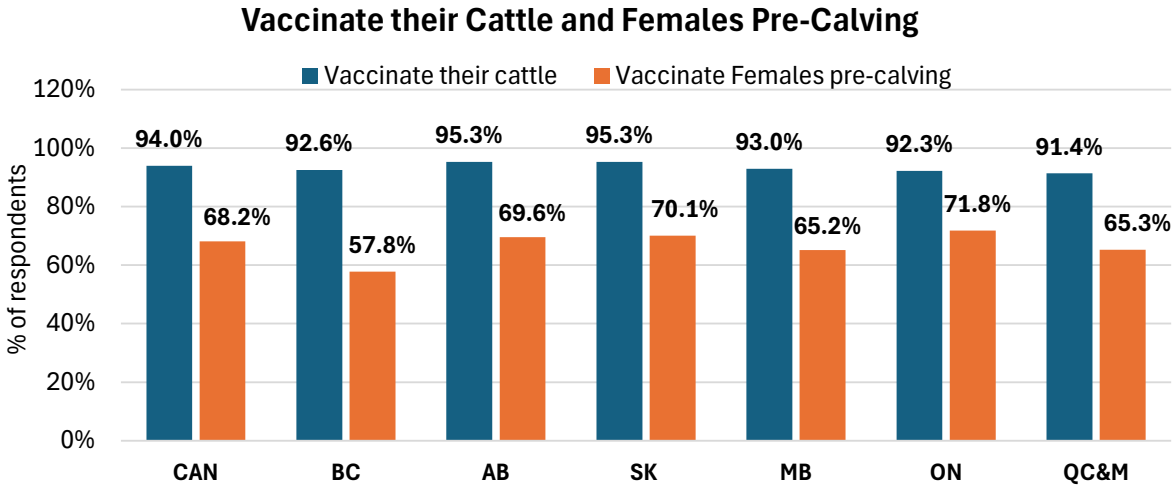


Figure 46. Percentage of respondents who vaccinate their cattle and females pre-calving, by province

Table 56. Percentage of respondents who vaccinate their cattle and females pre-calving, by province

In the last 12 months, did you vaccinate any of your cattle?		Percent of respondents						
	CAN (n=600)	BC (n=54)	AB (n=211)	SK (n=129)	MB (n=57)	ON (n=91)	QC&M (n=58)	
Yes	94.0%	92.6%	95.3%	95.3%	93.0%	92.3%	91.4%	
No	6.0%	7.4%	4.7%	4.7%	7.0%	7.7%	8.6%	
Do you typically vaccinate your females pre-calving?		CAN (n=509)	BC (n=45)	AB (n=181)	SK (n=117)	MB (n=46)	ON (n=71)	QC&M (n=49)
Yes	68.2%	57.8%	69.6%	70.1%	65.2%	71.8%	65.3%	
No	31.8%	42.2%	30.4%	29.9%	34.8%	28.2%	34.7%	

For 7, 8, or 9-way vaccinations targeting Clostridial diseases, the highest compliance was observed in calves (cited by 84.7% of respondents). Vaccination against reproductive diseases was most prevalent among cows (69.3%) and replacement heifers (71.8%). Bovine Respiratory Disease vaccinations were highly adopted across all categories, with calves showing the highest rate at 73.4%. Scours vaccinations and Vibrio/Lepto were less common overall compared to other vaccines.

### Type of Vaccinations and Type of Animal to Receive It

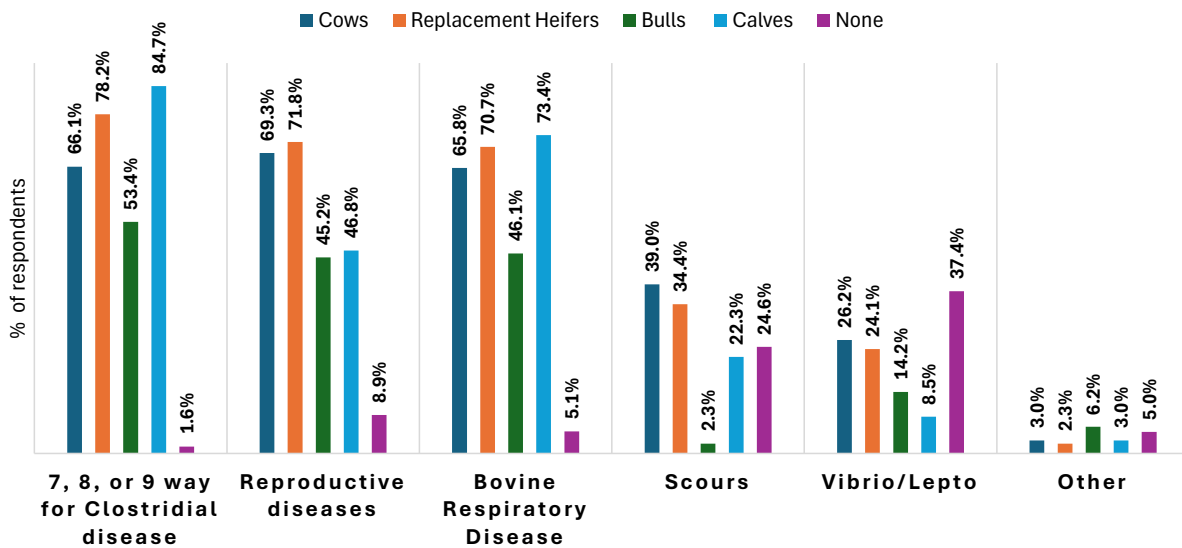


Figure 47. Percentage of respondents vaccinated their herds against various diseases, Canada

Table 57. Percentage of respondents vaccinated their herds against various diseases, Canada

12-month vaccinations		Percent of respondents					
	CAN (n=530)	BC (n=47)	AB (n=198)	SK (n=120)	MB (n=50)	ON (n=77)	QC&M (n=38)
<b>7, 8, or 9 Way for Clostridial Disease</b>							
Cows	66.1%	76.6%	81.3%	64.2%	72.0%	61.0%	42.1%
Replacement Heifers	78.2%	91.5%	80.8%	84.2%	92.0%	67.5%	76.3%
Bulls	53.4%	63.8%	64.1%	45.8%	62.0%	53.2%	44.7%
Calves	84.7%	70.2%	92.4%	92.5%	88.0%	85.7%	81.6%
None	1.6%	-	1.0%	-	-	6.5%	-
<b>Reproductive Diseases</b>							
Cows	69.3%	76.6%	73.7%	71.7%	80.0%	80.5%	55.2%
Replacement Heifers	71.8%	74.5%	73.7%	83.3%	80.0%	75.3%	68.4%
Bulls	45.2%	55.3%	47.0%	45.0%	56.0%	53.2%	42.1%
Calves	46.8%	42.6%	50.5%	54.2%	48.0%	57.1%	52.6%
None	8.9%	6.4%	9.6%	0.8%	8.0%	5.2%	21.1%
<b>Bovine Respiratory Disease</b>							
Cows	65.8%	74.5%	72.7%	60.0%	68.0%	75.3%	73.7%
Replacement Heifers	70.7%	80.9%	76.8%	69.2%	80.0%	70.1%	84.2%
Bulls	46.1%	55.3%	48.0%	36.7%	46.0%	55.8%	63.2%
Calves	73.4%	87.2%	77.3%	71.7%	68.0%	58.4%	92.1%
None	5.1%	2.1%	4.5%	7.5%	6.0%	5.2%	7.9%
<b>Scours</b>							
Cows	39.0%	48.9%	41.9%	38.3%	50.0%	42.9%	26.3%
Replacement Heifers	34.4%	42.6%	39.4%	34.2%	42.0%	35.1%	21.1%
Bulls	2.3%	4.2%	2.5%	-	2.0%	3.9%	2.6%
Calves	22.3%	29.8%	21.7%	13.3%	26.0%	35.1%	36.8%
None	24.6%	21.3%	25.3%	33.3%	20.0%	19.5%	36.8%
<b>Vibrio/Lepto</b>							
Cows	26.2%	25.5%	24.7%	23.3%	24.0%	53.2%	15.8%
Replacement Heifers	24.1%	25.5%	20.7%	23.3%	26.0%	46.8%	15.8%
Bulls	14.2%	14.9%	15.2%	12.5%	14.0%	23.4%	7.9%
Calves	8.5%	14.9%	8.6%	3.3%	10.0%	14.3%	10.5%
None	37.5%	36.2%	42.4%	0.0%	40.0%	26.0%	50.0%
<b>Other</b>							
Cows	3.0%	4.2%	2.0%	4.2%	4.0%	3.9%	2.6%
Replacement Heifers	2.3%	2.1%	1.0%	4.2%	2.0%	3.9%	2.6%
Bulls	6.2%	10.6%	6.6%	6.7%	8.0%	3.9%	5.2%
Calves	3.0%	2.1%	2.5%	5.0%	4.0%	3.9%	7.9%
None	5.0%	0.0%	6.1%	0.0%	8.0%	2.6%	5.2%

Within the small sub-group of respondents (n=35) who did not vaccinate their breeding females for reproductive disease, 34.3% of respondents cited having a closed herd as their reason, while 28.6% are satisfied with their conception rates and saw no need to vaccinate. Other barriers included the



lack of facilities (5.7%), lack of labor (5.7%), the expense of vaccination (2.9%), and unavailability of a veterinarian to develop a Herd Health Program (2.9%). Additionally, 20% mentioned “other” reasons including lack of previous issues, observing better results without vaccination and distrust in vaccine companies.

### Top Reasons for Not Vaccinating Breeding Females for Reproductive Disease

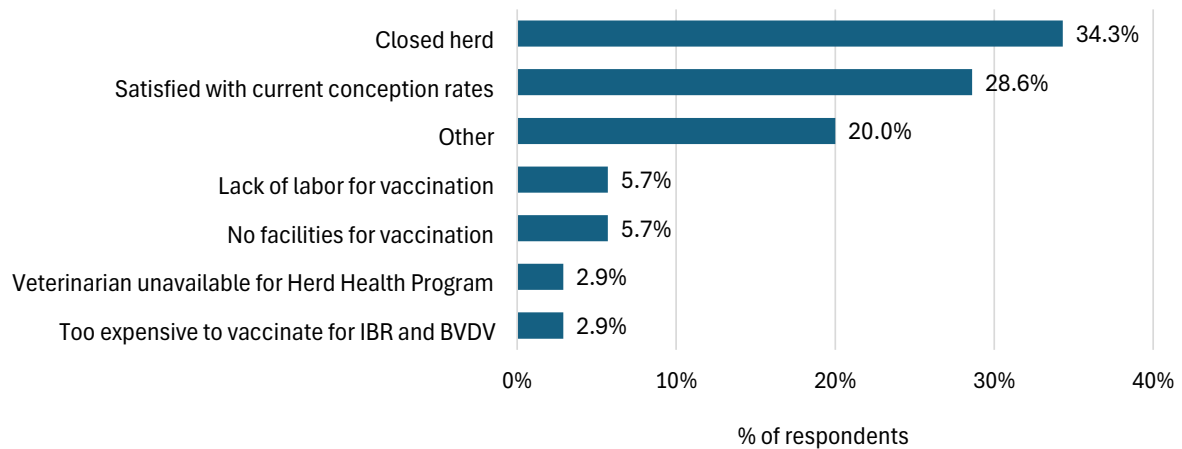


Figure 48. Top reason for not vaccinating breeding females for reproductive disease in the past 12 months, Canada

Table 58. Top reason for not vaccinating breeding females for reproductive disease, by province

If you did not vaccinate your breeding females for reproductive disease in the last 12 months, top reason why	Percent						
	CAN (n=35)	BC (n=4)	AB (n=10)	SK (n=6)	MB (n=4)	ON (n=7)	QC&M (n=4)
It is too expensive to vaccinate for reproductive diseases like IBR and BVDV	2.9%	0.0%	0.0%	16.7%	0.0%	0.0%	0.0%
Veterinarian was unavailable to develop Herd Health Program	2.9%	0.0%	10.0%	0.0%	0.0%	0.0%	0.0%
I don't have the facilities to vaccinate	5.7%	25.0%	0.0%	16.7%	0.0%	0.0%	0.0%
I don't have the labour to vaccinate	5.7%	0.0%	0.0%	16.7%	0.0%	14.3%	0.0%
I'm happy with my conception rates, so I see no need to vaccinate	28.6%	0.0%	10.0%	33.3%	75.0%	28.6%	50.0%
I have a closed herd	34.3%	75.0%	40.0%	0.0%	25.0%	42.9%	25.0%
Other	20.0%	0.0%	40.0%	16.7%	0.0%	14.3%	25.0%

Within a small sub-group of respondents who did not vaccinate their 2023-born calves for bovine respiratory disease, 35.5% of respondents cited having a closed herd as their reason, while 29% think their calves are healthy and saw no need to vaccinate. Other barriers included marketing or selling calves right after weaning (9.7%), lack of labour or facilities (6.5%), unavailability of a veterinarian to develop a herd health program (3.2%) and too expensive (3.2%). Additionally, 19.4% mentioned other reasons including lack of previous issues, and perceived observation of better results without vaccination.

### Top Reasons for Not Vaccinating Calves for Bovine Respiratory Disease

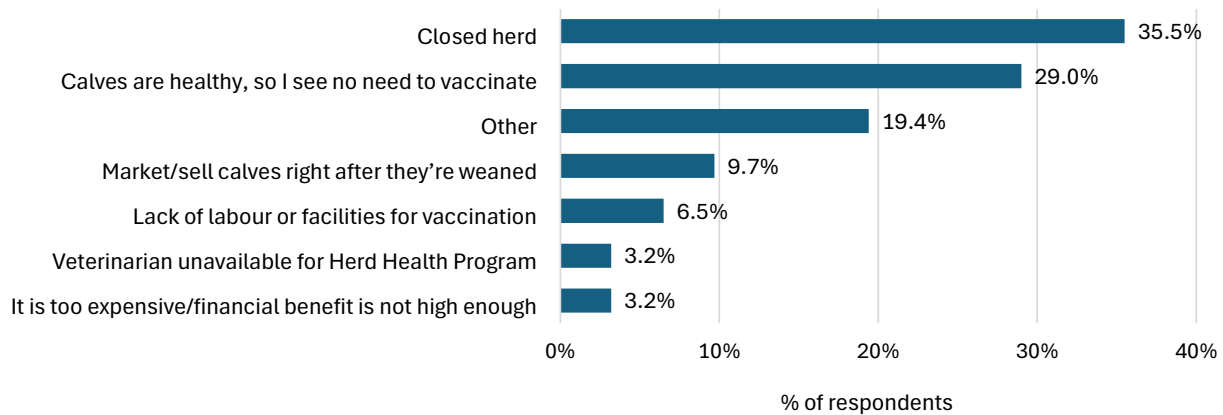


Figure 49. Top reason for not vaccinating calves for bovine respiratory disease, Canada

Table 59. Top reason for not vaccinating calves for bovine respiratory disease, by province

If you did not vaccinate your 2023-born calves for bovine respiratory disease, top reason why	Percent of respondents						
	CAN (n=31)	BC (n=4)	AB (n=8)	SK (n=6)	MB (n=4)	ON (n=6)	QC&M (n=3)
It is too expensive/financial benefit is not high enough	3.2%	0.0%	12.5%	0.0%	0.0%	0.0%	0.0%
Veterinarian was unavailable to develop a Herd Health program	3.2%	0.0%	12.5%	0.0%	0.0%	0.0%	0.0%
I do not have labour/facilities to vaccinate	6.5%	0.0%	0.0%	16.7%	0.0%	16.7%	0.0%
I market/sell my calves right after they're weaned	9.7%	0.0%	0.0%	16.7%	25.0%	16.7%	0.0%
My calves are healthy, so I see no need to vaccinate	29.0%	25.0%	25.0%	33.3%	25.0%	0.0%	100.0%
I have a closed herd	35.5%	50.0%	37.5%	16.7%	50.0%	50.0%	0.0%
Other	19.4%	25.0%	0.0%	16.7%	0.0%	16.7%	0.0%

## 8.2 Remote Drug Delivery

Nationally, 63.3% of respondents did not use a remote drug delivery device (RDDD) for treatment; while 14.5% used it fewer than five times a year, 9.8% used it five to ten times a year, and 6.5% used it 11 to 20 times a year. The adoption rate of remote drug delivery devices was higher in the prairie provinces, compared to the rest of the country.

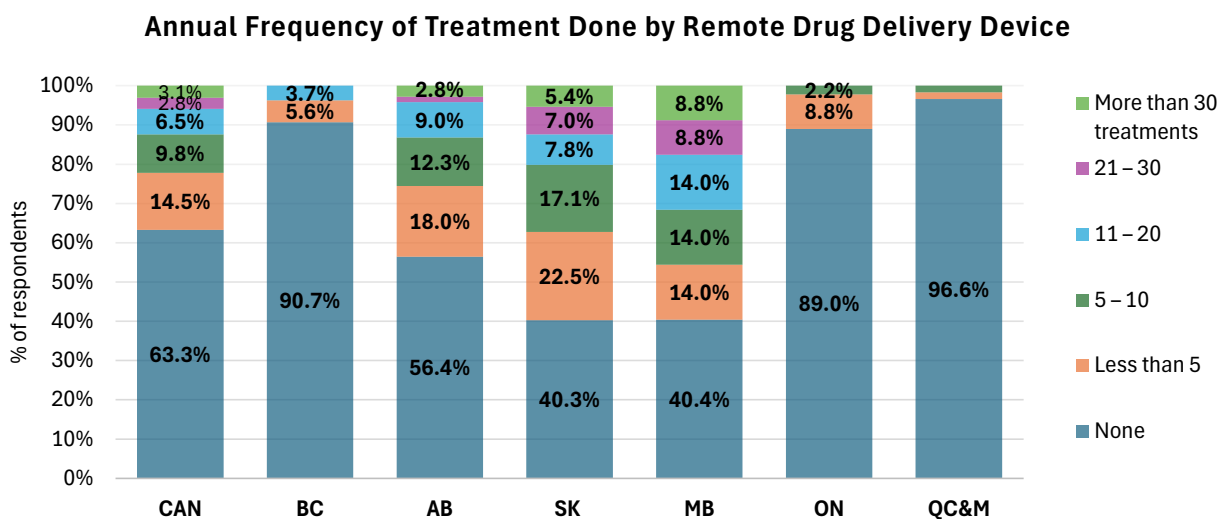


Figure 50. Number of treatments using remote drug delivery devices, by province

Table 60. Number of treatments using remote drug delivery devices, by province

Treatments in a year using an RDDD	Percent of respondents						
	CAN (n=600)	BC (n=54)	AB (n=211)	SK (n=129)	MB (n=57)	ON (n=91)	QC&M (n=58)
<b>None</b>	63.3%	90.7%	56.4%	40.3%	40.4%	89.0%	96.6%
<b>Less than 5</b>	14.5%	5.6%	18.0%	22.5%	14.0%	8.8%	1.7%
<b>5 – 10</b>	9.8%	0%	12.3%	17.1%	14.0%	2.2%	1.7%
<b>11 – 20</b>	6.5%	3.7%	9.0%	7.8%	14.0%	0%	0%
<b>21 – 30</b>	2.8%	0%	1.4%	7.0%	8.8%	0%	0%
<b>More than 30 treatments</b>	3.1%	0%	2.8%	5.4%	8.8%	0%	0%

For those who used a RDDD for treatment, it was used predominantly for treating foot rot, septic arthritis, or lameness, as reported by 94.4% of respondents. Pinkeye and eye infections was the next most common condition treated with a RDDD at 49.1%. Pneumonia and Bovine Respiratory Disease (BRD) followed closely, with 41.7% of respondents using remote delivery for these conditions. Usage rates were lower for sedation prior to handling for treatment (4.2%), mastitis (2.3%), and diarrhea (1.4%).

### Conditions where Remote Drug Delivery Device is Used

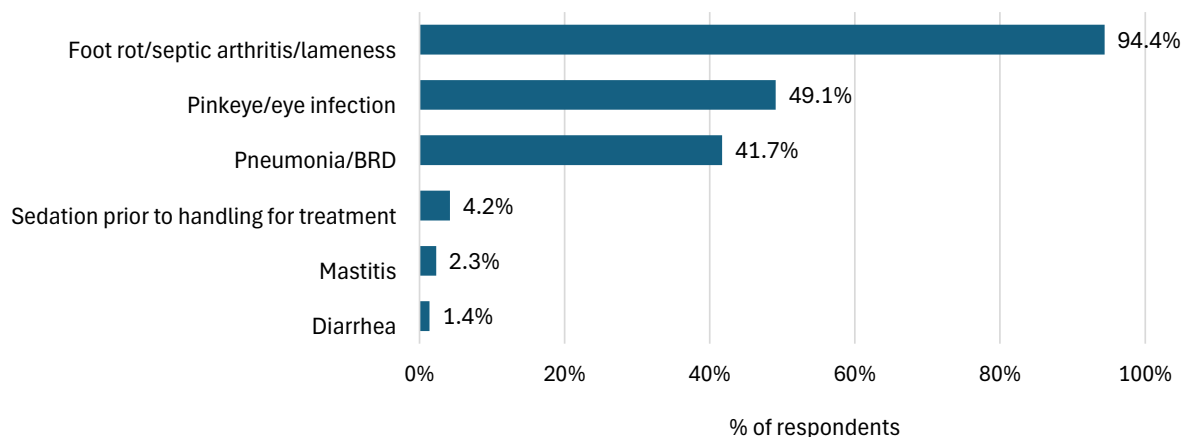


Figure 51. Remote drug delivery device used to treat which conditions, Canada

Table 61. Remote drug delivery device used to treat which conditions, by province

For what conditions? (select all that apply)	Percent of respondents*						
	CAN (n=216)	BC (n=5)	AB (n=89)	SK (n=77)	MB (n=34)	ON (n=10)	QC&M (n=1)**
Diarrhea	1.4%	20.0%	1.1%	1.3%	0.0%	0.0%	--
Mastitis	2.3%	0.0%	2.2%	1.3%	5.9%	0.0%	--
Sedation prior to handling for treatment	4.2%	20.0%	5.6%	2.6%	2.9%	0.0%	--
Pneumonia/BRD	41.7%	20.0%	46.1%	46.8%	32.4%	10.0%	--
Pinkeye/eye infection	49.1%	40.0%	48.3%	42.9%	76.5%	20.0%	--
Foot rot/septic arthritis/lameness	94.4%	80.0%	94.4%	97.4%	94.1%	80.0%	--

\* Percentages add up to greater than 100% as respondents can select all that apply.

\*\*QC & M has too little data to present

### 8.3 Parasite Control

The majority (87.1%) of respondents reported using both external and internal parasite control on their herds. External parasite control alone was used by 36.6% of respondents, while 26.6% used internal parasite control only. A small percentage (1.5%) were unsure about the type of parasite control used, and 5.7% did not use any parasite control measures at all.

## Use of Parasite Control

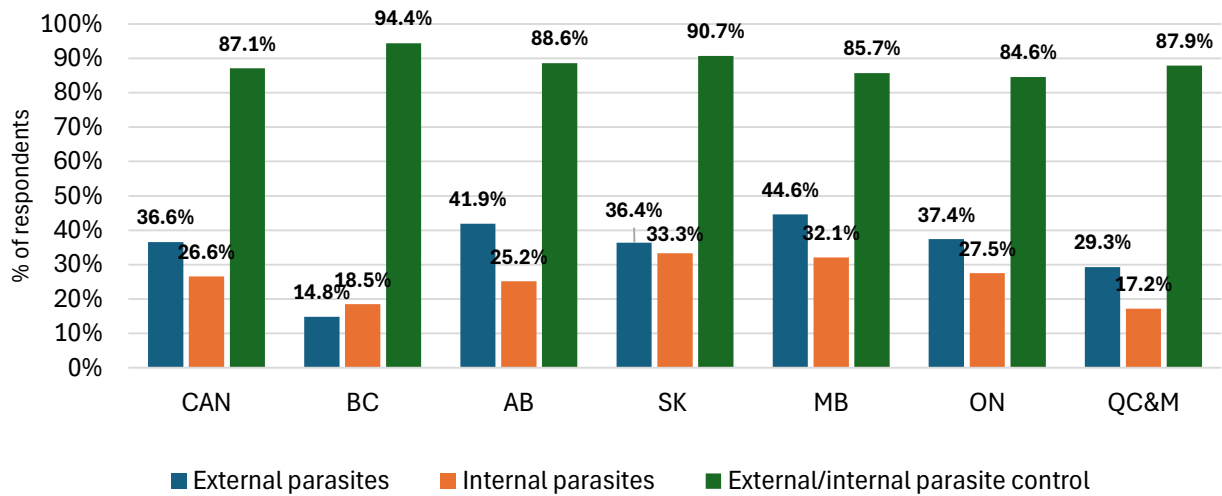


Figure 52. Proportion of respondents using parasite control, by province

Table 62. Proportion of respondents using parasite control, by province

Do you typically use any of the following parasite control on your herd? (select all that apply)	Percent of respondents*						
	CAN (n=598)	BC (n=54)	AB (n=210)	SK (n=129)	MB (n=56)	ON (n=91)	QC&M (n=58)
External parasites	36.6%	14.8%	41.9%	36.4%	44.6%	37.4%	29.3%
Internal parasites	26.6%	18.5%	25.2%	33.3%	32.1%	27.5%	17.2%
External/internal parasite control	87.1%	94.4%	88.6%	90.7%	85.7%	84.6%	87.9%
Not sure	1.5%	1.9%	3.7%	2.3%	0.0%	1.1%	0.0%
No, don't use parasite control	5.7%	1.9%	8.3%	7.0%	7.1%	8.8%	5.2%

\* Percentages add up to greater than 100% as respondents can select all that apply.

For those who use parasite control, the most common times for application were in the fall (36.1%) and winter (35.8%). Before spring turnout onto grass was reported by 24.7% of respondents. Summer was the least common period for parasite control application, with only 3.4% of respondents choosing this time.

### Typical Season for Parasite Control

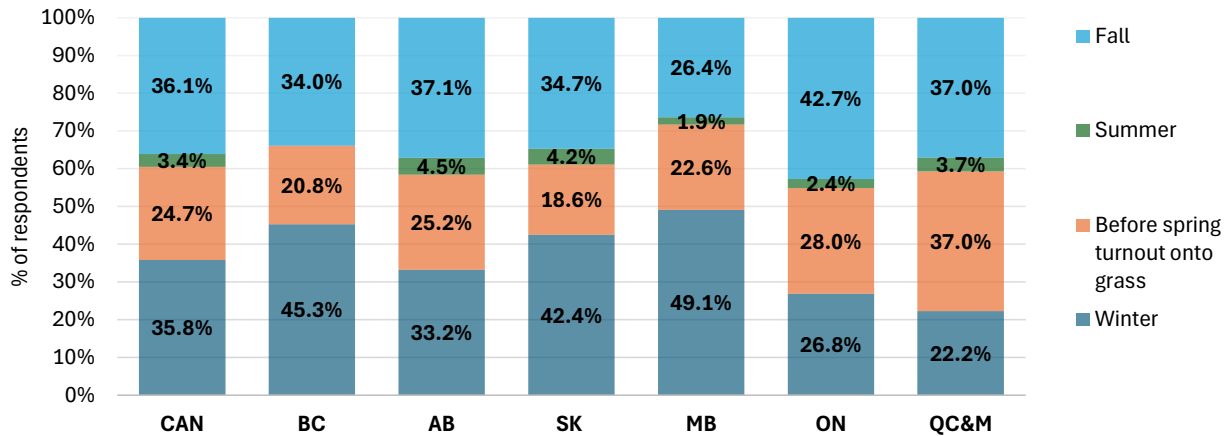


Figure 53. Parasite control application time, by province

Table 63. Parasite control application time, by province

When do you typically apply the above parasite control?	Percent of respondents						
	CAN (n=562)	BC (n=53)	AB (n=202)	SK (n=118)	MB (n=53)	ON (n=82)	QC&M (n=54)
Winter	35.8%	45.3%	33.2%	42.4%	49.1%	26.8%	22.2%
Before spring turnout onto grass	24.7%	20.8%	25.2%	18.6%	22.6%	28.0%	37.0%
Summer	3.4%	0%	4.5%	4.2%	1.9%	2.4%	3.7%
Fall	36.1%	34.0%	37.1%	34.7%	26.4%	42.7%	37.0%

Just over half (52.4%) of respondents who used parasite control reported that they tend to use the same product for parasite control; while 47.2% indicated that they use alternate products as part of their strategy.

### Type of Products for Parasite Control

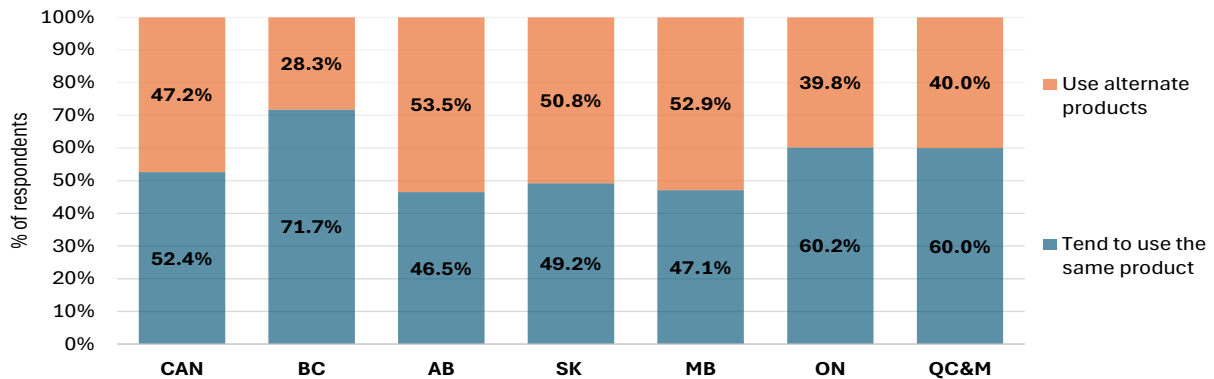


Figure 54. Type of products for parasite control, by province

Table 64. Type of products for parasite control, by province

Parasite control strategy	Percent						
	CAN (n=562)	BC (n=53)	AB (n=202)	SK (n=118)	MB (n=51)	ON (n=83)	QC&M (n=55)
Tend to use the same product	52.4%	71.7%	46.5%	49.2%	47.1%	60.2%	60.0%
Use alternate products	47.2%	28.3%	53.5%	50.8%	52.9%	39.8%	40.0%

For the small sub-group of respondents who did not use parasite control, the most cited reasons included resistance concerns (19.4%), organic production (19.4%), expense or perceived financial benefit (17.0%), concerns about product effectiveness (11.1%). Additionally, 33% of respondents mentioned other reasons predominantly related to concerns about soil microbe health.

Top Reason for Not Using Parasite Control

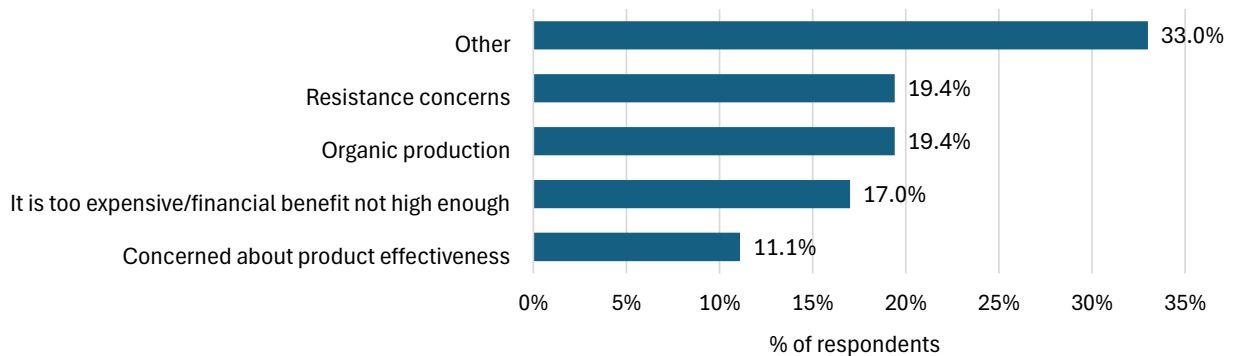


Figure 55. Top reason for not using parasite control, by province

Table 65. Top reason for not using parasite control, by province

If do not use parasite control, top reason why	Percent of respondents						
	CAN (n=36)	BC* (n=1)	AB (n=9)	SK (n=11)	MB* (n=4)	ON (n=8)	QC&M* (n=3)
Concerned about product effectiveness	11.1%	--	0.0%	27.3%	--	0.0%	--
It is too expensive/financial benefit not high enough	17.0%	--	0.0%	27.3%	--	25.0%	--
Organic production	19.4%	--	11.1%	0.0%	--	50.0%	--
Resistance concerns	19.4%	--	22.2%	9.1%	--	12.5%	--
Other	33.0%	--	66.7%	36.4%	--	12.5%	--

\*\*BC, MB and QC & M has too little data to present.

## 8.4 Mineral Supplementation

The majority (83.5%) of respondents provide mineral and vitamin supplementation to their cows year-round, 20% provide supplementation during calving season, 11.3% while cows are on summer pasture, 15.7% during breeding season, and 23.7% during winter feeding season. A small percentage

(1.2%) supplement at other times, such as pre-calving, pre-weaning, fall pasture, or different formulations at different times.

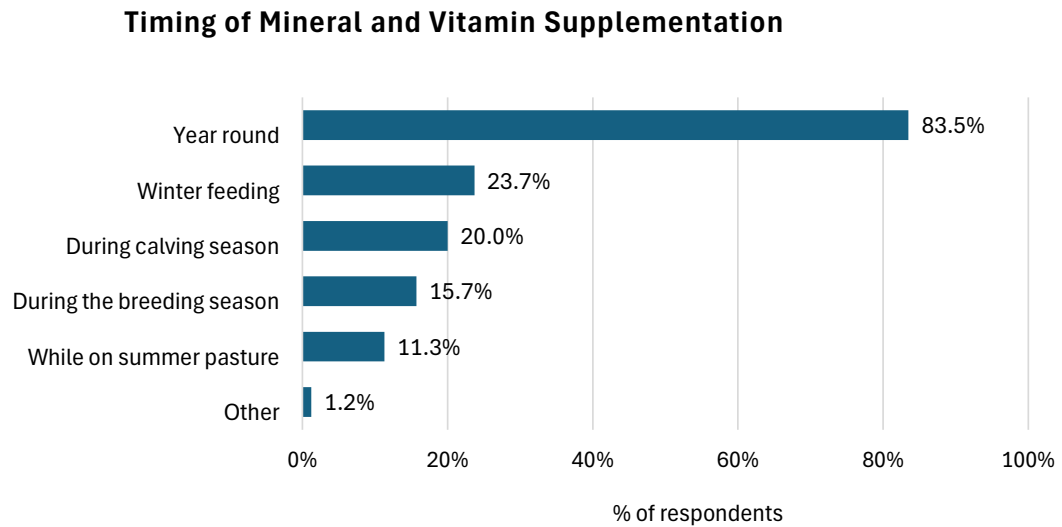


Figure 56. Timing of mineral or vitamin supplementation on cows, Canada

Table 66. Timing of mineral or vitamin supplementation on cows, by province

Minerals or vitamins to cows in any of the following time periods (select all that apply)	Percent of respondents*						
	CAN (n=600)	BC (n=54)	AB (n=211)	SK (n=129)	MB (n=57)	ON (n=91)	QC&M (n=53)
Year round	83.5%	64.8%	83.9%	82.9%	86.0%	91.2%	86.2%
During calving season	20.0%	24.1%	23.7%	13.2%	22.8%	15.4%	22.4%
While on summer pasture	11.3%	7.4%	11.4%	8.5%	15.8%	11.0%	17.2%
During the breeding season	15.7%	20.4%	10.9%	11.6%	17.5%	15.4%	12.1%
Winter feeding	23.7%	38.9%	24.6%	20.2%	24.6%	16.5%	15.4%
Other	1.2%	1.9%	1.9%	0.0%	1.8%	0.0%	0.0%

\* Percentages add up to greater than 100% as respondents can select all that apply.

The majority (88.8%) of respondents provide minerals and vitamin supplements ad libitum, allowing cows to consume them freely. Additionally, 23.1% incorporate these nutrients as part of a total mixed ration. Some respondents (12.2%) measure and provide specific amounts of supplements, while a smaller percentage use injectable method (5.9%). Boluses are the least common method, used by only 0.3% of respondents.



### Method of Providing Minerals and Vitamins

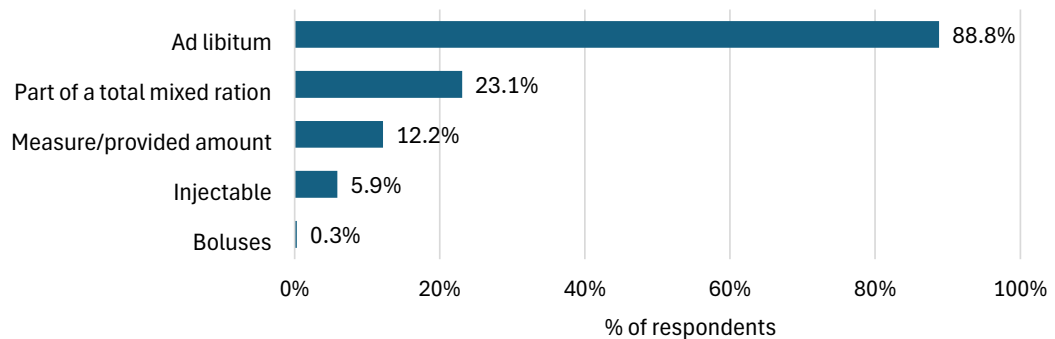


Figure 57. Method of providing minerals and vitamins, Canada

Table 67. Method of providing minerals and vitamins, by province

How do you provide vitamins/minerals? (select all that apply)	Percent of respondents*						
	CAN (n=597)	BC (n=54)	AB (n=210)	SK (n=128)	MB (n=56)	ON (n=91)	QC&M (n=58)
Ad libitum	88.8%	92.6%	88.6%	88.3%	83.9%	89.0%	91.4%
Measure/provided amount	12.2%	7.4%	10.5%	18.0%	16.1%	3.3%	20.7%
Part of a total mixed ration	23.1%	14.8%	26.7%	28.9%	33.9%	15.4%	6.9%
Injectable	5.9%	5.6%	5.2%	4.7%	8.9%	5.5%	5.2%
Boluses	0.3%	0.0%	0.0%	0.0%	3.5%	0.0%	0.0%

\* Percentages add up to greater than 100% as respondents can select all that apply.

Chelated minerals are minerals bound to organic molecules to enhance absorption, often claimed to improve bioavailability in supplements. Among respondents who provide mineral supplementation to their cows, 44.7% indicated that their mineral formulations are chelated, while 55.3% indicated that they are not.

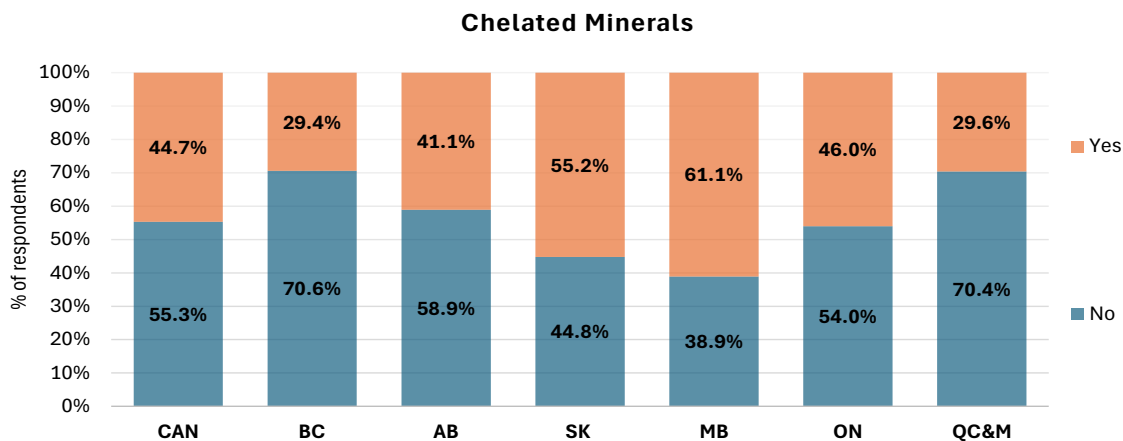


Figure 58. Percentage of respondent who use chelated minerals, by province

Table 68. Percentage of respondent who use chelated minerals, by province

Are any of your mineral formulations chelated?	Percent of respondents						
	CAN (n=573)	BC (n=51)	AB (n=202)	SK (n=129)	MB (n=54)	ON (n=87)	QC&M (n=54)
No	55.3%	70.6%	58.9%	44.8%	38.9%	54.0%	70.4%
Yes	44.7%	29.4%	41.1%	55.2%	61.1%	46.0%	29.6%

## 8.5 Veterinary Communication

The majority (58.2%) of respondents interact with a veterinarian on purchasing antibiotics, vaccines or supplies two to five times annually, while 37.3% seek consultation two to five times for emergency animal health or calving issues.

For pregnancy checking, 49.9% consult once a year, 25% consult two to five times, and 24.4% do not seek consultation. Bull soundness evaluations prompt 53.1% to consult once a year, 13.9% two to five times, and 32.5% do not consult.

Consultations for herd health programs occur with 34.8% once a year, 37.2% two to five times, and 24.1% without consultation.

Interest in learning best management practices varies: 27.9% consult once a year, 31% two to five times, and 36% do not seek advice. Regarding scientific information and innovations, 26.1% consult once a year, 21.6% two to five times, and 50.7% do not seek advice from a veterinarian.

Table 69. Frequency of veterinarian communication for various reasons

In the last 12 months, how many times did you meet/correspond with a veterinarian about the following	Percent of Respondents						
	CAN (n=581)	BC (n=53)	AB (n=203)	SK (n=124)	MB (n=55)	ON (n=90)	QC&M (n=56)
<b>Purchase antibiotics, vaccines, or other supplies</b>							
None	3.8%	3.8%	4.5%	2.4%	1.9%	4.4%	5.4%
Once	8.3%	13.3%	5.9%	6.5%	9.1%	5.6%	19.7%
2-5 times	58.2%	58.5%	58.1%	63.7%	50.9%	63.3%	44.6%
6-10 times	20.4%	20.8%	23.6%	15.3%	25.5%	18.9%	16.0%
11-20 times	7.5%	3.8%	5.9%	9.7%	10.9%	5.6%	12.5%
More than 20 times	1.9%	0.0%	2.0%	2.4%	1.9%	2.2%	1.8%
<b>Emergency animal health or calving problem</b>							
None	28.8%	33.3%	28.8%	27.1%	22.7%	34.5%	24.7%
Once	29.9%	39.6%	28.8%	28.9%	28.3%	29.9%	28.6%
2-5 times	37.3%	22.9%	38.6%	42.4%	43.5%	33.4%	34.2%
6-10 times	3.3%	2.1%	3.0%	1.7%	3.8%	1.2%	11.4%
11-20 times	0.8%	2.1%	0.5%	0.0%	1.9%	1.2%	0.0%

More than 20 times	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<b>Pregnancy checking</b>							
	<b>CAN (n=545)</b>	<b>BC (n=50)</b>	<b>AB (n=192)</b>	<b>SK (n=116)</b>	<b>MB (n=50)</b>	<b>ON (n=84)</b>	<b>QC&amp;M (n=53)</b>
None	24.4%	40.0%	22.4%	19.8%	12.0%	35.8%	20.8%
Once	49.9%	46.0%	56.8%	51.7%	50.1%	38.1%	43.4%
2-5 times	25.0%	14.0%	20.9%	25.9%	38.0%	25.0%	35.9%
6-10 times	0.6%	0.0%	0.0%	1.8%	0.0%	1.2%	0.0%
11-20 times	0.2%	0.0%	0.0%	0.9%	0.0%	0.0%	0.0%
More than 20 times	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<b>Bull soundness evaluations</b>							
	<b>CAN (n=548)</b>	<b>BC (n=47)</b>	<b>AB (n=199)</b>	<b>SK (n=121)</b>	<b>MB (n=52)</b>	<b>ON (n=80)</b>	<b>QC&amp;M (n=49)</b>
None	32.5%	44.7%	18.1%	18.2%	19.2%	70.0%	67.3%
Once	53.1%	49.0%	63.8%	63.6%	61.5%	21.3%	30.7%
2-5 times	13.9%	4.3%	18.1%	18.2%	19.2%	6.3%	2.0%
6-10 times	0.2%	2.2%	0.0%	0.0%	0.0%	2.5%	0.0%
11-20 times	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
More than 20 times	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<b>Consultation/advice on Herd Health program</b>							
	<b>CAN (n=529)</b>	<b>BC (n=47)</b>	<b>AB (n=192)</b>	<b>SK (n=112)</b>	<b>MB (n=51)</b>	<b>ON (n=80)</b>	<b>QC&amp;M (n=48)</b>
None	24.1%	29.8%	22.4%	17.9%	15.6%	38.8%	25.0%
Once	34.8%	38.3%	30.8%	37.6%	50.9%	28.8%	33.3%
2-5 times	37.2%	32.0%	42.7%	41.1%	29.4%	26.3%	37.4%
6-10 times	2.6%	0.0%	3.1%	0.9%	2.0%	5.0%	4.1%
11-20 times	0.9%	0.0%	0.5%	1.8%	2.0%	1.3%	0.0%
More than 20 times	0.2%	0.0%	0.5%	0.9%	0.0%	0.0%	0.0%
<b>Questions/learning about best management practices</b>							
	<b>CAN (n=494)</b>	<b>BC (n=44)</b>	<b>AB (n=180)</b>	<b>SK (n=100)</b>	<b>MB (n=44)</b>	<b>ON (n=80)</b>	<b>QC&amp;M (n=46)</b>
None	36.2%	52.3%	35.1%	31.0%	31.9%	41.3%	32.6%
Once	27.9%	18.2%	28.4%	28.0%	31.9%	26.3%	34.8%
2-5 times	31.0%	29.6%	28.8%	38.1%	29.5%	30.0%	28.2%
6-10 times	4.0%	0.0%	7.3%	2.1%	4.5%	1.3%	4.3%
11-20 times	0.9%	0.0%	0.6%	1.0%	2.3%	1.3%	0.0%
More than 20 times	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<b>Questions/learning about scientific information, technologies, and innovations</b>							
	<b>CAN (n=459)</b>	<b>BC (n=41)</b>	<b>AB (n=165)</b>	<b>SK (n=92)</b>	<b>MB (n=42)</b>	<b>ON (n=76)</b>	<b>QC&amp;M (n=43)</b>
None	50.7%	58.5%	46.7%	47.8%	47.6%	54.0%	62.8%
Once	26.1%	17.1%	30.3%	30.4%	21.4%	23.7%	18.6%
2-5 times	21.6%	24.4%	20.6%	21.7%	28.6%	21.1%	16.3%
6-10 times	1.3%	0.0%	1.8%	0.0%	2.4%	1.3%	2.3%
11-20 times	0.3%	0.0%	0.6%	0.0%	0.0%	0.0%	0.0%
More than 20 times	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

# SECTION 9: TECHNOLOGY ADOPTION AND RECORD KEEPING

## 9.1 Equipment and Technology Adoption

The majority of respondents utilize handling systems (89.5%), watering systems (87.7%), electric fences (86.0%), and manual/hydraulic squeezes (83.8%). Automatic syringe/dosing guns are employed by 49% of respondents.

The adoption rates for polycrops, intra-nasal vaccines, ionophores, and weigh scales range between 30% and 40%. Technologies such as ultra-high frequency tags, remote water monitoring systems, electronic or Bluetooth-enabled RFID readers, total mixed rations, and DNA testing have adoption rates between 15% and 30%. Less than 10% of respondents use drones to monitor pasture and/or cattle, sexed semen, and virtual fencing.

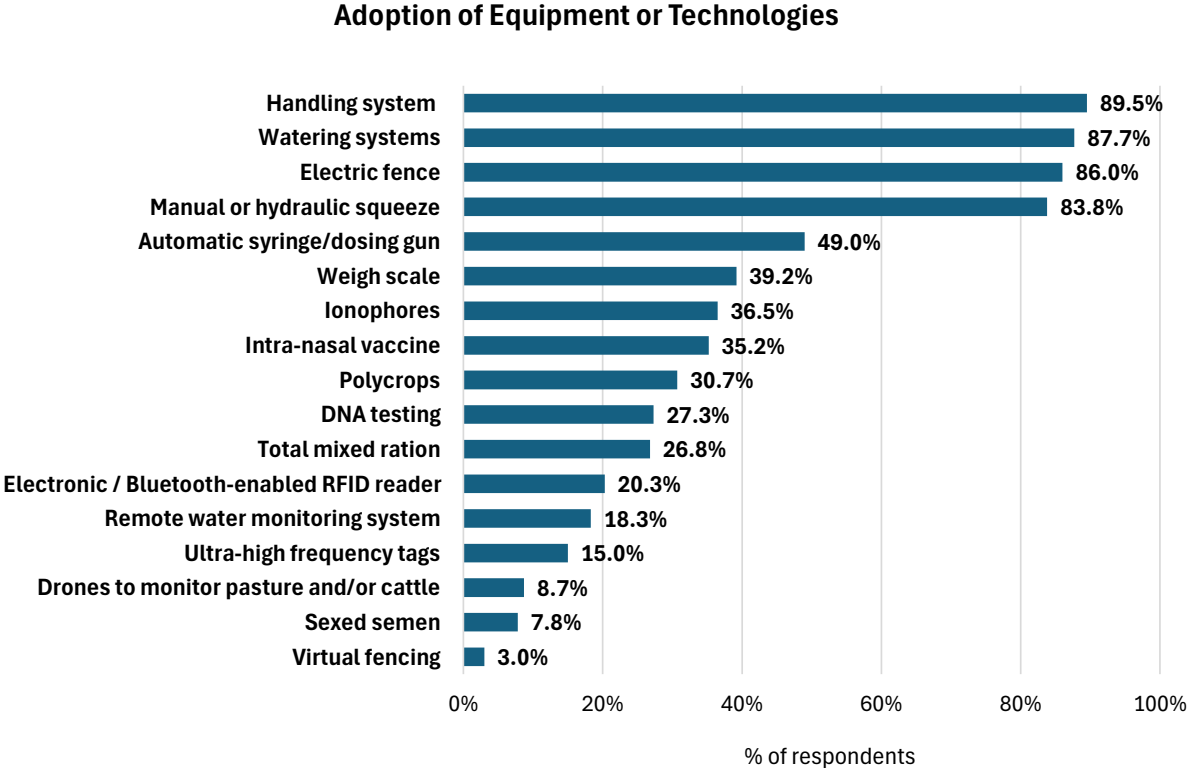


Figure 59. Equipment and/or technologies adopted on operations, Canada

Table 70. Equipment and/or technologies adopted on operations, by province

Equipment and technologies you have and use on your operation? (select all that apply)	Percent of respondents*						
	CAN (n=600)	BC (n=57)	AB (n=211)	SK (n=129)	MB (n=57)	ON (n=91)	QC&M (n=58)
Electronic and/or Bluetooth-enabled RFID reader	20.3%	20.4%	21.8%	23.3%	22.8%	8.8%	24.1%
Ultra-high frequency tags	15.0%	16.7%	18.0%	12.4%	14.0%	6.6%	22.4%
Weigh scale	39.2%	33.3%	41.2%	36.4%	28.1%	42.9%	48.3%
Manual or hydraulic squeeze	83.8%	92.6%	89.1%	87.6%	80.7%	72.5%	69.0%
Handling system	89.5%	96.3%	95.3%	92.2%	86.0%	80.2%	74.1%
Watering systems	87.7%	87.0%	89.1%	88.4%	93.0%	82.4%	84.5%
Remote water monitoring system	18.3%	14.8%	18.5%	29.5%	29.8%	4.4%	6.9%
Electric fence	86.0%	77.8%	82.5%	82.2%	89.5%	95.6%	96.6%
Virtual fencing	3.0%	1.9%	3.3%	2.3%	3.5%	2.2%	5.2%
Automatic syringe/dosing gun	49.0%	46.3%	52.1%	53.5%	64.9%	34.1%	37.9%
Intra-nasal vaccine	35.2%	24.1%	37.9%	28.7%	36.8%	45.1%	32.8%
Drones to monitor pasture and/or cattle	8.7%	5.6%	10.9%	9.3%	12.3%	2.2%	8.6%
DNA testing	27.3%	18.5%	29.4%	23.3%	19.3%	37.4%	29.3%
Sexed semen	7.8%	1.9%	7.1%	3.1%	3.5%	15.4%	19.0%
Polycrops	30.7%	18.5%	33.6%	26.4%	47.4%	25.3%	32.8%
Total mixed ration	26.8%	13.0%	34.6%	31.8%	31.6%	16.5%	12.1%
Ionophores	36.5%	29.6%	39.8%	43.4%	40.5%	33.0%	17.2%

\* Percentages add up to 100% as respondents can select all that apply.

## 9.2 Record Keeping

The majority of respondents (79.2%) rely on paper records for their record-keeping. Nearly half of the respondents (47.8%) use spreadsheets, while 20.7% employ accounting software. Electronic cattle management software was utilized by 17.8% of respondents. A small percentage (4.7%) use “other” methods such as purebred association registry and cell phone apps. Only 1.2% of respondents do not keep records at all.

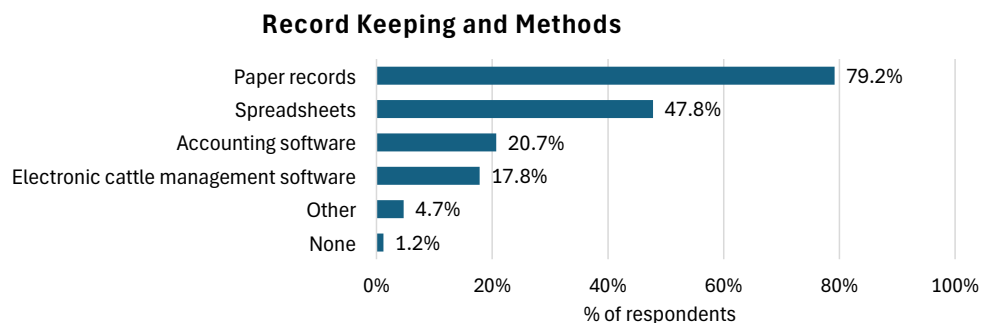


Figure 60. Record keeping and methods, by province

Table 71. Record keeping and methods, by province

What record-keeping do you employ on-farm (select all that apply)?	Percent of respondents*						
	CAN (n=594)	BC (n=54)	AB (n=209)	SK (n=128)	MB (n=56)	ON (n=90)	QC&M (n=57)
None	1.2%	0.0%	0.0%	2.3%	1.8%	2.2%	1.8%
Paper records	79.2%	83.3%	75.6%	82.0%	85.7%	80.2%	80.7%
Spreadsheets	47.8%	64.8%	50.2%	43.0%	42.9%	42.2%	52.6%
Accounting software	20.7%	18.5%	19.1%	17.2%	28.6%	22.2%	28.1%
Electronic cattle management software	17.8%	18.5%	21.5%	16.4%	17.9%	14.4%	14.0%
Other	4.7%	3.7%	4.3%	5.5%	3.6%	3.3%	7.0%

\* Percentages add up to 100% as respondents can select all that apply.

The majority (85.9%) of those who keep records use them for on-farm decision making, 64.2% keep records as part of a farm journal of activities. Records are also used for financial analysis by 46.0% of respondents, while 30.7% use them for qualification programs and 27.3% use records as supporting documentation for obtaining financing.

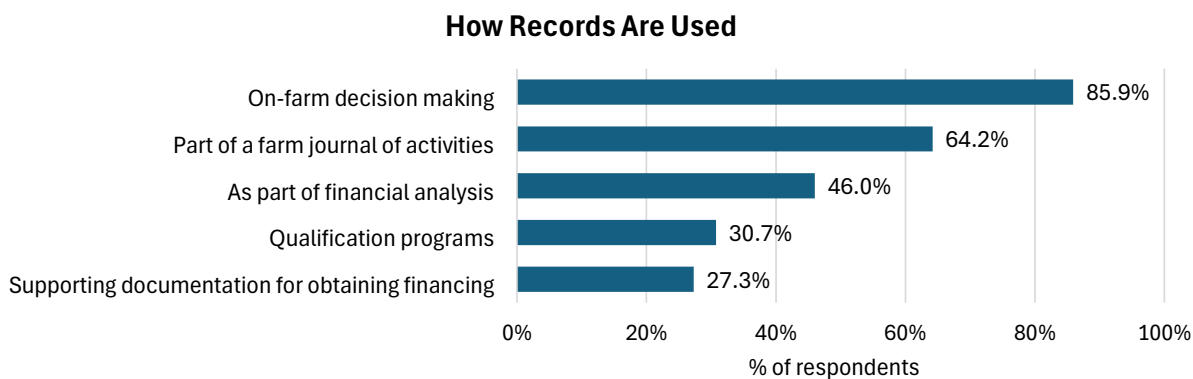


Figure 61. How records are used on operation, by province

Table 72. How records are used on operation, by province

How are these records used (select all that apply)?	Percent of respondents*						
	CAN (n=589)	BC (n=54)	AB (n=210)	SK (n=125)	MB (n=55)	ON (n=89)	QC&M (n=56)
Part of a farm journal of activities	64.2%	72.2%	69.5%	63.2%	56.4%	56.2%	58.9%
Qualification programs	30.7%	38.9%	27.6%	43.2%	25.5%	20.2%	28.6%
On-farm decision making	85.9%	88.9%	90.0%	84.0%	80.0%	86.5%	76.8%
As part of financial analysis	46.0%	51.9%	50.5%	43.2%	43.6%	41.6%	37.5%
Supporting documentation for obtaining financing	27.3%	11.1%	31.0%	27.2%	43.6%	20.2%	25.0%

\* Percentages add up to greater than 100% as respondents can select all that apply.

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