

# Manitoba Commercial & Non-commercial Beekeeper Wintering Loss Survey Results for 2020-21

	Survey Questions & Criteria	Commercial (≥50 colonies)	Non-Commercial (<50 colonies)	All beekeepers
	The <b>type</b> of data collection <sup>1</sup> :	Email survey conducted by Provincial government & promoted by provincial and regional beekeeper associations	Email survey conducted by Provincial government & promoted by provincial and regional beekeeper associations	Email survey conducted by Provincial government & promoted by provincial and regional beekeeper associations
	<b>Number</b> of surveyed beekeepers (beekeepers registered with email address)	166	528	694
	<b>Number</b> of respondents:	44	84	128
	<b>Number</b> of full-sized colonies put into winter in fall 2020 (for the surveyed beekeepers) :	48,045	779	48,824
	<b>Number</b> of full-sized colonies that survived the winter and were considered viable (for the surveyed beekeepers) <sup>3</sup>	40,638	632	41,270
	<b>Percent of loss</b> (calculated as (C7- C8)/C7*100) :	15.4%	18.9%	15.5%
	<b>Number</b> of full-sized colonies put into winter <b>outdoor</b> in fall 2020 (for the surveyed beekeepers) :	22,678	519	23,197
	<b>Number</b> of full-sized colonies that survived the winter <b>outdoor</b> and were considered viable (for the surveyed beekeepers) <sup>3</sup>	19,693	417	20,110
	<b>Percent of loss outdoor wintering</b> (calculated as (C10 - C11)/C10*100)	13.2%	19.7%	13.3%
	<b>Number</b> of full-sized colonies put into winter <b>indoor</b> in fall 2020 (for the surveyed beekeepers) :	25,367	260	25,627
	<b>Number</b> of full-sized colonies that survived the winter <b>indoor</b> and were considered viable (for the surveyed beekeepers) <sup>3</sup>	20,945	215	21,160
	<b>Percent of loss indoor wintering</b> (calculated as (C13- C14)/C13*100) :	17.4%	17.3%	17.4%
From the survey (considering the adopted definitions)	<b>Top four main causes</b> of death according to the beekeepers (with ranking – 1 to 4) :	Poor Queens	Weather Conditions	Poor Queens
		Weak Colonies in the fall	Weak Colonies in the fall	Weak Colonies in the fall
		Starvation	Starvation	Starvation
		Weather Conditions	Poor Queens	Weather Conditions
	<b>Top four main causes</b> of death according to the beekeepers who reported higher than (>) 25% losses <sup>5</sup> (with ranking – 1 to 4) <sup>4</sup> :	Weak Colonies in the fall	Weak Colonies in the fall	Weak Colonies in the fall
		Poor Queens	Weather Conditions	Weather Conditions
		Starvation	Starvation	Poor Queens
		Ineffective Varroa control	Poor Queens	Starvation
	Varroa monitoring: % of beekeepers using sticky boards	10.6%	9.1%	9.6%
	Varroa monitoring: % of beekeepers using alcohol wash	68.1%	45.5%	53.3%
% of beekeepers monitoring with either sticky board or washing technique just in the Spring	5.4%	6.3%	6.0%	
% of beekeepers monitoring with either sticky board or washing technique just in the Fall	13.5%	17.5%	16.1%	
% of beekeepers monitoring with either sticky board or washing technique both in the Spring and Fall	51.4%	40.0%	43.9%	
% of beekeepers monitoring with either sticky board or washing technique at least 3 times a year	10.8%	10.0%	10.3%	
Varroa treatment in Spring 2020: % of beekeepers who treated	86.4%	72.6%	77.3%	
Varroa treatment in Spring 2020: <b>3 main methods</b> of treatment	Apivar>Oxalic>Formic	Apivar>Formic>Oxalic	Apivar>Oxalic>Formic	
Varroa treatment in Summer/Fall 2020: % of beekeepers who treated	93.5%	86.0%	88.6%	
Varroa treatment in Summer/Fall 2020: <b>3 main methods</b> of treatment	Oxalic>Apivar>Formic	Oxalic>Formic>Apivar	Oxalic>Apivar>Formic	
AFB/EFB treatment in Spring 2020: % of beekeepers who treated with oxytetracycline	46.3%	8.4%	21.4%	
AFB/EFB treatment in Spring 2020: % of beekeepers who treated with tylosin	0	0	0	
AFB/EFB treatment in Spring 2020: % of beekeepers who treated with lincosylin	0	0	0	
AFB/EFB treatment in Summer/Fall 2020: % of beekeepers who treated with oxytetracycline	30.9%	3.6%	13.0%	
AFB/EFB treatment in Summer/Fall 2020: % of beekeepers who treated with tylosin	11.9%	0	4.1%	
AFB/EFB treatment in Summer/Fall 2020: % of beekeepers who treated with lincosylin	0	0	0	
Nosemosis treatment in Spring 2020: % of beekeepers who treated with fumagillin	9.5%	7.3%	8.1%	
Nosemosis treatment in Spring 2020: % of beekeepers who reported at least one "other" product	11.9%	1.2%	4.9%	
Nosemosis treatment in Fall 2020: % of beekeepers who treated with fumagillin	11.9%	6.0%	8.0%	
Nosemosis treatment in Fall 2020: % of beekeepers who reported at least one "other" product	9.5%	1.2%	4.1%	
Ranking of the impact of Covid-19 on mortality (Median score from 0 - 10 ranking with zero being no impact)	1	1	1	
Top 3 Covid-19 reported issues	Access to Labour>Access to beekeeping supplies>Access to bees	Access to beekeeping supplies>Access to bees	Access to beekeeping supplies>Access to Labour>Access to bees	
<b>From Statscan</b>	Total number of hives operated in your province in 2020	113,830	4,867	118,697
<b>From your registration database</b>	Total number of hives operated in your province in 2020	113,830	4,867	118,697

1. online, email, telephone, postal, ...

2. detail, per ex.: operations with more than X colonies

3. on May 1st (British Columbia), May 15th (Ontario, Quebec and Maritimes) or May 21st (Newfoundland, Alberta, Saskatchewan and Manitoba) (for the surveyed beekeepers):

4. 1= the most often checked/cited cause, 2= the second most often checked cause...

5. Consider only answers from operations with more than 25% losses