

2011 Genetics Survey

The 2011 Genetics survey was circulated to GenOvis participants and to the general industry in English and in French. This survey was done to gather information for the research project “Genetic evaluation and selection tools for profitability improvement in Canadian sheep production” underway at the Center for the Genetic Improvement of Livestock at the University of Guelph with funding from the Ontario Ministry of Agriculture Food and Rural Affairs, the Ontario Sheep Marketing Agency and the Centre D’expertise en Production Ovine du Quebec.



The response to the survey was excellent with a total of 375 surveys completed. 78 GenOvis participant surveys and 297 industry surveys were filled out. The average flock size of those participating was 208 ewes with representation from 9 different provinces. In general the survey illustrated that there are still many different production systems and breeds of sheep being used across Canada.



A few important highlights are:

- 83% of general industry respondents are interested in buying performance tested animals provided they are the breed they use and tested for traits that are important on their farm.
- 62% of all respondents have an annual production system
- 61% of all respondents use pasture and confinement.
- 56% of all respondents say the main objective of their flock is to produce market lambs.
- 41% of all respondents sell market lambs live with many selling lambs graded, direct as cuts or direct as freezer lambs or some combination of these.
- The top three breeds represented across all respondents are: Dorset, Rideau and Suffolk sheep.
- 56% of general industry respondents buy performance tested animals.
- 83% of general industry respondents would use a performance tested ram finding website.
- 81% of GenOvis respondents would prefer standard indexes rather than customizable indexes. Customizable indexes would be interesting but the resulting problems with understanding and use across flocks could be more detrimental than helpful. Indexes designed specifically for a breed could be useful.
- 61% of GenOvis respondents are satisfied with the current indexes. Others would like more traits included, the emphasis changed or the results to be less variable.



Thank you very much to all those producers who filled out the survey and provided feedback and many valuable comments. The results of the survey are below.

2011 Genetics Survey Results

GenOvis # (78)	% GenOvis		Industry # (297)	Industry %	Total All (375)	Overall %
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Approximately how many ewes are in your flock?						
179.9		Mean	215.4		208.1	
164.9		Standard Deviation	315.6		291.2	
11		Minimum	1		1	
750		Maximum	2300		2300	
What province do you live in?						
4		Alberta	8		12	
		British Columbia	14		14	
		Manitoba	29		29	
1		New Brunswick	4		5	
7		Nova Scotia	10		17	
30		Ontario	128		158	
3		Prince Edward Island	8		11	
21		Quebec	79		100	
1		Saskatchewan	10		11	
How long have you been performance testing your animals?						
11	14.1%	1 y				
21	26.9%	2-5 ys				
14	18.0%	5-10 ys				
32	41.0%	>10 ys				
How would you classify your production system?						
41	52.6%	Annual	193	65.0%	234	62.40%
37	47.4%	Accelerated	104	35.0%	141	37.60%
How would you classify your production system?						
5	6.4%	Pasture	45	15.2%	50	13.3%
28	35.9%	Confinement	67	22.6%	95	25.3%
45	57.7%	Both	185	62.3%	230	61.3%
How would you classify your production system?						
45	30.6%	Winter lambing	137	28.7%	182	29.1%
57	38.8%	Spring lambing	213	44.6%	270	43.2%
26	17.7%	Fall lambing	75	15.7%	101	16.2%
19	13.0%	Lambing every month	53	11.1%	72	11.5%



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Would you say that the main objective of your flock is to sell:						
34	44.2%	Breeding stock	59	19.9%	93	24.9%
29	37.7%	Market lambs	182	61.3%	211	56.4%
2	2.6%	Wool	6	2.0%	8	2.1%
1	1.3%	Milk	4	1.4%	5	1.3%
11	14.3%	Other	46	15.5%	57	15.2%

Most of the comments indicated that they did not have a main objective but that either the first two or three or even all 4 objectives listed were equally important.

Would you classify the ewes in your flock as:						
36	21.8%	Hardy	130	22.9%	166	22.7%
42	25.5%	Prolific	126	22.2%	168	23.0%
59	35.8%	Maternal	195	34.4%	254	34.7%
28	17.0%	Meat	116	20.5%	144	19.7%

Most respondents selected more than one of the categories listed. Comments indicated: that the term prolific can mean a range in lambs born per ewe from 1.5 to 3.0 or more; that the term hardy can mean ability to live outdoors in winter to ability to live outdoors year round with minimal intervention and limited feed stuffs; meat was selected by many because everyone is selling it and by other who have specialized meat breeds and in general maternal is related to milking and the ability to look after lambs.

Approximately what % of your lambs are sold as market lambs?						
	63.8%	Mean				
	23.1%	Standard Deviation				
	0.0%	Minimum				
	100.0%	Maximum				

Are the market lambs sold from your farm:						
42	31.1%	Live	213	44.3%	255	41.4%
35	25.9%	Graded	80	16.6%	115	18.7%
22	16.3%	Direct as cuts	68	14.1%	90	14.6%
36	26.7%	Direct as freezer lambs	112	23.3%	148	24.0%
		Don't sell lambs	8	1.7%	8	1.3%

Have you participated in genetic evaluation program?						
		Currently	48	17.8%		
		In past 5 ys	11	4.1%		
		> 5 ys ago	37	13.7%		
		Never	174	64.4%		



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What breeds of sheep are in your ewe flock?						
5	3.3%	Canadian	19	3.2%	24	3.2%
23	15.1%	Dorset	110	18.3%	133	17.6%
13	8.6%	Hampshire	25	4.2%	38	5.0%
4	2.6%	North Country Cheviot	40	6.6%	44	5.8%
5	3.3%	Polypay	18	3.0%	23	3.1%
32	21.1%	Rideau	80	13.3%	112	14.9%
18	11.8%	Suffolk	94	15.6%	112	14.9%
12	7.9%	Romanov	35	5.8%	47	6.2%
3	2.0%	Texel	31	5.2%	34	4.5%
7	4.6%	Charollais	14	2.3%	21	2.8%
30	19.7%	Other	136	22.6%	166	22.0%

Approximately 30 additional breeds were listed under the other category

What breeds of rams are in your flock?						
4	2.6%	Canadian	27	4.9%	31	4.4%
27	17.8%	Dorset	93	17.0%	120	17.2%
14	9.2%	Hampshire	34	6.2%	48	6.9%
4	2.6%	North Country Cheviot	29	5.3%	33	4.7%
4	2.6%	Polypay	8	1.5%	12	1.7%
27	17.8%	Rideau	61	11.2%	88	12.6%
23	15.1%	Suffolk	99	18.1%	122	17.5%
12	7.9%	Romanov	39	7.1%	51	7.3%
4	2.6%	Texel	29	5.3%	33	4.7%
7	4.6%	Charollais	18	3.3%	25	3.6%
26	17.1%	Other	110	20.1%	136	19.5%

Do you buy performance tested animals?						
		Yes	150	55.6%		
		No	120	44.4%		

Comments: many commented that they wanted performance info to consider along with other factors when purchasing an animal; in many cases performance tested animals are not available for the breed; many just getting started don't feel a need for performance tested animals yet; others don't buy performance tested animals because: they prefer conformation, can tell if the animal is good themselves, don't trust the criteria, want wool information but most of the time they don't buy because they aren't available. Some look for scrapie resistance; always buy performance tested rams, use performance information but it is not the only criteria and need data to improve the flock.



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Are you interested in buying performance tested rams?						
		Yes	224	83.0%		
		No	46	17.0%		

Comments: depends on cost, more interested in type, need greater selection, only if raised on low grain diet, only buy performance tested animals, must have performance test for rams, buy them if they are available - not enough tested in the breed.

Would you use performance tested ram finding website that allows you to select what traits are important to you and uses that criteria to provide a list of possible rams with owner contact information?						
		Yes	224	83.0%		
		No	46	17.0%		

Comments: good idea; need to be able to use it within region; could refer to it but need to see the ram; flocks have to be large enough for the rams to be interesting; needs to be easy to use; would like milk traits; depends on the performance tests that are done; want the name attached; also need health status of the flock; would be nice to have across breed information as well.

Would you be interested in buying rams that are selected to improve the grade that carcasses receive on the rail?						
		Yes	232	86.0%		
		No	38	14.0%		

Comments: lack of grading is a problem for most; others have different objectives for their flocks; important to keep diversity in flocks - if all use the same criteria there will only be one breed; currently use the terminal index; if it is affordable.

What traits are most important to you when selecting rams?						
51	13.9%	Growth rate				
28	7.7%	Survival				
33	9.0%	Carcass - meat				
22	6.0%	Carcass - fat				
35	9.6%	Number born				
32	8.7%	Number weaned				
14	3.8%	Lambing interval				
9	2.5%	Age at 1st lambing				
40	10.9%	Growth index				
32	8.7%	Terminal index				
47	12.8%	Maternal index				
23	6.3%	Other				

Other included: fecal count, total body muscle and fat, fleece quality, worm resistance, conformation, mature size, ultrasound fat and muscle, 50 day maternal, # weaned and kg lamb/ewe per lambing and per year.



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What traits are most important to you when selecting ewes?						
37	17.7%	Same as rams				
15	7.2%	Growth rate				
19	9.1%	Survival				
5	2.4%	Carcass - meat				
2	1.0%	Carcass - fat				
24	11.5%	Number born				
21	10.1%	Number weaned				
16	7.7%	Lambing interval				
13	6.2%	Age at 1st lambing				
14	6.7%	Growth index				
6	2.9%	Terminal index				
28	13.4%	Maternal index				
9	4.3%	Other				

Other included: milk production, conformation, mature size and 50 day maternal.

Do you buy you replacement rams?						
22	28.6%	Always				
20	26.0%	More then 1/2 the time				
25	32.5%	Less then 1/2 the time				
10	13.0%	Never				
Do you buy you replacement ewes?						
3	3.9%	Always				
1	1.3%	More then 1/2 the time				
17	22.1%	Less then 1/2 the time				
56	72.7%	Never				

Do you think a customizable index is useful?						
46	65.7%	Yes				
24	34.3%	No				

Most comments related to the importance of having a standard index. Comments included: might be confusing; useful to have both customizable for use within flock and standard for selling and buying; concern about how to compare to rest of industry; maybe by breed; follow UK program if possible; too much information; just give rank of each animal 1,2, etc; finish the standard service before offering a personalized service; it increases the difficulty of understanding the results; not a good idea for everyone to be working in different directions; compare breeds the same way.



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Would you prefer standard indexes so that all farms are using the same indexes?						
57	81.4%	Yes				
13	18.6%	No				

Do you think it is a good idea to have both a customizable index and standard indexes?						
56	80.0%	Yes				
14	20.0%	No				

Would you use customizable index?						
50	71.4%	Yes				
20	28.6%	No				

Comments: although many people said that it was a good idea to have a customizable index and might use it, the comments were all related to the increased problem with understanding the index and the need for producers to use the same index. A few felt that it might be useful for a breed to have its own index.

Which objectives would you most like to have an index for?						
21	15.0%	Terminal - live				
19	13.6%	Terminal - graded				
30	21.4%	Maternal - accelerated				
21	15.0%	Maternal - annual				
35	25.0%	Dual purpose				
14	10.0%	Other				

Other included: natural aseasuality, lamb survivability from terminal sires, weight weaned per year, paternal characteristics with ADG, kg lamb produced per year and lifetime, terminal characteristics in an accelerated lambing program, selection for twins of a certain weaning weight that are aseasual.

What indexes do you use now?						
41	26.8%	Growth				
26	17.0%	Terminal				
50	32.7%	Maternal				
24	15.7%	Terminal with maternal				
12	7.8%	None				

Are you satisfied with the current indexes for your flock?						
43	61.4%	Yes				
27	38.6%	No				



Comments included: need more traits, would like an index for longevity and worm resistance, don't understand the current indexes, 50 day maternal (milk production) is not important enough in current maternal index, indexes are too variable and unreliable it is hard to rely on longterm index, a sheep that weans more kg of lamb per year than the average of the flock should have a positive maternal index especially if the dam has a good kg weaned - not the case currently, it is difficult to choose the correct index on the new reports, several comments indicated that their indexes have dropped in the new system, not sure if the current indexes relate to the criteria needed for Dorpers, consider measurement of scrotal circumference to improve low heritability maternal index.

Do you have any further comments on the survey?

General Comments - GenOvis Users: good program; just started program; provide clear explanation of index, composition and objectives; keep it simple; add worm resistance; training needed; animals should be scanned, need an economic index, growth and terminal indexes are very close - do we need both, top 100 animals should be classified and need to consider conformation; would like to have a way to evaluate feeding sheep -kinds of grains, forages and amounts fed -was able to do this with DHIA for dairy; more information on how to understand reports; more work needs to be done, many producers only collect part of the data which biases the results, extension is needed.

General Comments - Industry - people already know what they want and who the best animals are, it is not needed; industry real needs can't be concluded from a survey; industry needs to move away from show ring type evaluation to proven scientific methods so the industry can become more competitive; need to find a better way to attach GenOvis indexes to financial return; performance and genetic testing are the right way to go to improve industry; also want to improve quality of breed and wool; want inbreeding coefficients for proposed matings available in GenOvis; need system to credit best producer with less government, no new breeds and free marketing system; meat from ruminants should be from land that cannot be used for grain production; maternal index is influenced too much by the 100 day weight; producers don't know how to use performance info need to learn to use what we have before more is developed; need to be paid for quality before this will be important; difficult to source rams from flocks that value pasture production; need less regulation; need to increase level of performance testing; important to improve the evaluation program by including health information, conformation, genotyping etc; involved in export market, 90% of inquiries request performance info; some provinces have problems with transportation and availability of tested breeding stock; would like to keep all animal information in one place ie registration etc and an easy transfer of data from handling equipment; want to see evaluations for dairy sheep; there are too many breeds; genetic evaluation is a good tool but must still know the breeder and their sheep and the proof is in the progeny; as with swine you must verify the fat in ewes because they have influence; I thought the new GenOvis was finished but if this is needed it is disappointing that it is not yet done; I don't think the new evaluation minimizes the effect of management.

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