



**Canadian Centre for Swine Improvement Inc.
Centre canadien pour l'amélioration des porcs inc.**

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To Regional Centres and Canadian A.I. Centres

Ottawa, November 30th, 2009

Subject: Conformity of contemporary groups in national genetic evaluations for age, backfat and lean depth

The Canadian Centre for Swine Improvement is conducting genetic evaluations on scanned pigs tested across Canada on a biweekly basis. The contemporary groups are a vital part of the genetic evaluation process because they allow for the environmental effects (feeding, health, management, climatic conditions, etc) to be considered in order to accurately estimate the genetic potential.

The following recommendations for contemporary group conformity have been drafted in order to enhance the accuracy of genetic evaluations:

1. Include at least 10 scanned pigs
2. Contain pigs of the same breed and sex
3. Contain pigs born from at least 3 different sires
4. Span a maximum birthing period of 15 weeks
5. Have a standard deviation of performance less than 1.5 times the national average, specifically:
 - 11 days for age,
 - 1.8 mm for backfat thickness,
 - 5 mm for lean depth.

In order to provide breeders with the best selection tools, CCSI has made available on its website a report on contemporary groups for each herd (Menu Reports→Contemporary Group under the section “Probe Reports”) which allows each breeder and regional centres to verify the conformity of contemporary groups using a warning system. An example of the report with potential warnings is attached for your information. Note that a warning does not invalidate the EBVs, but some caution may be warranted when considering animals in groups with such warnings.

The conformity of these groups is very important for the accuracy of EBVs and indices that are produced. For this reason we would encourage staff of the regional centres to review these reports with breeders after each farm visit. This will ensure that breeders are aware of conformity problems of contemporary groups that could compromise the accuracy of EBVs and indices. We would also suggest that AI centres request a copy of the report on the contemporary groups of boars being considered for entry into AI.

If you have any questions about contemporary groups and tools on the CCSI website, please do not hesitate to contact us.

Cordially,
The CCSI team

Examples of Management Group reports from CCSI website

Herd 1

Management Group	Probe Period		Pigs	Sires	Litters	Sex	% AI	Age (days)			Fat (mm)		Lean (mm)		Warning
	Start	End						Range	Avg	Std.Dev	Avg	Std.Dev	Avg	Std.Dev	
20081M	20080107	20080204	22	4	10	M	40.9	49	158.6	10.3	12.4	1.2	63.7	4.1	
20081F	20080107	20080218	20	4	9	F	35.0	49	158.6	14.1	10.5	1.0	65.8	3.2	
20082M	20080414	20080623	23	4	11	M	39.1	86	161.0	13.3	12.2	1.4	61.8	4.2	
20082F	20080414	20080623	30	5	12	F	16.7	66	156.9	9.3	10.7	1.0	62.2	3.7	
20083F	20080707	20080929	32	7	12	F	18.8	99	159.8	14.0	11.0	1.1	63.8	3.9	
20083M	20080707	20080929	18	6	11	M	5.6	92	165.8	10.2	13.2	1.6	63.8	3.5	
20084M	20081015	20081222	16	4	9	M	12.5	78	163.1	12.1	12.3	1.7	63.5	4.2	
20084F	20081015	20081222	23	4	12	F	4.3	83	163.8	17.4	10.7	1.0	64.8	3.8	Variation
20091M	20090105	20090330	43	5	20	M	23.3	91	157.4	12.2	12.0	1.2	61.8	3.1	
20091F	20090105	20090330	38	4	18	F	23.7	97	156.3	12.3	10.2	1.3	63.3	3.1	
20092M	20090413	20090622	34	5	14	M	20.6	88	160.1	9.7	11.1	1.2	61.5	3.8	
20092F	20090413	20090622	26	5	13	F	23.1	88	158.0	11.2	9.6	1.2	62.5	3.2	
20093M	20090720	20090827	13	4	7	M	46.2	37	160.6	8.3	9.6	1.2	59.5	4.3	
20093F	20090720	20090827	15	3	9	F	46.7	37	153.9	9.1	8.8	1.2	62.1	3.2	

Herd 2

Management Group	Probe Period		Pigs	Sires	Litters	Sex	% AI	Age (days)			Fat (mm)		Lean (mm)		Warning
	Start	End						Range	Avg	Std.Dev	Avg	Std.Dev	Avg	Std.Dev	
20081F	20080128	20080331	18	3	8	F	83.3	112	142.2	10.5	9.0	1.0	69.5	3.3	Age Range
20081M	20080317	20080331	7	2	4	M	71.4	19	144.1	4.1	10.4	0.8	69.7	2.2	Number of Pigs
20082F	20080505	20080627	9	3	5	F	33.3	41	160.1	15.1	8.5	0.9	68.2	4.0	Number of Pigs
20082M	20080505	20080627	17	3	7	M	29.4	89	150.4	11.7	8.5	0.7	68.7	3.4	
1751861X	20080715	20081202	30	6	11	M	63.3	159	156.3	9.6	9.1	0.9	68.5	3.3	Age Range
1751862X	20080715	20081202	21	5	9	F	47.6	146	151.6	8.3	8.5	1.2	69.8	2.9	Age Range
1751961X	20090105	20090630	24	2	9	M/F	16.7	177	148.0	9.5	9.5	1.4	68.3	2.6	Number of Sires
1751962X	20090105	20090630	29	2	8	F	34.5	177	148.5	11.4	9.0	1.2	68.4	3.1	Number of Sires
1752061X	20090803	20090921	14	2	8	M	28.6	44	150.9	10.9	9.6	1.5	68.5	2.8	Number of Sires
1752062X	20090803	20090921	16	2	8	M/F	12.5	44	148.7	11.5	8.7	0.7	69.1	2.8	Number of Sires