

Commercial Value of Genetic Improvement in Ontario Swine Genetics from 2002 to 2007

Change in Commercial Sows (F1s) and Hogs due to genetic improvement in Ontario Swine Genetics from 2002 to 2007					
Trait	Sire Line Duroc	Dam Line			Market Hogs
		Yorkshire	Landrace	F1s	
Sire Line Index	54				
Dam Line Index		69	66	68	
Lean Yield	0.78	0.23	0.5	0.36	0.57 %
Loin Eye Area	2.69	0.65	0.61	0.63	1.66 sq cm
Age	-8.1	-5.7	-8	-6.9	-7.5 days
Feed Conversion	-0.119	-0.075	-0.11	-0.092	-0.105 kg/kg
Backfat	-1.68	-1.1	-1.39	-1.25	-1.46 mm
Lean Depth	3.48	1.12	1.18	1.15	2.32 mm
Number Born		2.26	1.16	1.71 pigs	
Sire Line Index	\$ 34.2				
Dam Line Index		\$ 36.1	\$ 26.5	\$ 62.5	

The total dollar value for commercial production is computed by adding the dam line index change for Yorkshire (\$36) and the dam line index change for Landrace (\$26) to the sire line index change for Durocs (\$34). That assumes a producer is using Yorkshire X Landrace sows and Duroc terminal sires. In this case, the total improvement for commercial production is \$97 CDN per litter. If each sow produces an average of 2.2 litters per year, then the improvement per sow is \$213/year. In other words, each commercial sow on average will be \$213 more productive from 2007 genetics compared to sows from 2002 genetics because of Ontario Swine Breeders genetic improvement.

Where is all this money coming from? Most of it comes from more productive sows and hogs:

1. 1.7 more pigs born per litter in F1s, gives an extra 3 pigs weaned per sow per year, worth about \$90.
2. 7 days faster to market saves overhead, worth \$2.02 per hog or \$40 per sow
3. -0.105 change in feed conversion saves 9 kg feed per hog, worth \$2.24, or \$45 per sow.

The improvements in carcass quality have also led to higher revenue:

1. 0.6% increase in lean yield is worth about \$0.67 per hog or \$13 per sow from higher index.
2. The remaining \$24 per sow (\$1.21 per hog) is a crude estimate of the value of extra lean per hog which allows the packers to pay producers more than they could otherwise afford.