



**AMERICA'S BEST
GENETICS**

The Source for Pure Genetic Progress

**INCREASED
BIRTHWEIGHT,
IMPROVED
BOTTOM LINE**



DOUGLAS NEWCOM, Ph.D. • V.P. of Global Technical Service
National Swine Registry • 2639 Yeager Road, West Lafayette, IN 47906
Office: 765.463.3594 • Cell: 765.421.1440
doug@nationalswine.com

AmericasBestGenetics.com



Is 30 pigs/sow/year the “Magic Number” to your profitability



National Swine Registry members involved in America's Best Genetics apply cutting-edge genetic tools to make pigs more profitable, not just larger litters.

Selection on the STAGES™ Maternal Line Index combines female reproductive traits with grow-finish traits in a bio-economic index to make genetic improvement for profitability.

**Have you
thought about ...**

- ***Robustness?***
- ***Livability?***
- ***Pounds marketed per sow?***
- ***System profitability?***

**Make sure you ask the
right questions of your
genetic supplier.**

Impact of birth weight on post-weaning performance

With the increase in litter size through genetic selection, piglet size at birth has become smaller. It is well documented smaller pigs at birth have a higher probability of mortality prior to weaning and reduced probability of becoming a full-value market pig. Data from the National Swine Registry's Swine Testing and Genetic Evaluation System (STAGES™) Yorkshire, Landrace, and Duroc populations were evaluated to determine the impact of piglet birth weight on post-weaning performance.

- Data from piglets not performance tested was not included, only those pigs with birth- and weaning weight, and post-weaning performance test data were included. A total of 22,109 pigs were included.
- Data was broken down by breed and birth weight: < 1.0 kg, 1.0 – 1.5 kg, 1.5 – 2.0 kg, and > 2.0 kg.
- Data extrapolated to 2,500 sow commercial sow farm, farrow-to-finish (25% Yorkshire, 25% Landrace, 50% Duroc).

Data – Commercial Extrapolated from purebred data

Class	Weight Range	Ave. BW, lb.	Ave. WW, lb.	TNB	NW	Wean %
1	< 1.0 kg	1.93	12.90	15.88	12.32	78%
2	1.0-1.5 kg	2.91	13.91	15.13	11.79	78%
3	1.5-2.0 kg	3.79	15.39	13.93	11.49	82%
4	> 2.0 kg	4.77	17.46	12.42	10.97	88%

Class	Market/Litter	Market %	Wean Age	Off-test Age	Off-test Weight, lb.	Days to 250 lb.	Backfat	Loin Muscle Area
1	11.34	71%	26.26	179.87	244.07	184.48	0.63	7.21
2	11.32	75%	23.22	174.14	250.18	175.32	0.68	7.17
3	11.26	81%	22.18	170.85	256.52	168.61	0.67	7.13
4	10.86	87%	21.50	167.77	263.71	162.36	0.67	7.07

Economic Analysis – Commercial 2,500 Sows 25% Yorkshire, 25% Landrace, 50% Duroc

BW Class	Pigs	\$/Lactation	NPD/litter	Total Weight	\$/Total Days on Feed	Total Feed	Total
1	0	\$-	\$-	\$-	\$-	\$-	\$-
2	-71	\$9.59	\$4.38	\$190,436.17	\$148,603.59	\$(161,489.87)	\$254,345.36
3	-420	\$12.86	\$5.87	\$387,705.85	\$256,808.62	\$(328,774.56)	\$418,730.72
4	-2,587	\$15.02	\$6.86	\$600,492.54	\$350,900.68	\$(509,217.67)	\$562,509.38

- **Difference in number of pigs marketed**
- **Additional feed per day in lactation**
- **Additional NPD cost – nursing longer to reach heavier weaning weight is detrimental**
- **Additional revenue for live weight**
- **Additional cost for days on feed**
- **Feed savings by marketing lighter weight**



DOUGLAS NEWCOM, Ph.D. • V.P. of Global Technical Service
National Swine Registry • 2639 Yeager Road, West Lafayette, IN 47906
Office: 765.463.3594 • Cell: 765.421.1440
doug@nationalswine.com

AmericasBestGenetics.com