Select Connections

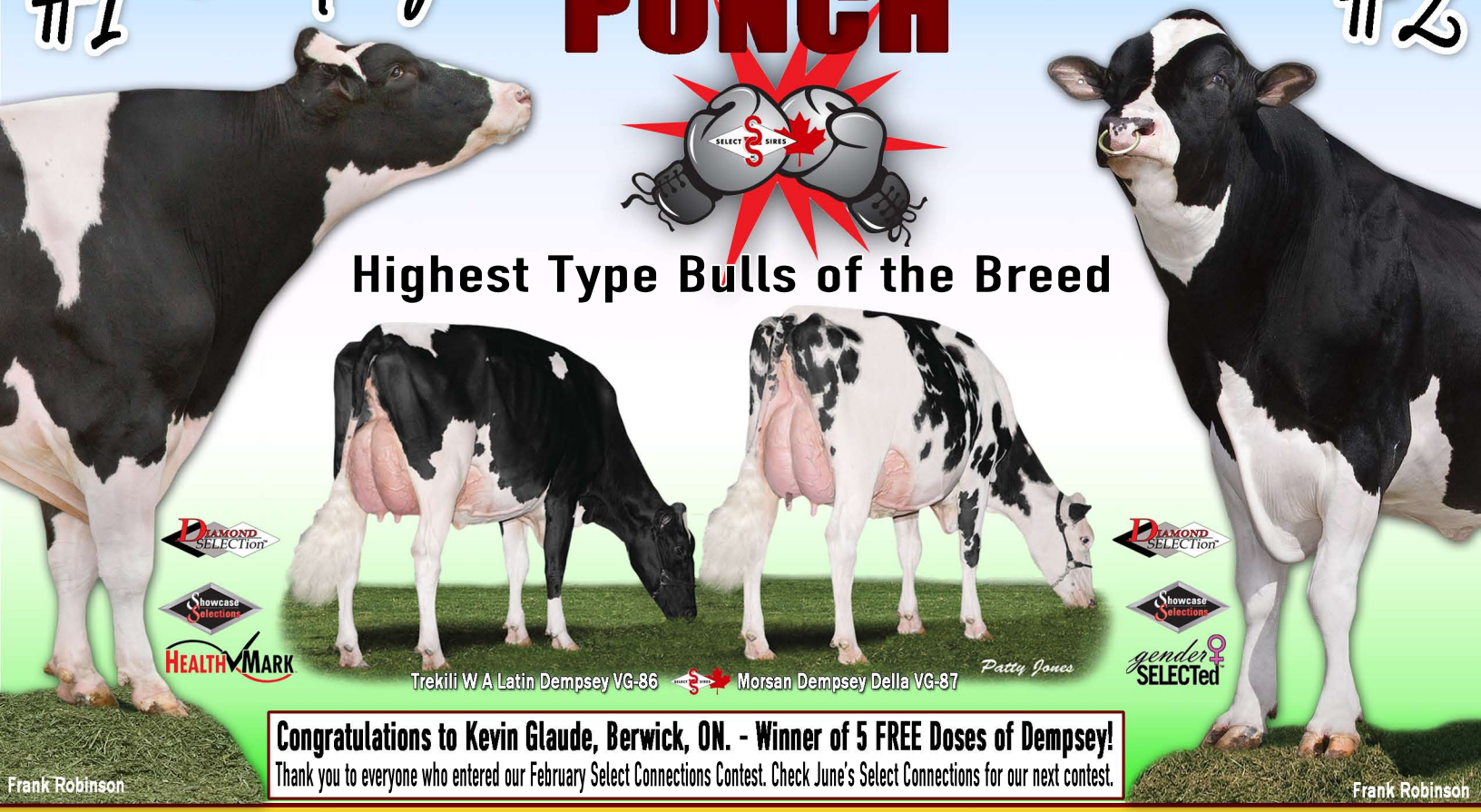
April 2014
Issue # 10

Our One Two PUNCH

7HO09264 **#1 Dempsey**

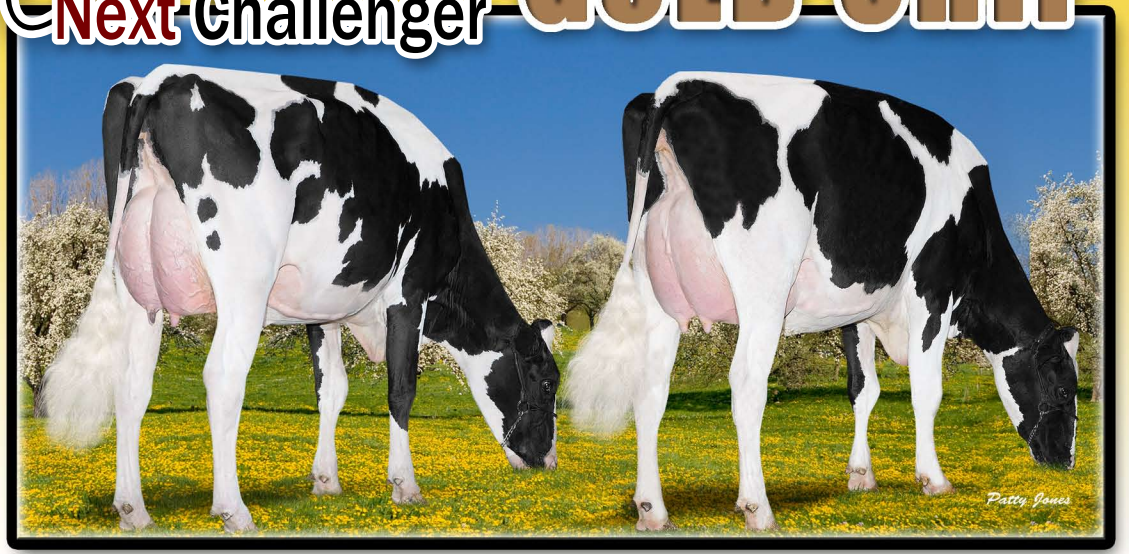
Atwood #2 7HO10506

Highest Type Bulls of the Breed



Congratulations to Kevin Glaude, Berwick, ON. - Winner of 5 FREE Doses of Dempsey!
Thank you to everyone who entered our February Select Connections Contest. Check June's Select Connections for our next contest.

Our Next Challenger 7HO10920 Gold Chip



Rustowil Gold Chip Roxchip — Rustowil Gold Chip Roxby — Rustowil, Joyceville, ON — Deslacs Gold Chip Bianca

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Comparing Young Sires to Proven Sires is like Comparing Apples to Oranges

by Chuck Sattler, Vice President and Manager of Genetic Programs - Select Sires Inc.

We have definitely seen a growing demand for semen from young sires across all the dairy breeds at Select Sires. But, are proven sires truly part of the past? Are proven and young sires comparable? The data may surprise you.

There's no question that genomic evaluations provide more accurate genetic information about young animals than did previous genetic evaluations. Genomic evaluations are 50 percent more accurate at predicting the future performance of a sire's daughters.

The tougher question though, is: are the genomic evaluations accurate enough for a dairy producer to select a handful of young sires and be confident that they are better than available proven sires? If we compare today's top young Holsteins to today's top progeny-proven Holsteins, it seems easy to conclude that young sires are your best option. However, after reviewing the historical results, the conclusions are not quite this clear.

It appears that the genomic evaluations on 75 percent of Holstein young sires go down when daughter information is added. The changes on proven sires are smaller in magnitude and there is an equal chance that they can go up or down. Since we see more genomic evaluations on young sires go down than up, it is clear that there is bias in the evaluation system favoring young animals. Bias in the evaluations of young animals is not new.

How much of a risk are young sires?

Unfortunately the analysis presented in the two tables does not give clear signals about which category of bulls is best. It really boils down to producer preference. There is more risk involved in using young sires, since their proofs will change more than proven sires. But, there is more upside potential for young sires because we know that some of those young sires will turn out to be tomorrow's superstars.

Based on this information you may wonder why A.I. companies and top breeders are so focused on using young animals in their breeding programs. It's important to keep in mind that the goal of A.I. companies, to breed future A.I. sires and maximize genetic progress is much different than the goal of a dairy producer breeding to produce replacement heifers. A.I. companies widely market only 10 to 30 percent of the bulls they acquire while dairy producers need 90 percent or more of their heifer calves to grow up to be profitable contributors to the herd. A dairy farm's net income is dependent on several factors including herd fertility and health, not just a high TPI or NM$ value. Only proven sires and older genomic young sires have data like Sire Conception Rate (SCR) and Calving Ease available. These traits can be directly related to profitability.

How should young sires be used?

The analysis does provide some insight into additional factors to pay attention to if aggressively using young sires. First, a larger number of bulls should be used in the breeding program when young sires are used. If you are currently selecting four progeny-proven sires for use across the herd, then you need to be selecting 10 to 13 different young sires to provide the same level of confidence. Second, young sires need to be selected with higher standards than proven bulls since their evaluations are likely to drop. Currently the top proven sires have evaluations at +2050 TPI and +550 NM$. Genomic young sires need to have evaluations of at least +2250 GTPI or +700 NM$ to be competitive with today's highly selected proven bulls. If the genomic young sire is sired by a young sire, then the standards need to be even higher. These bulls need to be at least +2350 GTPI or +775 NM$ to be competitive with proven sires. Select Sires currently offers more than 60 Super Samplers™ that exceed these specifications.

In today's fast-paced genomic evaluation world, the attributes of highly selected, progeny-proven sires may be under-appreciated. Producers using young sires need to be sure to include more bulls and use higher standards to capture the same level of genetic superiority that progeny-proven sires provide. Directly comparing Holstein proven sires and young sires simply cannot be done.◆

PTA Changes for PGA bulls sampled in 2009

Percentile Rank	Avg. TPI Change	Avg. Ending TPI % Rank	Avg. NM$ Change	Avg. Ending NM$ % Rank
90	-193	84	-147	81
80	-188	67	-85	81
70	-164	62	-104	68
60	-141	58	-146	50
50	-172	42	-115	47
40	-116	47	-68	51
30	-59	52	-83	40
20	-106	32	-75	36
10	-71	29	-51	33
0	-39	20	-76	13

The amount of evaluation change that can be expected for young bulls is not equal. This table shows that the higher ranking young bulls have greater evaluation drops than the average or low bulls. The highest bulls are the ones most likely to turn out to be the highest ones at the end of the day. But, data indicates that their advantage isn't as big as today's evaluations suggest.

April 2010 Top Young Sires	April 2010 GTPI	Dec 2013 GTPI	April 2010 Top Proven Sires	April 2010 GTPI	Dec 2013 GTPI
7HO10606 Observer	+2422	+2186	7HO6417 O Man	+2124	+1973
7HO10604 Osmond	+2255	+2069	7HO8081 Planet	+2118	+2107
7HO10052 Time	+2242	+1900	7HO8747 Bronco	+2060	+2140
7HO10356 Watson	+2231	+2127	7HO9173 Plato	+2059	+1805
7HO10653 Damascus	+2230	+1825	7HO8559 Bogart	+1984	+2088
7HO10219 Boxer	+2226	+1853	7HO9176 Minister	+1978	+1670
7HO10228 Gulf *BY	+2219	+2214	7HO8361 Domingo	+1951	+2049
7HO10416 Prizer	+2205	+1703	7HO8477 Gabor	+1947	+2086
7HO10176 Al	+2204	+1966	7HO8866 Caruso	+1939	+1858
7HO10624 Tempo	+2204	+2077	7HO5586 Niagra	+1936	+2064
AVERAGE	+2244	+1992	AVERAGE	+2010	+1984

The young sires in this comparison have now had the opportunity to have a reasonable number of daughters included in their evaluation. As is the situation today, the young sires had much higher evaluations than the proven bulls in April 2010. But, with three years of additional data, the average of the two groups are nearly identical.