

THE DECEMBER GENETIC EVALUATIONS PROVIDE FEW SURPRISES

By Dr. David Selner

The December Genetic Evaluations

were devoid of any major shakeups in overall sire rankings. There was a slight adjustment to the productive life values which lowered the TPI of sires by a small amount on average and reduced the reliability for the PL trait, but did not cause any major re-ranking. The continuation of the trend of young animals dominating the high genetic listings grew even greater. The highest sire with actual daughter information and the leader of the Top 100 TPI List is +2295 TPI. The genetic progress of the elite young animals continues to greatly exceed the proven sires at an amazing pace as we now have a genomic young sire over +2500 TPI and a young heifer over +2700 GTPI!

The A.I. industry now lists 562 proven sires available to purchase after this evaluation run and a higher number of genomic sires at 1079. Genomic sires are about double the number of daughter proven sires.

This includes over 100 genomic young sires available that are higher than +2295 TPI, the value for the highest daughter proven sire.

On the female side, there are 11 cows that are higher than +2295 CTPI, and now an amazing 1550 heifers that are over +2295 GTPI. The young heifers are so dominant that there are 4750 females that are over +2200 TPI and over 10,000 females over +2100 GTPI. These genetic lists increase at a very rapid rate after every genetic evaluation summary.

I do think that one should use some caution in placing too much emphasis on a few animals that are at the far extremes of the normal range of dairy cattle. Several studies done by A.I. companies (who have access to data that is not publically available) have shown that genomics does a good job in predicting a wide range of animals in a diverse population. I see no reason to not believe those studies. Conversely the studies that I have done on the roughly 300 sires that were actively marketed by A.I. studs in January 2010 (and thus the data was publically available) have shown that these highly selected sires do not hold up as well as the general sire popula-

tion studies when they receive the additional information on their milking daughters. These more extreme, highly-selected and marketed sires have been over-evaluated and generally dropped with additional daughter information. This would seem to indicate that at the far extremes of the population, the general accuracy of a single animal's genomic evaluation may be lower than what you see on the total population and thus more subject to major re-ranking. The astronomical values that are being placed on the far extremes of the female population may lead to some major disappointments in the future.

This volatility at the high end of the scale could become even more variable with the continued extreme utilization of only very young animals as the parents of the next generation. There are numerous examples of high ranking animals whose sires, dams and grandparents have no real performance data. In addition, the industry trend of only using the first available semen of the next high sire on only the best youngest females who are often valued in excess of \$10,000 has the potential to add a tremendous amount of bias into the genetic evaluations. Bias in genetic evaluations has always been a concern and now it is potentially a major detriment to future rankings. AIPL scientists have often been leery of information on high priced foreign proven sires adding bias. Now with high prices on the young male and female sides of the pedigree this could become much more troubling. Major changes in future genetic evaluations of these parental generations could cause real concern as to the amount of genetic progress being made in the population. An example of the volatility of genetic evaluations was found in the current evaluations where the young sire, Ronelee Toystory Domain, went from 2242 TPI to 2040 TPI with the addition of almost 200 milking daughters. Other sires have dropped in excess of 500 TPI points with milking daughters. These shifts happen with males and most certainly will happen in females as well.

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This again focuses attention on the maintenance of a viable database of actual performance data to validate the genomic predictions. Without a comprehensive performance database future genomic evaluations will have less and less accuracy and could become very inaccurate. The exact direction of the industry on a future database system and who will calculate genetic evaluations is still not known at this writing. The minutes of a meeting held in October have still not been publically released and there are plenty of rumors going around as to what the future will be. Shamefully, the amount of rancor in this debate has equaled the negative discourse in the 2012 U.S. political debates. I would hope that whatever the decisions made that the integrity of the U.S. system remains high and beneficial for Holstein breeders. I truly believe that in the future, someone will have to pay to have average or inferior animals to be genotyped so that we truly have a population estimate of all genetics and not just a skewed base of high ranking animals to produce our genomic evaluations. I do not hear this discussion in any of the conversations on a new and modern system. I sincerely hope that the decisions being made are in the best interests of future U.S. dairymen and not in self-serving interests of individual industry groups. The next several months could be very interesting.

An analysis of the new additions to the Top 100 TPI list show the excellence of genetics found in some well known Holstein cow families. The highest new TPI sire is from Select Sires. De-Su Gulf is a Bolton son from a VG-88 DOM Shottle and then the well-known De-Su Oman 6121 (VG-86 GMD-DOM), an Oman daughter with numerous

high ranking offspring. The next dam is an EX BW Marshall. Gulf enters the list with a TPI of +2161 showing a balance of type and production. His breeding values of +1435 Milk, +70 Fat, and +3.0 Productive Life indicate productive, long-lived daughters. Along with the type values of +2.93 PTAT and +3.23 Udder Composite, Gulf sires very pleasing daughters. Gulf should not be used on heifers but should see a lot of use by type and production minded dairymen.

The new number 10 TPI sire is Welcome Bol Latham a member of the Genex lineup. The pedigree is from the heart of one of Bill Peck's strong cow families at Welcome Farms of New York. He is a Boliver son from an EX-91 DOM Oman, then an EX-91 GMD-DOM Air Magna. Another well-balanced sire with a TPI of +2156 and high components of +65 Fat, +0.06%F, +59P, and +0.07 %P. The daughters are open-ribbed and have excellent feet and legs. The udders are well-attached with short teat length.

The new number 12 TPI sire is another Select Sires graduate De-Su Watson at +2152. He is another new sire from the powerhouse genomic herd of De-Su Holsteins, New Albin, Iowa. Watson is a Boliver son and a maternal brother to the aforementioned Gulf. Two sons of the same cow in the TOP 12 TPI is very unusual. Watson daughters have high components with +0.07%P and +0.15%F. He is a calving ease sire that also excels in Productive Life (+4.4). The Watson daughters are angular with snug udders; strongly attached in both fore and rear.

At number 16 TPI (+2130) is the ABS Global graduate Regancrest-PJ Tabber-ET. He is an Oman son from an EX-92 GMD-DOM Boliver. The next dam is a VG-88 GMD-DOM Outside, then Tesk Delia (EX-90

GMD-DOM) and the matriarch Snow N Denises Dellia (EX-95 GMD-DOM). Tabber is a high component sire with long productive life (+4.5) low somatic cell count (2.79) and fertile daughters (+1.9 DPR). The Tabber daughters exhibit no weaknesses in any type traits and excel in feet and legs. The udders are very snug with super fore udder attachments.

The new number 21 sire is Farnear-TBR AltaAvalon from Alta Genetics. Bred by Farnear Holsteins of Iowa, AltaAvalon is a Mac son from an EX-90 Shottle, then a VG-88 GMD Finley and then Canyon Breeze EM August (EX-92 GMD-DOM) from the Gillins herd of Utah. The AltaAvalon daughters are real type pleasers with his PTAT at +3.13, +3.13 UDC and +2.55 FLC. The daughters are tall and open with wide rumps. The fore udders are phenomenal and the rear udder attachments are very extreme as well. When you add in a pleasing production pattern with +2.7 productive life and +2.0 DPR AltaAvalon is a very complete sire to add to your breeding program.

The December genetic evaluations continued the trend of previous genetic evaluations with more and more young animals at the top of the genetic lists. Some breeders do not believe that these young animals should dominate the rankings so completely but that is certainly what will be happening for the foreseeable future. I would caution that some of the extreme prices for high ranking young females may be inflated at this time. The next several months before the April 2013 genetic evaluations will be very critical as the industry struggles with trying to organize how genetic evaluations will be calculated for the future. Be prepared for some major changes to the way this process happens in the future.



*GULF daughter
De-Su 434
MGS: Toystory
De-Su Holsteins LLC, New Albin, IA*



*LATHAM daughter
Ms Welcome Lath Tammi (VG-86)
MGS: Colby
Welcome Stock, Schuylerville, NY*



*TABBER daughter
Pine-Shelter Corky Tabber (VG-85)
MGS: Damion
Pine-Shelter Farms, Pine Island, MN*