

GENETIC SELECTION GUIDE FOR PROGENY

New!



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With increased use of sexed semen, genomics and now breeding of cows and heifers to beef bulls, the planning process for the next generation of cows in the milking herd starts at time of breeding. Depending on the outcome, once the calf is born, the producer decides which calves to sell and which to keep and raise. In most cases, the producer does not have any additional information on the calf beyond the sire and dam. Genetic information about the calf follows once the calf is identified and entered into the DHI system. This generally takes 1 or 2 months. By that time most decisions on which calves to keep have already been made. The new Genetic Selection Guide for Progeny (GSGP) offers producers a new planning tool that will provide them with genetic information about future progeny before the calf is actually born. The report includes up to nine months worth of progeny, including an estimation of where progeny will genetically rank based on their expected NM\$ value. Having information available prior to birth will allow producers to make projections about how many calves to keep, which calves to keep, and which calves could be genomically tested. Sorting calves before they are born helps reduce expenses and optimize genetic progress.



report calculates a NM\$ deviation from either a monthly, 3 month, or 9 month average NM\$ value. The NM\$ deviation values are used to rank all progeny into four quartile groups.

In Block C, progeny ranked in the top 25% are listed with a green highlighted NM\$ value, while progeny in the bottom 25% are listed with a red highlight. On reports listing 151 progeny or more, average NM\$ values are calculated using the month due. Averages are based on progeny due over a 3-month period on reports with 51 to 150 progeny listed. If 50 or fewer progeny are listed, NM\$ values are an average of all

progeny due. The number of progeny due to be born each month and average NM\$ used for calculating the deviation are displayed in Block A. The header (highlighted below) in Block A will designate if average NM\$ were calculated by month, three months or all 9 months.

HOW TO READ THE GSGP

Block A (figure 1) shows that in September there are 19 calves due while in October 53 calves are due to be born.

HOW IS THE REPORT GENERATED?

The progeny records are generated based on the breeding records of cows and heifers confirmed pregnant. The estimated NM\$ value is calculated for each progeny using the cow's NM\$ value and the service sire's NM\$ value. Progeny are displayed in Block C and listed by date due. In order for a producer to find out where progeny will genetically rank, the

A Number of Calves per Month (Using 1 month avg NM\$ for comparison)								
Month	Count	Avg NM\$	Month	Count	Avg NM\$	Month	Count	Avg NM\$
September	19	\$270	December	51	\$289	March	48	\$269
October	53	\$288	January	47	\$303	April	20	\$284
November	57	\$298	February	39	\$323	May	22	\$320

Figure 1) Example using monthly average NM\$ values for comparison

We Measure It ... You Manage It

A Number of Calves per Month (Using 1 month avg NM\$ for comparison)									Est Calf NM\$		B
Month	Count	Avg NM\$	Month	Count	Avg NM\$	Month	Count	Avg NM\$	Quartile 1	This report shows the NM\$ values for progeny of cows that have been bred and confirmed pregnant, ranked by Due Date. If the cow (Calf Dam NM\$) does not have NM\$ yet, it will be based on the values of the Sire and Dam if available (denoted with *). Future offspring where either Sire or Dam are missing NM\$ will not receive an Est Calf NM\$ value.	
September	19	\$270	December	51	\$289	March	48	\$269	Quartile 2		
October	53	\$288	January	47	\$303	April	20	\$284	Quartile 3		
November	57	\$298	February	39	\$323	May	22	\$320	Quartile 4		

C Dam Data			Calf Data				Pedigree			Dam Production Data						
Cntl Num	Barn Name	Visible ID	Calf Dam NM\$ *Est	Calf Sire NM\$	Est Calf NM\$	Due Date (≤ 40)	Calf Sire ID	Calf MGS ID	Calf Dam ID	Lact Num	Avg Dev From Herd 305 ME			Avg Days Open	Avg LS	Avg TCI ©
											Milk	Fat	Pro			
2899	2899	2899	\$299*	\$391	\$345	09-04	200HO05592	7HO09545	840003006805290	0						
2128	2128	2128	\$220 G2	\$73	\$147	09-10	7HO08190	1HO07235	840003001083683	3	4086	116	147	144	1.8	3140
2206	2206	2206	\$226 G1	\$417	\$322	09-10	7HO09420	1HO07235	840003001083761	2	5877	292	176	208	2.1	3987
2917	2917	2917	-\$2*	\$503	\$251	09-15	76HO00581	7HO08190	840003006537154	0						
2554	2554	2554	\$178 G1	\$679	\$429	09-17	7HO10850	1HO09486	840003005138755	1	403	59	40	303	2.2	
2674	2674	2674	\$220	\$460	\$340	09-17	7HO09107	7HO08221	840003005138875	1	1960	7	-18	127	1.2	
2953	2953	2953	\$330*	\$467	\$399	09-20	7HO09321	7HO08165	840003006537190	0						
2616	2616	2616	-\$8	\$354	\$173	09-21	7HO09264	7HO05157	840003005138817	1	2599	-22	102	180	2.1	
2889	2889	2889	\$336*	-\$136	\$100	09-22	7HO09165	7HO08747	840003006805280	0						
2925	2925	2925	\$155*	\$467	\$311	09-22	7HO09321	7HO08165	840003006537162	0						
2424	2424	2424	\$234	\$537	\$386	09-24	7HO10920	1HO07235	840003003020535	2	5453	195	145	100	2.0	2992
2441	2441	2441	\$199	\$707	\$453	09-24	7HO10721	11HO08342	840003003020552	2	441	-194	37	78	1.8	2987
2478	2478	2478	\$408 G1	\$537	\$473	09-24	7HO10920	7HO07536	840003003020589	2	4081	103	134	82	1.5	3707

Figure 2) Sample Genetic Selection Guide for Progeny report

Because the header displays “(using 1 month avg NM\$ for comparison)” the averages used to compare individual progeny to are based on monthly NM\$ averages. In this example, the NM\$ value for September is \$270 and \$288 for October.

Block C displays the progeny sorted by “Date Due”. Cows due within the next 40 days are highlighted in a teal color. NM\$ values are shown for the dam, sire and calf. If the dam NM\$ value is an estimated value (based on her sire and dam) then an “*” will be listed next to the NM\$ value. If the dam was genomically tested, her ancestors, or her progeny, then a “G1”, “G2”, or “G3” designation will be listed next to the dam’s NM\$ value. The estimated NM\$ value for each calf will be highlighted, indicating the quartile she is part of.



In the example shown in Figure 3, cow 2554 is due to calve on September 17th. The calf’s NM\$ value is estimated to be \$429 and that would place that calf in the top quartile (top 25%) of all progeny listed on the report. The dam’s NM\$ value lists a “G1” designator, which means that the dam was genomically tested. Supporting information such as pedigree and dam production data is listed for each of the progeny if available.

C Dam Data			Calf Data				Pedigree			Dam Production Data						
Cntl Num	Barn Name	Visible ID	Calf Dam NM\$ *Est	Calf Sire NM\$	Est Calf NM\$	Due Date (≤ 40)	Calf Sire ID	Calf MGS ID	Calf Dam ID	Lact Num	Avg Dev From Herd 305 ME			Avg Days Open	Avg LS	Avg TCI ©
											Milk	Fat	Pro			

Figure 3) Example record for cow 2554

2554	2554	2554	\$178 G1	\$679	\$429	09-17	7HO10850	1HO09486	840003005138755	1	403	59	40	303	2.2	
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