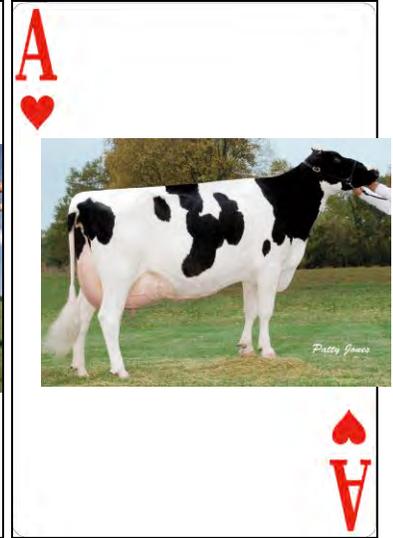
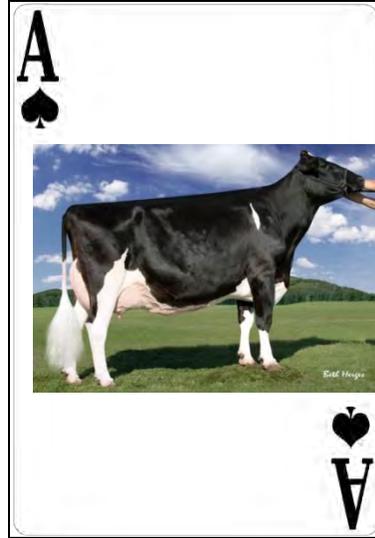


Stacking the Deck



Breeding Great Cows... The Science and Art

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The Role of Type

One of the fundamental rules of biology and genetics is... like begets like. Offspring resemble their parents. If you want big fancy cows you must use bulls that are big and stylish. If you want cattle with correct feet and legs then use bulls that have and sire that trait. Short round bulls will produce short round offspring. I want the complete package trouble-free structurally correct cattle that are able to score Very Good and Excellent, while producing large records with high fat and protein over several lactations.

Today's dairymen are struggling with decreased milk prices and increased input costs. Using the correct bulls to complement their cows' faults can help increase the farmer's bottom line. The first thing I look for in sire selection is type. Holstein Canada looked at their data and found a correlation between production and classification score. In a study done on animals scored between August 2005 and April 2006 they found an advantage of 2,824 lbs. of milk for cows that scored 85-89 points over cows that scored 60-64 points. Just increasing the score from breed average (78.6) to 80 points can increase production by over 500 lbs. A similar study was done by the Spanish Holstein Association. In the Spanish study they found an 881 lb. advantage for cows that scored 80 points as compared to cows that scored 78 points. In another region of Spain the advantage for the higher scoring cow was 1,102 lbs.

	60-64	65-69	70-74	75-79	80-84	85-89
305 Milk	17,769	17,980	18,311	18,686	19,195	20,593
305 Fat	641	659	670	685	709	773
305 Protein	564	573	586	606	617	663
Dev. Milk	-7.2	+1.6	+2.9	+4.8	+7.8	+16.5
Dev. Fat	-12.1	+0.9	+2.2	+3.9	+7.0	+15.0
Dev. Protein	-7.9	+2.3	+3.8	+6.1	+8.9	+17.3

Holstein Canada also compared first lactation scores to the number of lactations completed in a study conducted from March of 1998-October of 1998. Cows scoring 60-64 points averaged 1.69 lactations while cows that scored

85-89 points averaged 3.78 lactations. These studies justify a breeding program that emphasizes type as production and longevity with follow.

Score	Avg. # of Lactations	Std. Dev.
60-64	1.69	1.09
65-69	2.12	1.36
70-74	2.23	1.43
75-79	2.65	1.58
80-84	3.14	1.71
85-89	3.78	1.83

When I am asked to select a service sire I focus on bulls that sire excellent udders, strength, and correct feet and legs. I especially want bulls that sire quality high wide rear udders with good cleft and attachments. You can't emphasize udder enough. The cardinal rule in dairy judging is you're in doubt, you pick the cow with the best udder. I also believe strength and power are critical for a cow to be able to withstand the stress of high production. The Holstein Association also realized this when they revamped the score card to make the dairy strength category. We need to move away from the ultra dairy cow that works herself to death and reward the hard working cow with tremendous width of chest that is able to sustain high production without sacrificing reproductive performance or health. Outstanding feet and legs are also important to longevity and profitability. Correct set to the hock, deep

heels, and cows that track straightly are much more likely to get to the feed bunk and move more easily through the barns. However, if not too bad, feet and legs can be managed with routine corrective hoof trimming, but are still something worth monitoring and protecting in the breeding program.

The Bulls Selected

I also like to see good cow families behind a bull. Deep pedigreed perennial show cows with longevity and a strong breeding pattern are typically the families I try to breed from and work with. Below is a chart containing the four bulls I would incorporate into this herd's breeding program. As you can see I am trying to exploit the red gene in this herd to increase the marketing and possibly showing opportunities. I am typically not a big risk taker, as it may be difficult to tell due to the fact that I have listed four young sires. If I was to incorporate a proven bull into the program I would use Valleyriver Ruben Redman-Red. He has that moderate size and width that would do well in a freestall setting. He also has incredible udders and his daughters are slow maturing, which will help keep them in the herd for several lactations. However, being a Rubens out of a Chief Mark I would use him on daughters of September Storm, Outside, or something with good feet and legs and extra stature.

Name	Lbs Milk	% Fat	Lbs Fat	% Prot	Lbs. Prot	Type Comp	Udder Comp	F & L Comp	PL	C E	Price
Comestar Lauburns RC	+582	+0.07	+41	+0.04	+28	+3.30	+1.70	+2.52	-1.9	12	\$12
Apples Absolute-Red CV	-728	+0.16	+16	+0.12	+10	+3.15	+2.95	+2.45	+2.9	10	\$14
Damartini Attitude-Red	-263	+0.07	+8	+0.04	+3	+2.43	+2.10	+1.77	+4.4	10	\$10
Lookout P Red Burst-Red	+380	+0.05	+28	+0.06	+28	+3.41	+3.08	+2.45	+3.4	8	\$12

In no particular order, the first bull I selected was the Semex bull, Comestar Lauburns RC. He is one of just a few red factored Comestar Laurie Sheiks. This family that has had endless success creating the balanced no holes kind of offspring with bulls like Lee, Leader, Outside and Stormatic to name a few. Lauburns is the red factored brother to Comestar Lauthority. At \$12 he is much cheaper than his popular brother and you get the added bonus of being red factored. I might also speculate that being a Mr. Burns son you will get a more correct foot and leg than Lauthority. I would use this bull on Goldwyn, Durham, or Roy bloodlines

The second bull I selected is marketed by Taurus. Apples Absolute-Red, is the red Talent son from the million dollar cow KHW Regiment Apple-Red. Like the first bull he has high components with high type, and a high foot and leg, and udder composite. But, Absolute provides more moderate stature. As this family has produced the showing icon KHW Advent-Red, I expect Absolute to create stylish silky cows with big square rumps and welded on udders. This bull is CVM positive, and with the lowest milk production of the group he may receive more limited use, but at \$14 from another respected cow family I think we can find a place to use him successfully. I would use him on a powerful milky cow that needs more style. Typical daughters of Morty, Blitz, or Shottle should work well.

The third bull I selected is ABS's Damartini Attitude-Red. Here we get the great Tri-Day Ashlyn influence. Ashlyn's showing accomplishments are astounding, but even more impressive is the fact that she has 21 Excellent daughters to date with many more to come. Attitude is a \$12 Destry son from a Shottle, from a Talent daughter

of Ashlyn. I expect the great Ashlyn frame and size with strong components and better calving ease than some of the Ashlyn sons. I would use this bull on the daughters of Pontiac, Ito, Baxter or other similar cows.

The fourth bull, from Semex is Lookout P Red Burst-Red. With this bull I get a red Regancrest Barbie and a smaller price tag than Braxton. Red Burst-Red is another \$12 Destry son. But, this time the dam is a VG-87 Canadian Mr. Burns from the former #1 type cow of the breed Brea, who is a Shottle daughter of Barbie. ABS should be coming out with a similar bull from the same cross and cow family. I expect this bull to transmit the great udder and balanced type pattern of Barbie. I would use him on the Encore, Hillcrest, or Advent bloodlines.

Improving Production

I am a believer in the phrase breed for type and feed for production. In a breeding program in addition to type I emphasize components. Your milk check is paid in pounds of fat and protein. High components are also favorable to foreign markets. You will notice some of the bulls I incorporated in the breeding program are very minus in milk production, but they are all positive for component percent and pounds. My goal is to achieve a 25,000 pound rolling herd average with a 4.0% fat test and a 3.3 protein test. To accomplish this I will continue breeding for components and longevity. I would also like to look at the ration. I like to see a minimum of 50% of the ration is made of forages. I might also recommend having the corn silage processed, which would increase digestibility. Grinding the high moisture corn into a powder would also help increase digestibility. These suggestions could help increase component percent while also benefiting rumen health and possibly decreasing feed costs and number of DA experienced.

Measuring Success

I would like to increase the herd's BAA to 106 or 107. Currently, over half the herd's cows fall into the Good Plus or below categories. Emphasizing type, sire stacks, and cow families in the breeding program should yield more Excellent and Very Good cows. With higher type I hope to have increased longevity, which will increase the number of extra animals we have to market each year. I see no reason for the red market to decline. With an emphasis on cutting-edge red genetics I hope we can increase our marketing area and derive 20% of our income from the sale of genetics. Achieving excellent type will also improve worker pride. To know you are working with something extra special should encourage everyone to do their best whether it be milking, feeding calves, mixing feed or whatever the task. This improvement in quality of work could have a compounding effect on the farm's productivity and profitability.

I have incorporated many of the Holstein breed's best and most respected cow families while using only red and red factored bulls. In a time when we need to watch every dollar we spend I can proudly say that I did not use a bull that costs over \$20. My confidence in the cow families that I implemented and the genomic proof of these bulls reassures me that I have improved the breeding program of this herd to the best of my abilities at this time. It would be nice to incorporate some of the \$40-\$50 bulls like Regancrest S Braxton, Pine-Tree Sid, Comestar Lauthority and Gillette Windbrook, but for now I will save the money and infuse the red gene into the herd. But, I will never sacrifice type or strong cow families.

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