Maximizing Your Contemporary Groups

By Patrick Wall, Director of Genetic Improvement

Contemporary groups are truly the cornerstone of any genetic evaluation. Unfortunately, as the popularity of EPDs grew, no one took the time to explain the value of contemporary grouping to the vast majority of breeders. The following paragraphs outline a few cardinal rules to follow when establishing contemporary groups. Your decisions can impact the potential value and EPDs of every animal in your herd.

Rule #1: It Takes Two.

The basis of genetic evaluation is a comparison of animals given the same environmental opportunities. No matter how proud you may be of your top animal, his/her performance information has no value by itself and no impact on the EPDs of the elite animal, his/her sire or dam, relatives, etc. Individual animals need at least one other pen mate with which to compare. There are some additional breed, sex, and age requirements to follow in order to make animals true contemporaries. As the number of animals in a contemporary group goes up, the power of the information increases. In turn, EPDs will change at a faster rate and EPD accuracies will increase, moving cattle closer to their "true" genetic estimate.

Rule #2: Contemporary Groups Never Get Larger.

As cattle age, breeders make decisions that determine the fate of each calf in the herd. In many cases, the decision is performance based, keeping the faster growing genetics back in the herd. Contemporary groups are established at birth on the original farm or ranch where the calf was born. Purchased cattle obviously come from different operations, so they can never be contemporaries of your own home-raised progeny. Even if the animals are fed in the same pen since weaning, their environmental opportunities (and their mother's) were different prior to that, potentially affecting performance traits. In the complex matrix of performance records, herd of origin is the first limiting step in determining contemporary groups. As a result, any weaning and yearling data collected can dramatically influence the EPD profile of sires and dams.

Rule #3: The Bad Ones Make The Good Ones Better.

This statement seems like an oxymoron of sorts, but the disadvantages of selective reporting cannot be made any clearer. Many breeds are migrating to a performance system that mirrors the ASA Whole Herd Reporting (WHR) system, only participation is required. This system encourages breeders to submit ALL records for their calf crop, creating a data set that is a much truer reflection of the herd's genetic value. Reporting only calves that remain in the herd skews data and actually hurts the resulting EPDs of the most elite progeny. For example, in order to maximize the benefit of EPDs, weaning weights should be reported on all live calves prior to making culling decisions. The resulting ratios of the heaviest calves go up, and in turn, Weaning Weight EPD.

Make Fair Comparisons.

The basic numbers that establish an animal's performance profile are only as good as the person submitting the information. However, in some cases, breeders are unknowingly misleading themselves. Proper contemporary grouping and data submittal ensures more accurate EPDs and increases the chances for happy, repeat customers. At birth, it's important to compare calves born in similar environments. January babies should not be compared to April calves born in much warmer conditions as climate and temperature affects birth weight. If bulls or heifers are pulled away from contemporaries to be prepared for sale or exhibition, they should immediately be put in their own 1 head contemporary group from that day forward. In the case of females,

reporting a hefty weaning weight from a show heifer against others being fed less could devastate her Milk EPD as a mature cow. Her data suggests she should wean the heaviest calf, but her genetic ability does not allow that to happen. Other treatments like creep feeding will also impact performance and should separate contemporaries.

What Can I Do?

The following example explains how to maximize contemporary groups in a small herd without sacrificing data integrity.

ID	DOB	Sex	BW	WW	YW	SC	Fat	REA	IMF	Group
1	12/27	M	90	580	1190	37	.20	12.4	4.19	A
2	1/7	M	86	600	1275	39	.20	13.7	2.92	A
3	1/8	M	109	610	1250	40	.15	12.9	3.25	A
4	2/5	M	87	540	1170	35	.25	11.9	3.99	A
5	3/27	M	78	500	1000	35	.25	13.0	2.90	B
6	3/28	M	88	420	1010	39	.18	10.9	3.05	B
7	4/2	M	105	510	1175	39	.20	14.5	2.10	B
8	4/18	M	80	490	990	34	.15	10.7	3.89	B
9	4/19	M	93	450	975	36	.29	10.5	2.42	B
10	4/22	M	77	475	980	35	.22	9.9	3.75	B
11	1/15	F	82	550	1000		.27	11.5	3.95	A
12	1/27	F	68	420	875		.30	10.2	4.79	A
13	1/31	F	93	450	785		.19	8.4	2.74	A
14	2/30	F	72	410	750		.25	9.2	3.92	A
15	3/10	F	69	425	800		.25	9.1	6.56	B
16	3/11	F	78	390	725		.15	7.9	3.33	B
17	4/12	F	89	400	825		.30	8.0	4.27	B

The following calf crop of 17 head has been properly split into 4 contemporary groups based on sex and date of birth. (Reader's Note: All male calves should be reported as bulls, even if castrated at birth to avoid an unnecessary contemporary group break. Change bull calves to steers at weaning, regardless of castration date.) If these records had been submitted differently, the resulting groups may be different by ASA system default. For example, if submitted one at a time, the December bull may have been separated to his own group, and no performance records would result in EPD changes. If all submitted together, the system would count 90 days from the oldest animal and separate the group between animals #5 and #6, even though they were born one day apart. In the case of heifers, animal #17 would have been sorted by itself, again eliminating any EPD accuracy change. When calving intervals exceed 90 days, animals should be split in at least two groups to avoid the above cases. Consult an ASA representative if you need help establishing contemporary groups at any reporting stage.