

Contemporary Groups: Creating Fair Comparisons

By Lauren Hulsman

You have most likely heard or read the term “Contemporaries” or “Contemporary group,” but do you really know what is meant by these terms? Or why grouping an individual with others correctly is so important? In managing your cattle, breeders should be aware of what their contemporary groups are each season and how to accurately record and report data.

What are Contemporary Groups?

A contemporary group is a set of animals grouped together based on shared characteristics during a particular phase in their life. Many times contemporary groups are formed at calving season, especially within the cow-calf sector, but groups can be created at any time point in life. Once a contemporary group is formed, breeders can no longer add animals to the group, but animals can be removed from the group due to culling and/or death.

What are these “shared characteristics” exactly?

These shared characteristics are based on creating a fair comparison. For instance, a set of embryo transfer calves were raised by recipient dams. Would you expect a difference at weaning if a group of these calves were raised by recipient Holstein dams and the other by recipient Charolais dams? Of course you would. One such reason is that the Holstein cows have a much higher milk production and would directly impact performance of those calves compared to Charolais cows. Without accounting for this contemporary group effect (i.e., Holstein versus Charolais recipient dam) a fair comparison of calves in this scenario could not be made. The same can be applied when using Brahman purebred or crossbred cows.

Contemporary groups can be formed based on a number of situations or characteristics besides the example given. For instance, age of calf can be used to create a contemporary group, where calves’ age differences should be within a 180 day window (120-300 days are BHIR standards) for optimal comparisons. Keeping this range ensures that animals experience similar management and environmental influences. Calves that fall outside of this range, when compared to the oldest (or youngest) animal, are not as easily compared to the entire group. If, within a calving season, animals have age differences greater than 180 days, then the best option is to split those calves into 2 or more groups depending on the number of calves and the age range. Keep in mind, however, that you should use as few groups as possible and maximize the number of calves in each group for improved comparison. The minimum number of animals per contemporary group required for enrollment in the Brahman Herd Improvement Records (BHIR) program is 2 calves, but breeders should strive for more.

In addition to grouping based on age, sex of the calf and management conditions can further create contemporary groups. Examples include service type of dam (i.e., natural service, artificial insemination or embryo transfer), type of feed (i.e., natural, creep fed, show feed ration, etc.), calves managed by sex after weaning (e.g., bulls, heifers, steers), calves sent to feedlot versus pasture after weaning, calves stockered as a group, or other herd, sex, and/or year criteria that may cause animals to experience different conditions regardless of age. Environmental conditions are often related to management decisions, and contemporary groups can be formed based on these decisions. An excellent example is spring-born versus fall-born calves, which are usually reared and managed separately due to age differences and environmental influences. Each production trait of interest may require different or additional contemporary group data. The Beef Improvement Federation manual (9th Edition) provides excellent examples of contemporary group criteria for important production traits and can be downloaded from their website (<http://www.beefimprovement.org/PDFs/guidelines/Guidelines-9th-Edition.pdf>). Keeping accurate and informative records on each animal related to these characteristics will help not only your breed association provide those fair comparisons, but also to help you, the breeder, with your selection decisions.

What contemporary group criteria do you report already?

The American Brahman Breeders Association (ABBA) has integrated several steps in registering your Brahman cattle to ensure that certain aspects of contemporary groups are accounted for. Registration of your Brahman cattle includes breeder or member code, sex, birth date, and type of service as required information, all of which can be used to create contemporary groups of the registered cattle. One particular note that needs to be made is all possible data from a breeder or member should be reported to ABBA, not just a subset of your cattle. Only reporting data on superior or registered animals will bias results and not provide a complete overview of how superior (or inferior) an animal actually is. Because of this, all animals should be enrolled in the BHIR program regardless of registration status. Enrolling each animal also adds weaning information like date weighed, the management code related to how the calves were handled up to weaning, and the optional “Group Code” that allows breeders to specify other contemporary group criteria.

Does contemporary group information impact animal summaries and expected progeny differences (EPDs)?

In short, Yes! Contemporary group information accounts for conditions that may differ within and between operations so that animals can be genetically compared to each other. Without this information, summaries and EPDs will not give the breeder a complete look at the performance of a particular individual or related individuals. In other words, not accounting for contemporary group effects allows for more errors in performance summaries and EPDs than if contemporary group information is included. An equally important note to make is that EPDs are only estimates, and with estimates naturally comes errors. Although EPDs aid breeders in selecting desirable breeding individuals, this should always be used in conjunction with a selection program and all available information, not just EPDs. This is especially true if contemporary groups are not properly accounted for.

Strategies for Reporting Contemporary Groups

Physically separating calves by age, sex, or other management decisions would be ideal but not necessarily practical for every breeder. Keeping written records of different treatments between calves or animals regardless of physical grouping is a practical and important strategy for breeders. The majority of necessary information will be reported when registering or enrolling your Brahman cattle with ABBA, but breeders should take advantage and report any additional contemporary group information using the optional “Group Code” when typical registration and enrollment information does not describe calves within your herd completely.

For more information about the formation of contemporary groups and the listing of the management codes download the BHIR Manual or request one from the ABBA Office.