

The Oklahoma Cooperative Extension Service Bringing the University to You!

The Cooperative Extension Service is the largest, most successful informal educational organization in the world. It is a nationwide system funded and guided by a partnership of federal, state, and local governments that delivers information to help people help themselves through the land-grant university system.

Extension carries out programs in the broad categories of agriculture, natural resources and environment; family and consumer sciences; 4-H and other youth; and community resource development. Extension staff members live and work among the people they serve to help stimulate and educate Americans to plan ahead and cope with their problems.

Some characteristics of the Cooperative Extension system are:

- The federal, state, and local governments cooperatively share in its financial support and program direction.
- It is administered by the land-grant university as designated by the state legislature through an Extension director.
- Extension programs are nonpolitical, objective, and research-based information.
- It provides practical, problem-oriented education

for people of all ages. It is designated to take the knowledge of the university to those persons who do not or cannot participate in the formal classroom instruction of the university.

- It utilizes research from university, government, and other sources to help people make their own decisions.
- More than a million volunteers help multiply the impact of the Extension professional staff.
- It dispenses no funds to the public.
- It is not a regulatory agency, but it does inform people of regulations and of their options in meeting them.
- Local programs are developed and carried out in full recognition of national problems and goals.
- The Extension staff educates people through personal contacts, meetings, demonstrations, and the mass media.
- Extension has the built-in flexibility to adjust its programs and subject matter to meet new needs. Activities shift from year to year as citizen groups and Extension workers close to the problems advise changes.



Megan Rolf
Assistant Professor

Tom Smith
Extension Educator, Agriculture

Purchasing bulls and replacement females from a reputable breeder pays; however, many forego using this information to choose the best animals because it can be overwhelming. Knowing how to properly work through a sale catalog is paramount to success in choosing a herd bull, cleanup sire, or replacement heifers. Understanding the expected progeny difference (EPD) and performance measures listed in sale catalogs can seem daunting, but these ten tips will help make the process easy and painless:

Before the Sale

1. Decide on your traits of interest and your "deal breakers."

Before requesting sale catalogs, it is a good idea to make some decisions about which traits are a priority in your production system. Consider the amount of labor and resources (forage, grain, etc.) available and decide which traits might be limiting in your environment. For example, if you work off the farm or ranch, you may not have the labor resources available to monitor and assist with calving problems, so calving ease EPDs would be a priority. Another example would be limited forage availability, making the selection of animals with moderate growth rates, smaller mature size, and moderate milk production (i.e. moderate yearling weight and milk EPDs) your focus. Also consider when you will sell the cattle, as this will dictate which output traits are important. If selling at weaning, the weaning weight EPD may be of utmost importance, whereas if you are retaining ownership, some selection on carcass traits would be warranted. If raising your own replacements, make sure to place some selection emphasis on maternal traits. If you have a terminal breeding system and will not keep replacements, you do not need to place any emphasis on maternal traits for bull selection.

Once important traits are identified, decide which ones are "deal breakers." These will be traits that would reduce the ability of the cattle to fit your environment and production system. For example, if you are keeping replacements for a harsh environment, you may select only sires in the top 15 percent of the breed for calving ease and no higher than breed average for mature height/weight (or yearling weight) and milk production. You may wish to keep your desired EPD ranges for the traits you

Ten Tips for Utilizing A Cattle Sale Catalog

Oklahoma Cooperative Extension Fact Sheets
are also available on our website at:
<http://osufacts.okstate.edu>

are interested in on a small card in your wallet to refer back to both looking through the catalog and later at the sale.

2. Decide on a breed to achieve your goals.

If you have not already selected a breed, consider which breeds will best fit your production system and selection goals that you developed in tip 1. It is easier to identify a breed with the strengths you are looking for than to try and find bulls or females within a breed which has poor performance (on average) for a trait you are interested in improving. This is where appropriate use of crossbreeding to capitalize on breed complementarity can be valuable. To help select a breed, consider the information in Figure 1. When buying females, it is a good idea to consider taking advantage of heterosis by purchasing crossbred females. Crossbred females have, on average, better fertility, 600 additional pounds of cumulative weaning weight and almost one additional calf over their lifetime when compared to purebred cows.

3. Do a Background Check.

Getting the catalog in advance, most likely through the mail, will give you ample time to look through the performance information and other pertinent material. The ultimate goal is to narrow down the number of bulls which need to be visually examined by using their performance and EPD data. Thoughtful completion of this process takes time, so it is imperative to obtain the catalog well in advance of the sale. Animals that have pedigrees indicating that they are closely related to large numbers of animals (i.e. out of the same sire) within your herd should be eliminated to avoid inbreeding depression and expression of genetic defects. It may also be useful to visit the ranch where you wish to buy a bull or female so that you can examine their management practices and view the cowherd. If the breeder's herd is managed similarly to your own and has a cowherd that looks like you want yours to look, it is probably a good place to source genetics. If you intend to retain replacement females, closely examine the dams of your potential purchases. In addition to conformation and mature size, inspect the udder attachment and teat size, as these factors influence the longevity of animals in your herd. Also request to see

Breed ^{a,b} Group	Growth Rate and Mature Size	Percent Retail Product	Age at Puberty	Milk Production
Jersey	X	X	X	XXXX
Longhorn	X	XXX	XXX	XX
Angus	XXX	XX	XX	XXX
Herford	XXX	XX	XXX	XX
Red Poll	XX	XX	XX	XXX
Devon	XX	XX	XXX	XX
Shorthorn	XXX	XX	XXX	XXX
Galloway	XX	XXX	XXX	XX
South Devon	XXX	XXX	XX	XXX
Tarentaise	XXX	XXX	XX	XXX
Pinzgauer	XXX	XXX	XX	XXX
Brangus	XXX	XX	XXXX	XX
Santa Gertrudis	XXX	XX	XXXX	XX
Sahiwal	XX	XXX	XXXXX	XXX
Brahman	XXX	XXX	XXXXX	XXX
Nellore	XXX	XXX	XXXXX	XXX
Braunvieh	XXXX	XXXX	XX	XXXX
Gelbvieh	XXXX	XXXX	XX	XXXX
Holstein	XXXX	XXXX	XX	XXXXX
Simmental	XXXXX	XXXX	XXX	XXXX
Maine Anjou	XXXXX	XXXX	XXX	XXX
Salers	XXXXX	XXXX	XXX	XXX
Piedmontese	XXX	XXXXX	XX	XX
Limousin	XXX	XXXX	XXXX	X
Charolais	XXXXX	XXXX	XXXX	X
Chianina	XXXXX	XXXX	XXXX	X

a Adapted from Cundiff et al. 1993.

b Increasing number of X's indicate relatively higher levels of trait.

Figure 1. Table from NBCEC Sire Selection Manual, 2nd Edition.

<http://www.nbcec.org/producers/sire.html>

their production records (which is often called a “dam summary”) to verify the dams’ fertility and performance of other offspring.

4. Examine guarantees, delivery, and other information.

Most cattle sold through a seedstock sale will have associated guarantees through their breed association, through the producer themselves, or both. This information is frequently listed in the front of the sale catalog. Make sure that the animals are guaranteed to be breeders and that a breeding soundness examination has been performed on all bulls. If you are considering non-virgin bulls, make sure they tested negative for trichomoniasis. In addition, consider pickup (whether they will hold the cattle or if they must be picked up sale day) and delivery information (trucking arrangements, etc.). Some larger producers may also have buyback or other marketing opportunities for calves sired by their bulls. If you have questions about the guarantee, delivery procedures, or other questions about the cattle, do not hesitate to contact the seedstock producer or the sale management. They have a vested interest in making sure that potential buyers are knowledgeable about the services being offered to them. An example of what this information may look like is included in an excerpt from the OSU Cowboy Classic Sale (Figure 2).

5. Eliminate those animals which do not have acceptable performance for your deal breakers.

When beginning to sort through the performance data, any animals possessing characteristics that are not consistent with your production goals should be eliminated from consideration. Those traits and characteristics identified as deal breakers should be given comparatively more weight than other goals in the breeding objective. For example, you may wish to eliminate any bulls that you would not consider “calving ease” if he is to be used on heifers. If cows with large mature size or high milk production are a deal breaker in your environment, you may wish to choose animals that are at or below breed average for mature size EPDs (or alternatively yearling weight for those breeds that do not have mature size

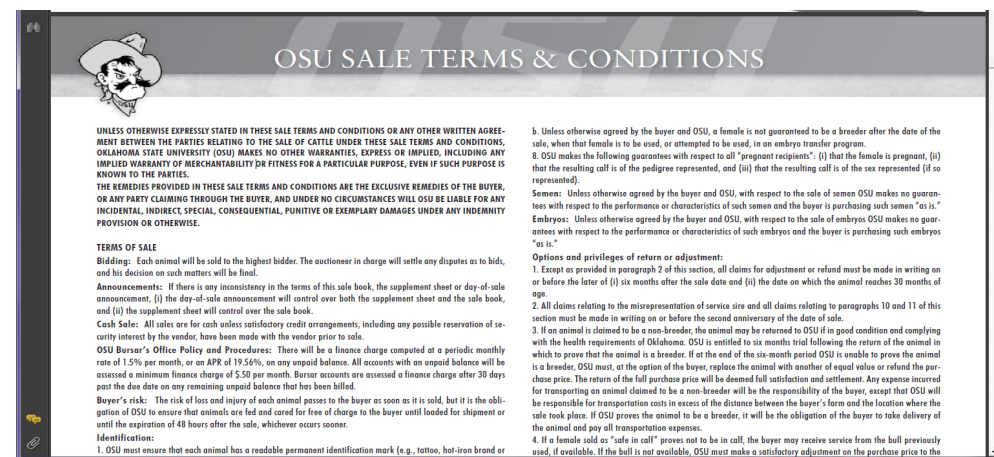


Figure 2. Sample of OSU's Cowboy Classic Sale terms and conditions.

CED	BW	WW	YW	MA	CEM	SC	ST	DOC	CW	REA	YG	MARB
12	0.0	54	86	17	1	0.8	N/A	N/A	39	0.63	-0.03	0.00
0.16	0.35	0.29	0.15	0.15	0.15	0.13			0.20	0.18	0.18	0.18
15	0.8	54	88	19	5	0.3	N/A	27	31	0.60	-0.10	-0.06
0.20	0.35	0.23	0.19	0.18	0.19	P		P	P	P	P	P
17	-0.7	53	89	21	4	0.2	N/A	25	35	0.78	-0.17	-0.08
0.35	0.46	0.39	0.28	0.21	0.25	0.34		0.25	0.40	0.36	0.36	0.36
12	3.1	53	90	18	6	-0.4	27	14	49	1.02	-0.24	-0.02
0.59	0.67	0.58	0.41	0.29	0.57	0.32	P	0.44	0.45	0.41	0.41	0.40
17	0.5	53	88	20	7	0.3	N/A	19	37	0.68	-0.10	-0.05
0.15	0.33	0.20	0.15	0.12	0.13	P		P	P	P	P	P
13	0.3	53	88	19	7	0.4	N/A	17	40	0.89	-0.18	0.00
0.20	0.36	0.30	0.25	0.21	0.20	0.29		P	0.22	0.21	0.21	0.21
16	-0.3	52	90	20	3	0.2	N/A	27	34	0.69	-0.14	-0.04
0.22	0.35	0.23	0.18	0.16	0.22	P		P	P	P	P	P
16	1.0	52	87	15	6	0.2	26	2	39	0.84	-0.19	-0.08
0.26	0.26	0.22	0.19	0.19	0.24	P	P	P	P	P	P	P
13	0.1	52	87	20	7	0.6	N/A	N/A	N/A	N/A	N/A	N/A
0.13	0.32	0.17	0.12	0.13	0.13	P						
10	0.8	52	89	17	5	0.8	26	11	28	0.62	-0.19	-0.11
0.28	0.48	0.34	0.25	0.23	0.25	0.31	P	0.25	0.41	0.37	0.37	0.36

Figure 3. Search results from a North American Limousin Foundation Sire Selector tool.

EPDs) and milk EPDs. Breed averages should be listed on each breed's website, in the sire summary from the association, or may be listed in the catalog itself. Percentile ranks can be obtained from every breed association's website.

6. Identify the animals within your optimal EPD range for your traits of interest.

After animals inconsistent to environmental and production concerns have been removed (the deal breakers), identify the animals that have EPDs within optimal ranges for the other selection criteria. Good ways to identify what EPDs may be optimal include decision support tools (such as the Angus Optimal Milk Module or Colorado State's ERT Tool, for example) or EPD percentile ranks in each breed's sire summary. With “deal breaking” animals already removed, simply select for EPDs with the most favorable values for the traits in your selection criteria. Remember that multiple-trait selection is essential, but the more traits being selected, the harder it is to find animals that meet all your requirements and the less genetic progress you will make in any one trait. For example, a sire selector tool returned only 10 results when the selection criteria were top 25 percent for CED and WW and below the top 30 percent for MA and 40 percent for YW (selecting for high calving ease and weaning weight while limiting milk production and mature size).

7. Rank the bulls according to how well their EPD profile fits your production system.

After eliminating deal breakers and identifying percentile ranks for EPDs for the remaining selection criteria, rank your interest in the bulls or females according to their EPDs, considering all traits in the selection criteria at one time. Some traits may have antagonistic relationships (such as calving ease vs. growth or maintenance energy vs. milk production), so getting a feel for which bulls or females have the optimal EPDs for all traits of interest is a vital step in choosing animals on which to place bids.

At the Sale

8. Visually evaluate the animal.

Evaluate the bulls or females that you previously ranked to assess their fitness for traits in which EPDs are not offered. Examples of traits commonly evaluated using only the animal's phenotype include conformation, soundness, and fluidity of movement, and docility, among others. Eliminate any animals not sound and those that may have limitations in your environment due to physical characteristics. Also eliminate animals that possess a disposition that is unacceptable to you. You should now have a final ranking of the bulls or females.

9. Look at Sale Order and Supplemental Sheets.

Make sure to pick up supplemental information sheets and the sale order. Supplemental sheets will contain any corrections to the catalog and may include updated weights, DNA testing information, pregnancy data, or ultrasound data not available at the time the catalog was printed. This may eliminate additional animals from your list. Additionally, find the sale order for the bulls and compare it to your final ranking. With luck, the sale order of the bulls you're interested in will be consistent with your ranking.

10. Devise a strategy for bidding.

Strategize your purchasing decision given your rankings and the sale order. Knowing the average from the previous year's sale and/or the range of prices for those bulls or females may be useful in helping define your budget. If you have a relationship established with the breeder, you may be able to obtain additional advice on which animals are in great demand and may be out of your price range, and that information can help you decide whether to wait for a more highly ranked bull later in the sale order, or to go ahead and bid on a lower ranked bull earlier in the sale order.