Cattle
WHOLESALE CUTS OF BEEF

1 -- Brisket: 6%
2 -- Fore Shank: 4%
3 -- Plate: 5.5%
4 -- Flank: 4%
5 -- Hind Shank: 3%
6 -- Round: 21%

7 -- Rump: 3%
8 -- Sirloin: 9%
9 -- Short Loin: 6%
10 -- Rib: 8%
11 -- Short Ribs: 1.5%
12 -- Chuck: 26%
Breeding Heifers
A good breeding heifer, regardless of breed, should be moderate in frame size, long bodied and deep ribbed. She should be wide chested and have spring and shape through her rib cage allowing for heartiness and doing ability. She should have at least and adequate degree of muscle thickness through her top, rump and hind-quarter. She should display a feminine appearance as evidenced by length and refinement through her head and neck, smoothness of shoulder and a smooth tail head with proper vulva size and placement. In older heifers, udder quality as indicated by refinement of teats and strong udder attachment is desired. A good heifer should be strong in her top line and level rumped, set wide through her pins and uniform in her depth from fore-rib to flank. She should display excellent structural soundness by having a correct slope of shoulder and set and flex to pasterns, knees and hocks. This structural correctness should allow her to move strong and easy, taking a long, wide stride so that the rear hooves step in the track of the front hooves when walking at a normal pace.

Breeding Bulls
A modern bull, regardless of breed should be made very similar to the heifer described above. A modern bull should have a powerful appearance with excellent composition as evidenced by a large volume of muscle dimension through his top, rump and quarter, and a correct degree of condition. He should be masculine and rugged with two large, even size testicles.

Priority Traits in Placing Breeding Cattle
There is no one genotype, breed, or kind that is perfect for all beef production situations. In performance classes a production scenario will be provided to give specific details as to how seedstock will be utilized and thereby indicate which performance traits should be given more attention in a placing. In the typical non-performance class cattle are always evaluated as purebred seedstock according to the ideal for their age, sex and breed. In any breed, sex or age the following traits are important when evaluating cattle:

- **Structural Correctness** - shoulder, rump, knee, hock, pastern, & hoof structure as it relates to movement and cattle’s ability to function as ruminants.
- **Volume** - body capacity as it relates to the animals heartiness and doing ability.
- **Balance (Quality)** - Straightness of lines, equalization of body parts, weight distribution.
- **Growth** - the ability to gain weight rapidly within a range of moderate frame scores. Critical of extremely small and extremely large frame sizes.
- **Sexual Characteristics** - refinement in heifers and masculine appearance in bulls. Specifically, testicular development is very important in breeding bulls.
Judging Market Steers

- **Muscle**
  - Evaluate for shape, thickness through the forearm, loin, rump, and hind-quarter.

- **Structure**
  - Evaluate for structural correctness including flex of hock, correctness of shoulder, and ease and comfort when on the move.

- **Balance**
  - Evaluate for straightness of lines, equalization of body parts and weight distribution.
  - Steers should have volume, depth, and carry a high percentage of weight through their top, rump, and high-quarter.

- **Correctness of Finish**
  - Evaluate for amount and uniformity of external fat to correlate with quality grade.
  - Steers should have approximately .4 inches of fat at the 12th rib.
Breeding Cattle

Heifers

General Terms

1. Heavier Muscled
2. Nicer Balanced
3. More Correctly Structured (whole body)
4. Structurally Correct (feet & legs)
5. More Attractive Profiling
6. More Feminine fronted
7. Higher Volume
8. Wider Made
9. Easier Fleshing
10. Easier Keeping
11. Prove to be more functional
12. Bigger Bodied
13. Lower Maintenance

Light muscled
Poor balanced
Poor structured
Coarse made
Coarse fronted
Low volume
Narrow made
Flat ribbed
Shallow bodied
High maintenance

Neck and Shoulder/Balance

1. More feminine
2. Longer-fronted
3. More youthful appearing head
4. Smoother shouldered
5. Clean fronted
6. Neater fronted
7. Longer neck
8. Attractive fronted
9. Maternal fronted
10. More angular fronted

- She is a more feminine fronted..... longer necked , smoother shouldered
- She is a more feminine appearing, cleaner fronted.... that ties in neater at her neck shoulder junction.
- She is a Nicer Balanced, longer fronted.... that lays in neater about her neck and shoulder.
- She is a Nicer Balanced, more attractive fronted heifer.
- She is a Nicer Balanced, cleaner fronted, longer necked heifer.
- She is a More Attractive profiling longer fronted, smoother shouldered...
- She is a nicer balanced, longer bodied.... that is smoother shouldered, trimmer middled and wider and leveler from hooks to pins.
- She is a more attractive profiling.... cleaner fronted, longer patterned, wider leveler from hooks to pins.
• She is a more feminine appearing, longer fronted heifer, that is particularly longer and leveler from hooks to pins.

Chest & Body/Volume

1. Wider Chested
2. Deeper Ribbed
3. Fuller In ForeRib
4. More Spring Of Rib
5. Deeper Rear Rib & Flank
6. Wider Sprung
7. More Shape To Rib
8. Set Functionally Wider At Pins
9. Deeper Hearted
10. Fuller Hearted
11. Deeper Flanked
12. Fuller Flanked
13. More Functional Width From Hooks To Pins
14. Deeper Chested
15. More Spring Of Rib
16. Most Utter Development
17. Farthest Along in Calf

• She is a Higher Volume.... Wider chested, deeper hearted, and fuller in her rear rib and flank.
• She is a Wider made.... More shape to her rib and is set functionally wider at her pins.
• She is a Bolder sprung.... Deeper flanked and has more functional width from hooks to pins.
• She is an Easier fleshing.... Deeper in her forerib and fuller in her rear rib and flank.
• She is an Easier Fleshing, fuller flanked heifer.
• She should prove to be More Functional, deeper chested heifer.... has more spring of rib, and is set wider from hooks to pins.

Muscle

1. Beefier Topped
2. Bolder Topped
3. Thicker ended
4. More Volume Of Muscle
5. Thicker Quartered
6. Thicker Rumped
7. Squarer Rumped
8. Longer Hipped
9. Deeper Quartered
10. Squarer Hipped
1. Wider, Leveler Hooks To Pins
2. Longer, Leveler Hipped

She is a heavier muscled... as viewed from behind, she is bolder topped, squarer hipped, and thicker quartered.
She is a beefier topped, thicker ended...
She is a bolder topped, thicker quartered....
She is beefier topped, squarer rumped...
She is a heavier muscled... with more volume of muscle through hip and quarter.
She is a heavier muscled, beefier topped heifer that is longer and leveler hipped and has more volume of muscle to her quarter.

Condition

1. Heaviest Condition
2. Crested in Neck
3. Poned Around Tailhead
4. Trim Condition

Structure

1. More Correct Angulation to Shoulder
2. Leveler Hipped
3. Squarer Fronted
4. More Correct Set to Front Feet and Legs
5. More Correct Set and Flex To Rear Hock and Pastern
6. More Correctly Structured
7. Longer Strided
8. Wider Tracking
9. Straight Shouldered
10. Round Hipped
11. Toes Out on Front End
12. Toes In on Front End
13. Hocks In on Hind Legs
14. Extra Set to Hocks
15. More Structurally correct
16. Rolls in Hocks
17. Sickle Hocked
18. Roach Topped
19. Weak topped
20. Easy In Top
21. Breaks Behind Shoulder/In Loin
22. Short Strided
23. Narrow Tracking
24. Bucked Over on Front End
25. Has extra set to her hocks and Over Strides on her hind legs
• She is a more structurally correct heifer... more correct angulation to her shoulder and a more correct set and flex to her hock and pastern.
• She is a more correctly structured heifer... more correct angulation to her shoulder, and is stronger topped, leveler hipped, with a more correct set to her hock and pastern.
• She is a more structurally correct heifer... squarer on her front legs and has a more correct set and flex to her hock and pastern.
• She is a truer moving heifer with a more correct set and flex to her hock and pastern, and is longer strided off of her hind legs.
• She is the poorest structured heifer that is straight in her shoulder, bucked over on her front end and rolls in her hocks.
• She is a structurally incorrect heifer that is toed out, weak topped, narrow from hooks to pins and is hocked in and short strided off of her hind legs.
• She is the poorest structured, heifer that toes in on her front feet and bowed in her hocks.
• She is a poorly structured, weak pastern heifer.... is round in her hip with extra set to her hock and over strides on her hind legs.

Appearance

1. More Rugged
2. More Masculine

Muscle:

1. More Powerfully Constructed
2. More Expressively Muscled
3. More Powerfully Muscled
4. More Expression of Muscle

Testicles:

1. Larger Testicles
2. White testicled (hereford)
3. Twisted Testicles

Sheaths:

1. Cleaner Sheathed
2. More Correct Angulation to Sheath (eared cattle)
3. Larger more pendulous sheath
Steers

Balance

1. Nicer Balanced
2. More Attractive Profiling
3. Higher percentage of weight from his last rib back
4. Stronger topped, leveler hipped
5. Straighter lined
6. More Uniform in his body depth
7. Cleaner fronted, smoother shouldered
8. Longer spined
9. Longer profiling
10. Longer bodied

Finish

1. More Correctly finished
2. Market ready
3. Packer ready
4. Safer grading
5. Mellower handling
6. More uniform in his finish
7. Fuller in his brisket
8. Shows more evidence of fat in his flank and cod
9. Bigger bodied, more correctly finished
10. Furthest from his compositional end point

Muscle

1. More powerfully constructed
2. Heavier muscled
3. Stouter made
4. More expressively muscled
5. Has a beefier shape to his top
6. Thicker ended
7. Works a boulder, more aggressive turn of muscle over his rib and loin
8. Thicker and fuller through his hip
9. Better maintains this muscle advantage further down into his quarter/into the base of his quarter
10. Boulder topped
11. Opens bigger and more muscular in his top shape
12. Plain in his top shape
13. Has more expression of muscle over his rib and loin
14. Has more dimension through his quarter and stifle
National 4-H Livestock Judging Contest
November 14, 2017
Charolais Heifers

Scenario

Rank these heifers in the order they should be selected as foundation females for an elite purebred Charolais operation. The top 50% of bull progeny will be sold to commercial producers who retain ownership of their calves through the feedlot and market them on a grid that pays premiums for yield grade 1-2 carcasses that grade low Choice or better. Outstanding heifer progeny will be sold to junior exhibitors who compete on a national level. Feed and labor resources are abundant.

<table>
<thead>
<tr>
<th>Heifer No.</th>
<th>Birth Date</th>
<th>Birth Weight</th>
<th>Weaning Weight</th>
<th>Yearling Weight</th>
<th>Milk</th>
<th>Ribeye Area (in2)</th>
<th>Marbling</th>
<th>*TSI</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>3/10/16</td>
<td>+2.7</td>
<td>+33</td>
<td>+58</td>
<td>+12</td>
<td>+0.58</td>
<td>-0.22</td>
<td>185</td>
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<td>+70</td>
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<td>+0.51</td>
<td>+0.25</td>
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<td>+1.8</td>
<td>+38</td>
<td>+63</td>
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<td>+0.40</td>
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<td>4</td>
<td>3/30/16</td>
<td>+3.1</td>
<td>+28</td>
<td>+51</td>
<td>+17</td>
<td>-0.17</td>
<td>+0.15</td>
<td>170</td>
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<td>Breed Average</td>
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<td>+0.3</td>
<td>+27.2</td>
<td>+50.2</td>
<td>+9.0</td>
<td>+0.36</td>
<td>+0.07</td>
<td>194.4</td>
</tr>
</tbody>
</table>

*TSI stands for Terminal Sire Index.
Rank these heifers in the order they should be selected as potential replacements for a purebred Red Angus Ranch. Primary income from this operation is derived from the sale of calving ease bulls to commercial cattlemen seeking bulls who excel in maternal traits, including stayability. Thirty percent of female progeny will be kept as replacements and the remaining heifers will be sold as bred heifers to other purebred breeders. Feed and labor resources are plentiful.

<table>
<thead>
<tr>
<th>Heifer No.</th>
<th>Birth Date</th>
<th>Birth</th>
<th>Calving Ease Direct</th>
<th>Weaning Weight</th>
<th>Yearling Weight</th>
<th>Milk</th>
<th>Stayability</th>
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<tr>
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<td>-1.8</td>
<td>+13</td>
<td>+68</td>
<td>+110</td>
<td>+26</td>
<td>+13</td>
</tr>
<tr>
<td>2</td>
<td>3/2/16</td>
<td>-2.1</td>
<td>+14</td>
<td>+64</td>
<td>+103</td>
<td>+21</td>
<td>+14</td>
</tr>
<tr>
<td>3</td>
<td>3/10/16</td>
<td>-0.8</td>
<td>+11</td>
<td>+63</td>
<td>+100</td>
<td>+23</td>
<td>+15</td>
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<td>4</td>
<td>3/28/16</td>
<td>+3.9</td>
<td>-2</td>
<td>+55</td>
<td>+88</td>
<td>+20</td>
<td>+8</td>
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<tr>
<td>Breed Average</td>
<td></td>
<td>-2.0</td>
<td>+5</td>
<td>+58</td>
<td>+90</td>
<td>+21</td>
<td>+10</td>
</tr>
</tbody>
</table>
Simmental Heifers

Scenario

Rank these heifers in the order they should be selected as potential replacements for a purebred Simmental operation. Outstanding heifer progeny will be sold to junior exhibitors who compete on a national level. Secondary income is derived from the private treaty sale of yearling bulls to commercial producers. Feed resources are abundant. Labor at calving time is limited.

<table>
<thead>
<tr>
<th>Heifer No.</th>
<th>Birth Date</th>
<th>Birth Weight</th>
<th>Calving Ease</th>
<th>Weaning Weight</th>
<th>Yearling Weight</th>
<th>Maternal Milk</th>
<th>*API</th>
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<tr>
<td>1</td>
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<td>+6.1</td>
<td>-2.6</td>
<td>+73.6</td>
<td>+98.7</td>
<td>+18.6</td>
<td>120</td>
</tr>
<tr>
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<td>2/28/16</td>
<td>+1.6</td>
<td>+10.9</td>
<td>+72.9</td>
<td>+97.2</td>
<td>+22.2</td>
<td>124</td>
</tr>
<tr>
<td>3</td>
<td>3/17/16</td>
<td>+1.4</td>
<td>+12.2</td>
<td>+66.2</td>
<td>+93.5</td>
<td>+25.5</td>
<td>126</td>
</tr>
<tr>
<td>4</td>
<td>4/04/16</td>
<td>+1.2</td>
<td>+14.4</td>
<td>+63.4</td>
<td>+90.4</td>
<td>+27.4</td>
<td>121</td>
</tr>
<tr>
<td>Breed Average</td>
<td></td>
<td>+1.8</td>
<td>+9.2</td>
<td>+62.0</td>
<td>+90.2</td>
<td>+21.0</td>
<td>120.9</td>
</tr>
</tbody>
</table>

*API stands for All Purpose Index.
National 4-H Livestock Judging Contest

November 15, 2016

Simmental Heifers

Scenario

Rank these heifers as they should be selected as potential replacements for a SimAngus operation in the Southeast region of the U.S. These heifers will be mated to Angus bulls to produce registered SimAngus replacement heifers and bulls that are sold through on-line sales. This herd is known for raising low input, high performing cattle that are eye appealing and popular in commercial crossbreeding programs. Feed and labor resources are limited on an annual basis.

<table>
<thead>
<tr>
<th>No.</th>
<th>Birth Date</th>
<th>Birth Weight</th>
<th>Weaning Weight</th>
<th>Yearling Weight</th>
<th>Maternal Milk</th>
<th>API</th>
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<tbody>
<tr>
<td>1</td>
<td>09/03/15</td>
<td>1.4</td>
<td>63.6</td>
<td>89.3</td>
<td>20.2</td>
<td>128.7</td>
</tr>
<tr>
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<td>09/10/15</td>
<td>2.6</td>
<td>62.6</td>
<td>91.0</td>
<td>25.9</td>
<td>130.7</td>
</tr>
<tr>
<td>3</td>
<td>10/02/15</td>
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<td>53.4</td>
<td>84.2</td>
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<td>118.2</td>
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<tr>
<td>Breed Average</td>
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<td>62.4</td>
<td>90.6</td>
<td>21.2</td>
<td>122.7</td>
<td></td>
</tr>
</tbody>
</table>

API = All Purpose Index
**Maine-Anjou Heifers**

Rank these Maine Anjou heifers in the order they should be selected as potential replacements for a commercial operation located in the Midwest. These heifers will be mated to Angus bulls. The top 20% of female progeny will be retained as replacements. All steer progeny and non-replacement heifers will be fed-out in the family owned feedlot and marketed on a grid that pays premiums for higher cutability carcasses that grade Choice or better. Feed resources are abundant, but labor at calving time is limited.

<table>
<thead>
<tr>
<th>No.</th>
<th>Birth Date</th>
<th>Birth Weight</th>
<th>Weaning Weight</th>
<th>Yearling Weight</th>
<th>Milk</th>
<th>Marbling</th>
<th>REA</th>
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<tbody>
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<tr>
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<td>+61</td>
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<td>+0.37</td>
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<tr>
<td>4</td>
<td>10/26/15</td>
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<td>+46</td>
<td>+57</td>
<td>+27</td>
<td>+0.18</td>
<td>+0.25</td>
</tr>
</tbody>
</table>

| Breed average: | +1.8 | +47.4 | +62.8 | +19.2 | +0.04 | +0.20 |

REA = Ribeye Area
National 4-H Livestock Judging Contest

November 17, 2015

Simmental Bulls

Scenario

Rank these bulls as potential herd sires for use on very moderate framed Angus cows to produce Sim-Angus bulls and heifers. Through the use of Simmental bulls, this breeder desires to increase cow size and carcass weight potential of the Angus-based genetics. Hybrid bulls will be sold to Sim-Angus breeders and commercial operations with high percentage Angus cows to increase red meat yield. An additional 20% of the Sim-Angus female progeny will be raised and sold to Sim-Angus operations as bred heifers. Cattle are managed in large pastures with moderate availability of feed resources. Labor at calving is limited.

Performance Data

<table>
<thead>
<tr>
<th>No.</th>
<th>Birth Date</th>
<th>Birth Weight</th>
<th>Weaning Weight</th>
<th>Yearling Weight</th>
<th>Milk</th>
<th>Marbling</th>
<th>REA</th>
<th>API</th>
<th>TI</th>
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<tbody>
<tr>
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<td>.87</td>
<td>126.3</td>
<td>67.0</td>
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</table>

Breed average EPDs: +1.9 +62.8 +91.7 +21.5 +.13 +.77 119.8 66.5

*EPD stands for “Expected Progeny Difference”
REA stands for Ribeye Area
API stands for All Purpose Index
TI is a terminal index that combines post weaning growth and carcass traits
National 4-H Livestock Judging Contest

November 17, 2015

Limousin Heifers

Rank these Limousin heifers in the order they should be selected as potential replacements for a commercial operation located in the Eastern Cornbelt. These heifers will be mated to Red Angus bulls. The top 25% of female progeny will be retained as replacements. All steer progeny and non-replacement heifers will be fed-out in the family owned feedlot and marketed on a grid that pays premiums for yield grade 1 and 2 carcasses that grade Choice or better. Replacement heifers must be growth-oriented, structurally correct females who excel in volume and fleshing ability. Feed and labor resources are abundant.

<table>
<thead>
<tr>
<th>No.</th>
<th>Birth Date</th>
<th>Birth Weight</th>
<th>Weaning Weight</th>
<th>Yearling Weight</th>
<th>Milk</th>
<th>Marbling</th>
<th>$MTI</th>
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<td>+0.31</td>
<td>61.4</td>
</tr>
</tbody>
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Breed average: +1.34 +66 +98.4 +26.3 +0.16 51.7

*$MTI = Mainstream Terminal Index
Class 6 Hereford Heifers with Data

SCENARIO: Rank these heifers for use in a national recognized purebred operation. The operation produces leading genetics for other purebred breeders across the country and promotes their cattle by exhibiting at national shows. The operation is known for producing functional cattle that excel in balanced EPD’s.

<table>
<thead>
<tr>
<th>Heifer</th>
<th>Birth Date</th>
<th>Birth Wt</th>
<th>Weaning Wt</th>
<th>Yearling Wt.</th>
<th>Milk</th>
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Market Steers
4-2-3-1

I placed the Mixed Market Steers 4-2-3-1. Starting with the most powerfully constructed steer who most effectively combines balance and correctness of finish. Ideally the motley face steer could handle with more finish over his lower rear rib and be smoother shouldered. However, in my top pair of more muscular, brown tinged steers I preferred 4 over 2.

4 is a stouter made, heavier boned, more expressively muscled steer. As viewed from behind he has more shape over his rib and loin, is thicker and fuller from hooks to pins and better maintains this thickness through his lower quarter. And 4 should go to the rail with a more shapely carcass ribbing a larger eye. In addition, he is wider chested and boulder sprung than 2. I realize that 2 is mellower handling. Yet, I faulted 2 and preferred him 2nd as he narrows from hooks to pins and is somewhat flat quartered.

Even so, in my middle pair I placed 2 over the big sheathed steer. 2 is simply a heavier muscled, more correctly finished steer that should yield a more muscular carcass more apt to grade choice than 3. As well, 2 is a nicer balanced more correctly structured steer. I admit that 3 is longer bodied. However, I criticized the tallest steer and placed him 3rd as he is poor balanced, wasty fronted and light muscled.

Now, in my bottom pair of poor balanced, light muscled steers I placed 3 over 1. The rough haired steer is a longer bodied, mellower handing steer with more weight per day age. And has more overall thickness and consequently should yield a heavier muscled carcass. I grant that 1 is a more attractive fronted, smoother shouldered steer. But I criticized the smallest steer and placed him fourth as he is the narrowest topped, flattest quartered, barest finished steer that should yield the least muscular carcass least apt to grade choice.
Performance Brangus Bulls

Scenario:

These bulls will mated to purebred Brangus heifers and cows to sire replacements for a large cow-calf operation in South Mississippi. Labor during calving season is adequate. Forage resources are adequate enough to maintain 1000 lb. mature cow. This producer will have an annual bull sale and all offspring not kept as bull prospects or replacements will be sold at weaning.

<table>
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<th>#</th>
<th>BW EPD</th>
<th>WW EPD</th>
<th>YW EPD</th>
<th>Milk EPD</th>
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Breed Averages

BW = 3.3
WW = 26.6
YW = 38.8
Milk = 7.7

I ranked the performance Brangus bulls 1-2-3-4. Realizing the need for a maternal oriented, high growth, calving ease sire, the stoutest made, trust moving, biggest testicled bull who is the strongest in growth and maternal traits best fits the given scenario. Ideally, 1 could be stronger topped and cleaner fronted.

However, in my top pair of more muscular bulls I placed 1 over 2 as he is simply wider made, higher volumed, longer bodied and a truer, stronger moving, bigger testicled bull who is higher in his yearling and milk EPD's. I realize, that 2 is stronger topped and has a slight advantage in weaning weight EPD. But, I criticized 2 and placed him 2nd as he is a short coupled, short necked, coarse shouldered bull with the highest BW EPD.

Even so, in my middle pair I preferred 2 over 3 as 2 is a more rugged, heavier boned, stouter made bull that opens up bigger and more muscular behind his shoulder and better maintains more muscle thickness and dimension through his rump and quarter and tracks wider on his hind legs. Along with this, he is a wider chested bull with more spring of rib and is particularly higher in his weaning weight EPD and should sire heavier weight, more profitable weaned calves. I realize, that 3 is a longer bodied, longer necked, smoother shouldered bull that is lower in his BW EPD and should be an easier calving sire than 2. But, I faulted 3 and preferred him 3rd as his is a narrow topped, flat quartered, light boned bull that tracks narrow on his hind legs.

Now, in my bottom pair I placed 3 over 4 as 3 is a nice balanced, longer bodied, more growth oriented bull that is specifically stronger in his milk EPD and should sire faster gaining, heavier milking replacement daughters. I admit, that 4 is more muscular and wider tracking. But I criticized the smallest testicled bull and placed him 4th as he is the shallowest bodied, flattest ribbed bull that is the poorest in his growth and maternal records, being below breed average in his year of birth.
Class 2

OSU Slick Market Steers

I placed the market steers 1324. The most production driven steer’s power and finish establish him as the carcass steer of choice and his rib and structure further exemplify practicality.

The bigger bodied steer studies bolder and fresher over his rib and loin. And then he is much more advanced in his fat deposition as he handles mellower and more consistent over his final rib and should be more likely capture choice premiums. He also continues his more practical build at the ground as he remains more comfortable in his lower joints. There’s no question the longer fronted, trimmer patterned painted up steer is more expressive and he should have the definite edge in cutability, but the thin finished, shallow flanked steer needs to be more organized in his front skeleton and reach with more rear joint flexibility.

In my middle decision that both need to be altered structurally, it’s the basics of width and power that keep 3 over 2.

The shapelier steer is constructed wider at the ground and to know surprise he views more powerful out of his rump, round and stifile. Now the yellow steer in 3rd may start with more dimension directly behind his shoulder, but doesn’t properly maintain this from there back. He fades and flattens over his loin and is plain shaped from behind. Plus the steer that toes out is entirely to strait up front so I marked him 3rd.

Despite all of this, he’s still more genuine in his composition than 4 and where he falls a bit short structurally, he should more than account for in Terminal value.

The trimmer handling steer turns more muscle shape up top and should end with a lower numerical yield grade. Now I like the practical fat steer look of 4 and he’s definitely a structural upgrade, but the narrowest constructed plainest topped steer is also heavy finished and this could significantly jeopardize his profit potential so he’s a distant 4th.
Charolais Steers

Houston 2011

I sorted the Charolais steers 4231. There's a top pair that offer tradeoffs in class-leading advantages and endpoint earning potential, but in the end I think both will hang a profitable carcass and tied to the genuine width and structural advantage of 4. The yield grade candidate is a trim patterned expressive calf that squares up with a better market steer shape behind his shoulder and over his loin, and is the most impressive in his stifle and quarter. Then, he supports his carcass value on a truly functional build. He's the widest and squarest at his base, is more useful in his angles and takes a more relaxed stride. Now don't get me wrong, I caught my eye from the side. He's the nicest balanced steer that's better fronted and stronger in his topline, and although his finish advantage suggests greater choice potential, he's also upright in his shoulder and short striding. Also from behind, he tapers out of his hip and to his base, so I left him second.

Still his initial impression from the side and grading potential make him an easy choice over 2 in the middle pair. The star face steer is a more attractive, nicer balanced calf that transitions bolder into his fore rib, and when I get my hands on him, is accordingly fresher behind his shoulders. Now I'll admit, 3 is a practical fat steer in his own right, and he holds the pair advantage when asked to lead, but it's from the side that I kept him third. The short bodied steer is weak in his top and round out of his hip.

Despite these criticisms, there's no contest in the final pair. I see much more economic incentive in 3 as it relates to CTRP. He's just a wider, stouter constructed steer that feeds in bolder behind his shoulder and spreads more shape up top, then is distinctly squarer and more expressive from behind. Sure, the dark gray steer on the far right is level lined and comfortable in his movement, but this holds no carcass value. He's the narrowest constructed, flat ribbed steer that's the most modest in his shape and could use more days on feed to reach a more profitable endpoint, so he's last.
Hereford Bulls  
PLR Herefords, Moyer Family

Rank these bulls as potential herd sires to be placed on 1300 pound Beefmaster cows to produce composite replacement females for South Texas. The composite heifers will be developed and sold to commercial cow-calf producers as bred heifers. The resulting composite steers will be fed out in a retained ownership program through Grahan feed yard and potentially sold through a Nolan Ryan tender-aged beef program.

<table>
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**Opening Statements**

I ranked the Hereford bulls with performance 2314. 2 is functional, yet powerful in his basic build and his genetic balance should serve both earning components of this operations marketing structure. Now the long feathered bull could perhaps be ____________, but in a competitive top pair that satisfies the scenario’s terminal request, it’s with heifer production in mind that I will use the maternal advantages of 2.

I rank the Perf. Hereford Bulls 2314. In an Opening pair of more terminal driven sires, I prefer the high indexing bull’s functional, yet powerful build and strong maternal advantages for the production of the most marketable bred.

I ranked the Hereford Bulls with performance 2314. In a competitive top pair that satisfy the scenario’s terminal request, 2’s functional, yet powerful basic build and maternal strengths positions him as the logical choice for heifer retention (for the production of marketable bred)
**Top Pair**
2’s daughters should more nearly emulate the kind that should be more marketable to commercial buyers.

 Marketable Breds or Heifer retention (if not mentioned in O.S.)

I’d put faith in 2’s daughters to make more profitable breds

**Middle Pair**
I’d prefer a more moderate BW, but with mature cows in this production setting, I’ll overlook this and use his pair advantage in growth and carcass merit to beat 1 in my middle pair.

The high REA bull is
The high IMF bulls is

3 should improve feedlot performance and carcass merit that will ultimately equate to more profitable fed progeny.

3’s terminal progeny should gain more efficiently through the feedlot phase and end with advantage in carcass merit.

**Bottom Pair**
Not enough scenario requested differences to predict offspring. Just identify the differences in the paper and talk the phenotypic differences.
I like the performance Brahman bulls 1234. Both 1 and 2 sort to the top as a pair of rugged built bulls who both have the quality genetics and functional body type demanded by this producer where I prefer the added stoutness and balanced look of 1 and 3. I put more faith in him to broaden both foreign and domestic markets so I placed him over 2 in my initial comparison.

The scurred bull is much wider chested, he studies with a more genuine shape to his rib, is constructed stouter out of his hip and stands squarer and truer at the ground. Furthermore, the low birth weight bull is nicer patterned as he is longer and more level about his lines. I will certainly agree that 2 is a useful bull in his own right as the large testicle bull is practical in his rib and correct in his structural base but unfortunately the short fronted bull gets somewhat flat in his upper rib and tapers from behind so I left him 2nd.

Even so, I still see more economic incentives in his practical build and balanced genetics and easily placed him over 3 in my intermediate duo. The large sheath bull is the much deeper ribbed, he studies with a more functional angle to his joints and if asked to lead I bet he would take the longer more relaxed stride. Additionally, if his functional body type and maternal data breeds true I bet he will sire the more valuable replacements. I will agree that 3 is a stout constructed bull and is more expressive in his shape but data alone takes the low milk bull out of my initial comparison and of further detriment he is also the plain profiling bull gets off in his hip and is a notch upright in his joints so he’s 3rd.

Despite this, I still favor 3’s added stoutness and mass in my final comparison. Here’s just the more masculine wider constructed bull that’s bolder in his basic build. Sure, the may born bull may be more level about his lines but the red bull is also the frail narrow constructed bull that’s the tightest in his rib so I left him 4th.
I like the Performance Brahman heifers 2143, 2 & 1 both offer the visual quality and foundation genetics sought after this operation and both offer a strong case to win yet for different reasons. Personally, I tied to the look and maternal function found in 2.

The 274/7 heifer is much more attracted from the side. She offers more quality up front and is more nearly level in her hip. But perhaps her true value lies in her structural base, where she reads with a more correct set to her lower joints and reaches out with a longer more relaxed stride and replacements of her kind are essential regardless of production goals. Now, I wouldn’t argue if the pair was switched in 1’s favor. She’s certainly the broodier wider chested heifer who leaves me with more natural thickness from behind and is more evenly quartered in her utter. But for me, the coarse featured steep hipped heifer just cannot rival the look of an impressive winner. So, I left her in a comfortable second.

Despite these criticisms, the greatest gap in replacement value lies in the middle pair. Where 1’s broody build and genetic background easily places her over 4. To keep it simply, the dark pigmented clean naval heifer is built wider and stouter from the ground up. She opens boulder through her center body and is set wider in her pins. This coupled with her genetic growth strengths suggests her sons should be more valuable for this diverse cential base. Now there’s no question, the smoother shoulder heifer is more pleasing from the side. But it’s just unfortunate; she’s too flat in her fore rib and frail in her foundation. But even so, I still see her as the more practical alternative in the bottom pair.

The more maternally focused heifer is more feminine up front and attractive in her hip and rear leg set. She remains more functional in the angle to her hock and pasterns. I’d expect her to offer more longevity when set into production. Now sure, the low birth heifer is boulder bodied and stouter pinned. But without functionality, this is of little value. The off quality poor structured heifer is entirely too straight off both ends and is the least impressive on paper. So, I left her fourth.
Performance Brahman Heifers

Houston 2011

I sorted the performance Brahman heifers 2134. Both 2 and 1 offer the functional rib and skeleton I'd expect from the Brahman breed, and although I'd put faith in their benchmark genetics to establish a productive cow herd, it's the 274/7 heifer's feminine presence from the side that should allow her to produce the more marketable show prospects.

The high growth heifer embodies a look of maternal function. She ties a longer neck higher into a flatter shoulder, then the somewhat later maturing female is longer and leveler in her lines from there, planting the most attractive hip and hind leg. Now don't get me wrong, 1's a stout featured heifer that's wider chested and transitions bolder into her fore rib, and although replacements of her kind are essential in maintaining a manageable cow herd, unfortunately, she's lower tying up front and tapers out of her hip and to her base so I left her a close 2nd.

Still, there's no contest in the middle pair. 1's cow character makes her a much better candidate for donor status in my middle pair. The dark pigmented heifer is a broody, bodied female that's more useful in her angles and fills her track with a more comfortable stride. Additionally, her more powerful build and stouter pin-set should benefit any bull progeny. Now I'll admit, 3's more correct in her hump placement, and she's the visually higher performing heifer that's longer hipped, but she's also a narrow made female that's flat in her fore rib and upright in her angles, and my practical mindset kept her third.

Now, quality drops in my final pair, but I would still put more faith in 3 to uphold her maternal responsibility. The low-birth heifer is not only longer profiling and more refined in her udder, but she's also more correct in her angles and takes a comfortable stride. Sure the red tinge heifer is wider chested, but today she's facing a considerable performance deficit, not to mention she's the coarse udder heifer that's the most upright in her angles and restricted in her movement, so she's last.
Performance Hereford Bulls: Official Placing 3214 cuts 326
Reasons Score: 48

I rank the performance Hereford Bulls 3-1-2-4. It is evident that 3 is here to win. He is the stout, flexible bull that should prove most beneficial to the Hereford Industries Progression. In direct comparison, he’s the biggest ribbed, bull that’s striking from the side profile. But, where he truly distances himself from his contemporaries when pulled to a lead, the deep heeled bull that retracts to the surface with athleticism. Don’t get me wrong, the high milk bull is soft centered and should produce easy keeping off spring. I’m just leery of the twisted testicled bull that cuts up in his flank and pops his pasterns.

It’s with a more manageable cow herd in mind I use the January bull in my intermediate duo. The cleaner fronted potential herd sire reaches with a more athletic range of motion and I just think it is an added token that he is the low BW bull that should be more applicable to commercial producers. No doubt the horned bull is the genuine source of mass, dimension and power, I just can’t use the high BW bull that’s bold shouldered in the top pair.

Taking that into consideration, it is with fed progeny in mind that I think the February bull’s documented advantage in growth and carcass weight should have a more substantial impact on terminal returns. I’m aware the tick feathered bull is the youngest in class and round footed. Unfortunately, for the bull that reads below breed average in CHB, he is the poor structured, bold shouldered hard caving sire that just doesn’t cut it genetically, making him the least likely candidate for herd progression, so he’s last.

Market Steers: Official Placing 2-3-1-4 cuts 625 Reasons Score: 45

I like the market steers 2 – 1 – 3 – 4. It is evident that 2 is here to win and he is a good one to start. He further highlights his market readiness with a balanced and quality show steer look to win. Not only does he handle all his power with plenty of flexibility at the ground, but he’s the fresh handling one who works the most mass out of the back side of his shoulder. Now I certainly offers an easy feeding, practical look from the side. Unfortunately, from behind, the ring nosed steer flattens through his lower stifles, and just gives up the fresh look and meat animal shape needed to win.

But in the middle pair, there’s no question. The ring nosed steer better embodies that practical fat steer look from the side, and I just expect the mellower handling option to offer a more profitable tradeoff between quality and yield. Now sure, 3 is more likely to qualify for black hided premiums, and he’s actually pretty shapely... but at the same time, he’s also the harder bodied pounds lighter option, so I left him 3rd.

Still I’ll side with his handling quality over 4 in the bottom pair. The steer who is more organized in his front skeleton works a squarer top out of the back of his shoulder and goes back with more expression over his loin edge. For what it’s worth, 4 is a big pinned steer with plenty of upper hip dimension; but for as wide as he is up high, he flattens through his lower stifles and funnels through his base. And in a class of this caliber, the steer who toes out up front is the deep chested one who cuts up in his flank. Not to mention he’s also the plainest handling – and I’d just expect him to rail the least shapely carcass.
National 4-H Livestock Judging Contest
Lim-Flex Heifers Questions-Class #8

1. Which heifer had the most condition? 3
2. Which heifer is the narrowest and lightest muscled? 3
3. Between 1 and 2, which heifer is more feminine about her head? 2
4. Which heifer has the most white on her udder? 1
5. Which heifer is the heaviest muscled and stoutest boned? 1
6. Which heifer is the shortest in her stride and stiffest moving? 4
7. Which heifer has the most spread from Birth to Yearling EPD? 2
8. According to the data; which heifer is most likely to present problems at calving? 3
9. Which heifer is longer and cleaner about her front end? 4
10. Which heifer's progeny is most likely to produce more milk than the feeding can support? 3