

Priorities First



Identifying Management Priorities in the Commercial Cow-Calf Business

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More than 200 producers and industry specialists took the time to share their expertise and perspective by completing the six-page survey used to gather necessary information for this study. The entire cow-calf sector is in their debt. The author expresses his gratitude for their contribution toward making the U.S. beef industry better and stronger.





Preface

More than 100 years ago, L.H. Kerrick, the 15th President of the American Angus Association printed the following statement in his sale catalog: “The final and proper purpose of all beef cattle breeding is to produce good beef; its highest purpose is the production of the most beef of the best quality in the least time, with a given amount of feed and care.” Kerrick’s futuristic statement sums up the role of the beef industry today.

As market globalization expands, brands proliferate and costs of production increase, the need for strategic, prioritized educational information becomes imperative. Angus genetics currently comprise the majority of the commercial cow-calf operations in America. More than 29 USDA certified beef brands carry the Angus name. The role of the American Angus Association has changed from that of a traditional breed association to an industry leader with a vision and responsibility to improve the beef industry.

In the fall of 2006, the American Angus Association conducted the first Commercial Cattleman’s Focus Group. Information gathered from the esteemed panelists during this very informative day challenged us to think differently. The challenge from this group was to accept the role of beef industry leader and become a conduit of information accessible by all. The Association was challenged to use its resources, intellectual power and position to move the beef industry forward.

While the Association is a leader in developing genetic evaluation tools, economic indexes and the most successful branded beef program in the world, knowing precisely where to begin this formidable challenge was, at best, vague. The diversity of beef production in America is enormous. An economic priority in high desert country may be irrelevant in the Deep South. The need for an unbiased study to prioritize management and economic issues for cow-calf beef producers, regardless of geographic location, became apparent.

Quite literally, *Priorities First* is the first step toward a comprehensive educational movement with the sole purpose of providing objective, useful information to all beef producers.

Priorities First, by Tom Field, Ph.D., Colorado State University, studied the responses of more than 200 producers and industry specialists. The participants had no knowledge regarding the American Angus Association’s sponsorship. As a result, the study is an unbiased report representing cow-calf producers, nutritionists, veterinarians, marketing professionals, reproduction specialists—130 producers and 87 industry specialists in all.





Identifying Management Priorities in the Commercial Cow-Calf Business

— Executive Summary —

The Problem: For many cow-calf producers, the information age has spawned a massive flow of data and technical communications that borders on the unmanageable. Earlier generations could not have imagined the volume or ease of access to information we enjoy. The challenge in this warp speed world of information overload is distilling a high-volume of facts, ideas and possibilities into a cohesive management plan. We also know that such a plan must allocate time and resources according to economic priorities.

Cow-calf operators must manage a broad range of daily activities in an environment replete with risk and uncertainty. Concurrently, industry specialists who support the cow-calf sector are challenged to provide information and technical services in alignment with the real-world needs of producers. Specialists must not only generate new discoveries, but they also have the responsibility to assimilate, filter, and integrate vast amounts of information into a format that can be beneficially used by the industry.

Producers and specialists alike are confronted with mountains of information that is often presented as stand-alone facts and principles. This information needs to be integrated and applied according to economic priorities within the cow-calf enterprise. Prioritizing management activities and aligning the industry's information resources with these priorities is, thus, an important step toward improving producer profitability. But we must first understand which aspects of the operation need the greatest emphasis. In other words, we need to know what to prioritize in the first place. That is the purpose of this study: Identify management priorities in the commercial cow-calf business.

The Survey: Cow-calf managers function in a complex and risky business environment where it is impossible to control many factors that profoundly affect the bottom line of their business. The risk introduced by weather, markets, equipment breakdowns, and numerous other factors adds difficulty and uncertainty to decision making. However, managers can remain in control, so long as they focus continually on the areas of greatest economic importance.

To help address these issues, a management priorities survey was developed to determine which management areas are most economically important in the cow-calf business. Input and perspectives were solicited from both industry-leading producers and specialists who actively work in the beef cow sector. In total, 217 surveys were collected from 130 producers and 87 specialists. Producer respondents represent professional cow-calf operators with varying herd sizes from across the U.S. Participating specialists work with producers across a wide-range of disciplines (e.g., veterinary medicine, nutrition, economics/marketing, reproduction, pasture management) in various geographies throughout the nation. Producers and specialists were in general agreement as they gave their views on management priorities. The correlation between their mean priority scores was 0.90 (highly correlated) among the survey's 15 main management categories.

Note: The survey was conducted without the participants' knowledge as to the identity of the sponsoring organization. Respondents were unbiased when answering questions relating to genetics and any other business matters engaged in by the American Angus Association.

Objectives:

- Identify and rank management priorities in the cow-calf business
- Provide producers with a “roadmap” to help them better organize and prioritize various aspects of their operations according to economic importance
- Encourage producers to evaluate and deploy their time, money and other resources on the most important operational priorities

Results: Survey findings are summarized below. The table provides a list of the primary management categories in order of priority ranking (1st to 15th). The two most important subtopics within each management area are also shown.

Rank	Management Category	1st ranked subcategory	2nd ranked subcategory
1	Herd nutrition	Cowherd nutrition	Replacement heifer nutrition
2	Pasture & range	Stocking rate	Timing and duration of grazing
3	Herd health	Calves pre-weaning	Calves post-weaning
4	Financial	Cost accounting	Cash flow analysis
5	Marketing	Marketing calves	Choice of market channel
6	Production	Breeding management	Calving management
7	Genetics	Bull genetic merit	Cow and heifer genetic merit
8	Labor	Hired	Family
9	Information	Reproductive data	Inventory data
10	Harvested forages	Below industry cost	Mineral program
11	Identification	Cow ID	Herd ID for decision making
12	Natural resources	Healthy riparian areas	Environmental compliance
13	Biosecurity	Product handling	Source, age, process verification
14	Facilities & equipment	Processing/sorting/ handling	Below average costs
15	Technical support	Veterinarian	Financial specialist

Key Messages

Summary of Top 10 Overall Rankings

1. **Herd nutrition**—respondents were in strong agreement making nutrition the number one ranked management priority.
2. **Pasture and range management**—respondents emphasized grazing as the preferred route to insuring adequate nutrition for the cowherd (harvested forages and supplemental feeds ranked 10th in the survey).
3. **Herd health**—results underscore to the importance of this area of the operation, with primary emphasis on disease prevention.
4. **Financial**—this management area was considered ‘foundational to profitability’ by two-thirds of respondents.
5. **Marketing**—respondents rounded out their top five with an emphasis on marketing, especially marketing of the calf crop through the most appropriate channel.
6. **Production**—this aspect of the cow-calf business remains important to profitability, with primary emphasis on (1) calving and breeding; (2) weaning protocols and replacement female selection; and (3) culling decisions and herd bull management.
7. **Genetics**—ranked higher among producers than specialists, and higher still among producers who retain ownership of their calf crop through the feedlot.
8. **Labor**—this category ranked in the middle of the pack, but received higher marks from producers managing larger herds.
9. **Information management**—subtopics ranking high in this category included herd reproduction data and cattle inventory information with overall cattle performance records, health data and weaning information rounding out the list.
10. **Harvested forages**—completed the top 10 but with specialists ranking this topic higher than did producers. Respondents were keen on maintaining lower than industry-average costs in this category.

Identification, natural resource management, biosecurity, facilities and equipment and technical support were ranked 11th through 15th, respectively. As a group, these five topics were viewed as well down the priority list, though beneficial and in a supporting role to cow-calf profitability.

Introduction and Objectives

The commercial cow-calf business is challenging and complex. Success demands both expertise and execution across a broad range of areas, including some that are largely outside the producer's control (weather and markets, for example). Time and resources must be engaged on the highest priority tasks within this difficult business environment. The cow-calf manager must consistently get "first things first" in all he or she does. Therein lies the challenge: (1) what are the most important tasks, (2) which management priorities should the cow-calf operator place the greatest emphasis and allocation of resources, and (3) which should be treated as secondary in importance?

Some aspects of the operation truly are more important than others if profitability and sustainability are the desired outcomes. Yet little research has been directed at helping commercial cow-calf producers prioritize their responsibilities or workload. The purpose of this study is to help answer these questions. The following objectives were adopted upon project initiation in early 2006:

- Identify and rank management priorities in the cow-calf business
- Provide producers with a "roadmap" to help them better organize and prioritize various aspects of their operations according to economic importance
- Encourage producers to evaluate and deploy their time, money and other resources on the most important operational priorities

This study intentionally focuses on the big picture of ordering management priorities. There is no need to instruct producers on how to manage various technical aspects of the commercial cow-calf business. Vast amounts of useful information are available in that regard. Search the Internet for the category of interest, such as cowherd nutrition, pasture management, reproduction, animal health, genetics, marketing, or any other subject related to beef cattle production, and the resulting list will be long and detailed. Do the same search for "cow-calf management priorities," however, and almost nothing providing an overall operational perspective can be found. The current project attempts to reduce this void by helping producers understand what to emphasize as they manage their operations for profit and longevity.



Methods

To meet the above-stated objectives, perspectives from some of the brightest minds in the industry were tapped using a specifically designed questionnaire. Two types of respondents were sought. The first group was comprised of 130 respected commercial cow-calf producers with a wide range of herd sizes and geographic locations throughout the U.S. The second group included 87 industry specialists of varying disciplines (nutritionists, veterinarians, beef extension specialists, reproductive management specialists, cattle geneticists, livestock economists, and pasture/range experts and consultants) who were also geographically dispersed throughout the nation. A total of 217 completed questionnaires were received from the two participant groups.

Fifteen major management categories were evaluated in the survey (listed below). Participants were first asked to prioritize these “big bucket” categories in relationship to each other. The questionnaire contained a second section of three to nine subcategories corresponding to each main category. Participants were also asked to rank each subcategory according to its importance in successful management of the cow-calf enterprise. Demographic information was collected from responding producers as well to better characterize their operational goals and perspective.

Respondents were asked to rank each category according to its importance using three straightforward alternatives: **FOUNDATIONAL**—an absolutely critical aspect of the business that must be prioritized highly and managed well if profitability is to be attained. The next-level ranking was defined as **IMPORTANT**—a part of the business that is usually needed and should be well managed to keep the operation profitable. Finally, the third ranking was defined as **BENEFICIAL**—something that may enhance profitability but ranks as a lower priority and is not required to keep the business operating in the black.

Significant inter-relationships exist among many (if not most) of the 15 main management categories. Nutrition Management is clearly related to Pasture and Harvested Forages, for example. Yet these categories are not exactly the same, and for the sake of the data gathering process, it was logical to present each category as distinct. As the survey results are discussed and analyzed, these categories can be combined into logical sub-groups for clearer interpretation.

Table 1. — Survey’s 15 Major Management Categories

- | | | |
|--|---|--|
| ■ Herd Nutrition | ■ Herd Health | ■ Herd Identification System |
| ■ Pasture & Range Management | ■ Biosecurity & Quality Assurance | ■ Marketing |
| ■ Harvested Forages & Supplemental Feeds | ■ Labor Management & Cost | ■ Financial Management |
| ■ Production Management | ■ Facilities and Equipment | ■ Natural Resources & Environmental Management |
| ■ Genetics | ■ Information Management & Record Keeping | ■ Technical Support from Specialists |

Respondent Description

Two hundred seventeen surveys were collected and tabulated from 87 specialists and 130 cow-calf producers. Producer respondents represent professional cow-calf businessmen and women who play a leadership role in their state and/or region. Industry specialists who work directly with producers across a wide-ranging set of disciplines and circumstances were selected for inclusion in the survey as well.

The distribution of respondents aligns reasonably well with the distribution of beef cows in the U.S. The majority of producers were owner-managers between the ages of 40 and 59 whose responses were most heavily influenced by debt, labor issues, drought, and market conditions.

Cow-calf producer demographics:

- 22% operation owners or part owners
- 62% owner/managers
- 16% managers
- 25% less than 200 cows
- 23% 200 to 499 cows
- 23% 500 to 1,000 cows
- 29% more than 1,000 cows
- 13% younger than 40 years old
- 64% 40 to 59 years
- 23% 60 years or older
- 23% Midwest
- 10% Northwest
- 28% Southeast
- 30% South Plains
- 9% Southwest
- The average producer respondent sold 33% of their calves at weaning, 28% as yearlings, and the remaining 39% as fed cattle
- 34% sold 50% or more of their calves at weaning
- 28% sold 50% or more of their calves as yearlings
- 42% sold 50% or more of their calves as fed cattle



Interpretation of Results

Operational areas with mean scores of 7.0 or higher (across all survey participants) can be viewed as “very high” management priorities. Scores from 5.0 to 6.9 qualify as “high” management priorities. Lastly, a mean score below 5.0 is something that, when managed well, can be beneficial for the cow-calf operation. However, respondents place these management categories lower on the priority list (Table 3).

Consensus view is especially meaningful in this study, because it reflects the collective perspective of a highly experienced group of cattle producers and beef industry specialists. And there is strong consensus opinion that came bounding through the survey concerning the 15 major management categories and related subcategories. The purpose of the project was to develop a management priorities roadmap for U.S. cow calf producers—a roadmap that will help producers get “first things first” as they face the challenge and complexity of managing their businesses.

Every cow-calf business is unique in at least a few ways. So the successful application of this roadmap will vary from operation to operation. Yet the consensus view offers a powerful perspective that is broad and deep, honed in the real world of managing commercial beef cows and working closely with thousands of cattle ranchers and farmers across many years. From small to large, producers in the cow-calf business can use these guidelines to modify their management practices—and reap improved profitability and a brighter future in the industry.

Table 3. — Mean Scores Identify Appropriate Prioritization

Mean Priority Score	Interpretation
7.0 or above	Very high priority
5.0 to 6.9	High priority
4.9 or less	Lower priority





Overview of Results

Table 4 and Figure 1 present priority score means and survey rankings for the 15 major cow-calf management categories. Listing is by mean priority score from highest to lowest. Each category earned its position on the list from the collective view of all survey participants (simple average of all respondent scores). Higher rankings invoke the need for higher levels of prioritization and greater management emphasis, according to survey participants. Lower mean scores equate a lower management priority.

None of the 15 categories should be considered unimportant. Each has its place in a well-managed beef cow operation. However, some aspects of the business are more economically important than others, and thus, deserve greater managerial time and energy. The top 10 categories all scored above 5.0 on the survey's numeric scale (5.9 to 8.9), placing them solidly between **Important** and **Foundational** in the minds of those completing the survey. Cow-calf operators should make certain their strongest efforts are focused on these aspects of the business.

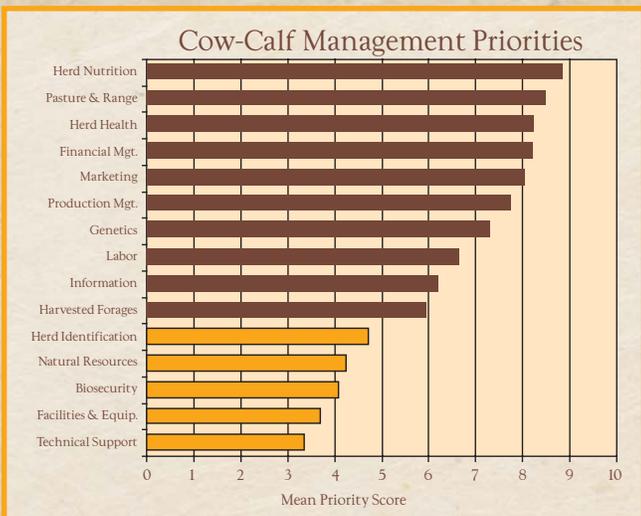
The remaining categories fell below 5.0, positioning them in varying spots between **Beneficial** and **Important**. Well-managed operations should work secondarily to make sure these areas of their businesses contribute meaningfully to the bottom line.

Survey responses from the two participant groups matched up well. Producers and industry specialists were in reasonably strong agreement concerning the relative priority of the 15 main

Table 4. —
Overall Priority Ranking
and Mean Priority Score:
15 Major Management Categories

Management Category	Survey Rank	Mean Score	SD*
Herd Nutrition	1	8.87	2.1
Pasture & Range Management	2	8.53	2.4
Herd Health	3	8.25	2.5
Financial Management	4	8.23	2.6
Marketing	5	8.06	2.8
Production Management	6	7.78	2.6
Genetics	7	7.30	3.0
Labor Management & Cost	8	6.66	3.2
Information Management & Records	9	6.20	3.3
Harvested Forages/Supplemental Feeds	10	5.94	3.4
Herd Identification System	11	4.72	3.7
Natural Resources & Environmental	12	4.24	3.5
Biosecurity & Quality Assurance	13	4.08	3.5
Facilities & Equipment	14	3.69	3.3
Technical Support from Specialists	15	3.34	3.1

* standard deviation



management categories. Their rankings were not identical. However, the statistical correlation between their mean scores was 0.90 (highly correlated), indicating similar views. As shown in Table 5, producers and specialists were in almost perfect alignment when it came to breaking the 15 management categories into three groups: top 5, middle 5, and bottom 5 priorities. With one exception (specialists ranked herd health 6th and production management 5th), there is complete unity in that regard. This result supports the accuracy of the findings. The ordering of management priorities identified by the survey can be applied with confidence.

The next section provides a detailed look at the each of the main management categories and related subcategories.

**Table 5.—
Producer & Industry
Specialist Priority Rankings:
15 Major Management Categories**

Management Category	Producer Rank	Specialist Rank
Herd Nutrition	1	1
Pasture & Range Management	3	2
Herd Health	2	6
Financial Management	4	3
Marketing	5	4
Production Management	7	5
Genetics	6	9
Labor Management & Cost	8	8
Information Management & Records	9	10
Harvested Forages & Supplemental Feeds	10	7
Herd Identification System	11	12
Natural Resources & Environmental	12	13
Biosecurity & Quality Assurance	13	14
Facilities & Equipment	14	15
Technical Support from Specialists	15	11

Herd Nutrition Priority No. 1

Mean Priority Score	8.9
Producer Score	9.0 (1st)
Specialist Score	8.7 (1st)

Herd nutrition was identified as the number one management priority cow-calf operators must focus on to keep their operations profitable and sustainable. Producers and industry specialists alike put herd nutrition first on their priority list. Among the survey's 15 management categories, nowhere were responses more consistent. The standard deviation in priority scores was only 2.1 (smallest in the survey), indicating a strong consensus among participants that nutrition is critically important. A whopping 77% ranked herd nutrition as **Foundational** to success in the cow-calf business. The remaining 23% indicated that it is **Important**. Not a single lower-ranking vote was recorded.

Regardless of herd size or geographic location, producers agree on the crucial nature of managing herd nutrition. Average priority scores ranged from 8.3 to 9.3 (all very high) across herd size and regional sub-groups.

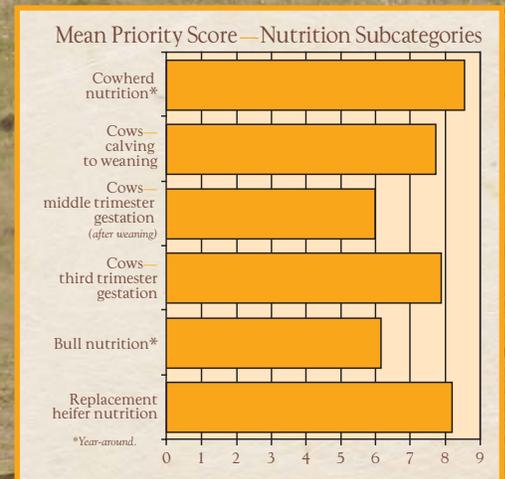
“Nutrition has long been singled out as the largest expense for cow-calf producers. Feed costs typically represent 65% to 72% of the annual cow budget. Balancing favorable cowherd performance with low nutritional costs could be the greatest challenge this segment of the industry faces.”

— Twig Marston, Ph.D., Kansas State University (survey participant)

Herd Nutrition Subcategories

Six nutritional subcategories were included in the survey. Four of the six scored very high (from 7.7 to 8.6) as shown in the chart below. These included cowherd nutrition overall, cowherd nutrition from calving to weaning, cowherd nutrition during the third trimester of gestation, and replacement heifer nutrition. While still fairly important, respondents place less emphasis on cow nutrition during the middle trimester of gestation and on bull nutrition.

Producers and specialists view various nutritional aspects of the operation similarly from the standpoint of relative importance. However, producers scored all six nutritional subcategories modestly higher than did the industry specialists (mean producer scores ranged from 0.6 to 1.2 units higher).



Pasture & Range Priority No. 2

Mean Priority Score	8.5
Producer Score	8.6 (3rd)
Specialist Score	8.4 (2nd)

The beef cow business is an extensive, land-based enterprise. Long-term success depends on effective range and pasture management. Thus, it is not surprising that respondents emphasize pasture and range management as very important to profitability (mean priority score of 8.5, with more consistency than average in respondent scoring).

When considered in conjunction with the survey's lower priority ranking on harvested forages (ranked 10th), respondents apparently view effective pasture and grazing management as the key to meeting cowherd nutritional requirements while keeping costs down. Overall, 73% and 69% of producers and specialists, respectively, scored this category as **Foundational** to success of the cow-calf enterprise. Across regional and herd size sub-groups, mean priority scores for participating producers ranged from 7.7 to 9.6 (all high).

“Grazing management, because it is both a science and an art, should be based on both the knowledge of science and the wisdom of practical experience.”

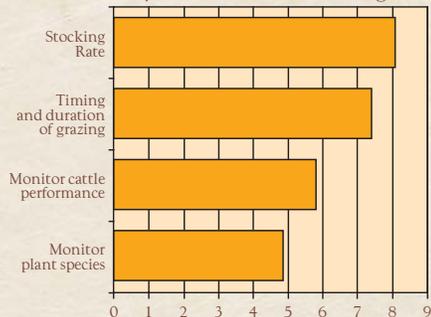
— John Vallentine, Grazing Management

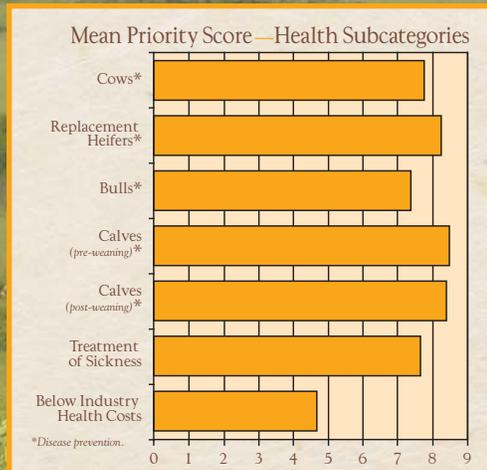
Pasture Subcategories

Highest-ranking subcategories included stocking rate and the timing and duration of grazing (mean priority scores of 8.0 and 7.4, respectively). These two aspects of pasture management are worthy of major emphasis, according to survey respondents. Monitoring cattle performance (5.9) and plant species (4.9) scored lower, though should not be considered unimportant to profitability. Producers and specialists ranked the four subcategories the same from highest to lowest. However, producers assigned higher numerical scores in all cases than did the specialists. Standard deviations were higher relative to monitoring activities indicating more variation in responses.

Pasture and range management is a topic that likely deserves significantly higher emphasis in the development and delivery of educational programs for the industry.

Mean Priority Score—Pasture Subcategories





Herd Health • Priority No.3

Mean Priority Score 8.2
 Producer Score 8.8 (2nd)
 Specialist Score 7.5 (6th)

Herd health ranked very high as a management priority in the commercial cow-calf business. Both producers and industry specialists agree on its importance in maintaining a profitable operation. Producers do view herd health as a somewhat higher priority compared to industry specialists. However, the standard deviation on rankings for herd health was smaller than average among the 15 main survey categories. This indicates less than average variation across all participant responses. In total, 99% of respondents ranked herd health as either **Foundational** or **Important** to the profitability and longevity of the cow-calf enterprise.

Producer respondents in all U.S. regions and across all herd sizes agree on the importance of managing herd health. Average priority scores ranged from 7.9 to 9.4 (all very high) in regional and herd size sub-groups.

“Progressive beef producers have learned that disease prevention moves them a long way toward profitability. The cow-calf operations we work with aim to develop quality beef from a healthy herd. An active herd health program yields healthy calves, fewer train wrecks, and helps ensure the producer’s future in the business.”

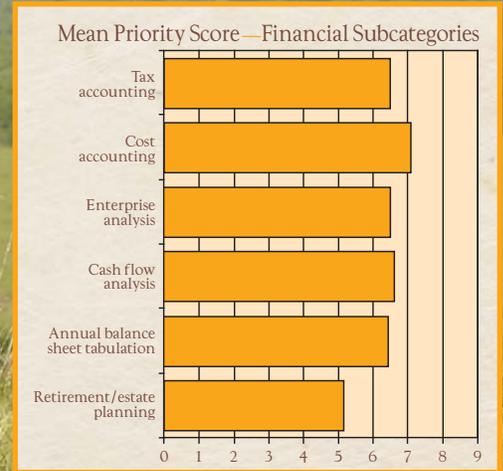
—Dr. Arn Anderson, Veterinarian, Bowie, Texas
 (survey participant)

Herd Health Subcategories

Seven herd health subcategories were included in the survey. Five of these focused on disease prevention (health maintenance). Mean priority scores were quite high for health maintenance in cows, bulls, and especially replacement heifers and calves, both pre- and post-weaning (chart above).

Respondents place a great deal of management emphasis on the prevention of disease, presumably through a sound vaccination program and related measures. Treatment of any sicknesses that arise also received a high ranking. Aggressively dealing with health problems, which are bound to occur from time to time, is the preferred management response.

Furthermore, neither producers nor industry specialists viewed “below industry average health maintenance costs” as a priority (mean score below 5). Health management was not viewed as a place to cut corners or costs. Instead, respondents believe herd health should be proactively emphasized as one of the most important aspects of a cow-calf operation.



Financial • Priority No.4

Mean Priority Score 8.2
 Producer Score 8.3 (4th)
 Specialist Score 8.2 (3rd)

Financial management is an important ‘critical control point’ for cow-calf producers. Managers need hard financial data to measure the success of various activities as well as to gauge profitability for the whole enterprise. Furthermore, decision making in all aspects of the operation must be made with financial goals in mind. Respondents clearly perceive financial management as a very high priority in the cow-calf business (mean priority score = 8.2; with greater than average consistency in responses). Two-thirds of survey participants scored this category as **Foundational** to profitability. Another 31% said it was **Important**. Mean scores among producers and specialists were very close together (8.3 and 8.2, respectively), indicating alignment between the two respondent groups.

Across all herd sizes or geographic locations, producers agree on the critical nature of managing the operation’s finances. Average priority scores ranged from 7.6 to 9.6 (all high) across herd size and regional sub-groups.

“In the past, ranchers have substituted financial conservatism in place of keeping financial records. During periods of asset appreciation that approach worked fairly well. The odds of this strategy working in the new business era are really quite small.”

— Harlan Hughes, Ph.D., Livestock Economist,
 Laramie, Wyoming (survey participant)

Financial Subcategories

Cost accounting was viewed as the most important of the six financial subcategories (7.1). With the exception of estate planning (5.0, and lowest in the group), remaining subcategories were closely grouped (mean scores ranging from 6.4 to 6.7). Estate planning may have been ranked lower as a result of the age distribution of respondents. It should also be noted that specialists scored estate planning higher than did producers. As well, specialists tended to score the financial subtopics higher overall than did producers.

Financial/accounting technical services were ranked second in importance to veterinarians (see Technical Support summary), which lends additional strength to the prioritization of this category overall. Producers viewed financial management as critical in importance and accessing professional expertise in this area is important to them.

Service and education providers could offer the industry an excellent value by providing user-friendly, integrated financial record keeping and analysis packages that also meet the needs of producer respondents as discussed in the Information Management summary presented later in this report.

Marketing Priority No.5

Mean Priority Score	8.1
Producer Score	8.2 (5th)
Specialist Score	7.8 (4th)

Marketing completes the top five, making this aspect of the business a very high management priority for cow-calf farmers and ranchers. Producers and industry specialists strongly agree on the importance of marketing in maintaining a successful operation. Average priority scores between the two respondent groups were quite similar (8.2 and 7.8 for producers and specialists, respectively). Standard deviation of responses was smaller than average among the 15 main survey categories, indicating greater-than-average consistency in participant prioritization. In total, 96% of respondents ranked marketing as either *Foundational* or *Important*.

Participating producers in all U.S. regions and across all herd sizes concur on the importance of marketing as a management priority. Mean scores ranged from 7.5 to 9.2 (all high) across regional and herd size sub-groups.

“It is no secret that production costs for cow-calf operators have been rising faster than normal during the past several years. As a result, producers are becoming more oriented toward marketing and are working harder to add value to their calves in a variety of ways. Their goal is to increase revenue and bring more profitability to the bottom line.”

—Randy Blach, Cattle-Fax, Englewood, Colorado (survey participant)

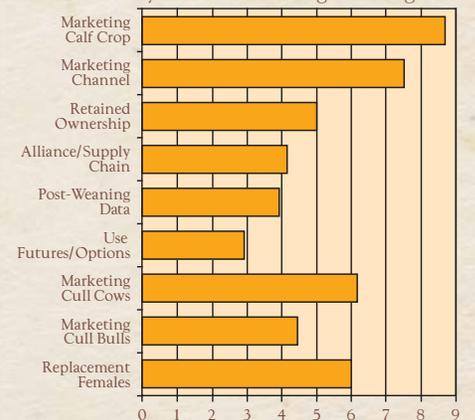
Marketing Subcategories

Survey respondents agree that the highest marketing priority for producers involves getting the annual calf crop sold (8.7). More than 80% of a typical operation’s revenue comes from the sale of calves and yearlings, making it the marketing sweet spot in the cow-calf business. Selecting the right marketing channel (auction, video, direct sales, retaining ownership beyond weaning, etc.) for the calf crop also scored high (7.5) as an important part of the marketing program.

Respondents don’t necessarily consider retained ownership through a stocker and/or feedlot phase as a high priority (5.0). However, producer participants definitely consider maintaining ownership as beneficial, because 78% do so annually with 25% to 100% of their own calf crops.

Marketing cull cows (6.2) and replacement heifers (6.0) should receive fairly strong emphasis, according to the survey. Participation in an alliance or beef supply chain (4.2) as well as providing postweaning performance data to feedlots (4.0) ranked lower, falling into the *beneficial* but not essential category. Use of futures and/or options ranked lowest among marketing subcategories (2.9), and is thus a lower priority for most cow-calf producers.

Mean Priority Score — Marketing Subcategories





Production Priority No.6

Mean Priority Score	7.8
Producer Score	7.9 (7th)
Specialist Score	7.6 (5th)

Production and operational decisions affect the volume of output generated by the cow-calf enterprise (example: pounds weaned per cow exposed). In the past, the cow-calf segment has been criticized for expending too much time and resources on this aspect of the business in an attempt to maximize output. The results of this survey, however, found that producers ranked the production management category 7th—scoring it high enough (7.9) to be considered a very high management priority. Specialists actually ranked production decisions slightly higher (5th) than did producers, though their mean priority score was fractionally lower.

While production management ranked high, it did not make the top five priorities. This may suggest that many leading producers are taking more of a ‘systems based’ approach to running their operations that moves beyond the notion of maximizing production as the primary goal of the enterprise.

Still, production-related decisions were evaluated as being of critical importance. A modest majority of producers (60%) and specialists (51%) scored this category as a **Foundational** priority for cow-calf enterprises. Average producer scores across regional and herd size subgroups ranged from 7.3 to 8.8 (all high).

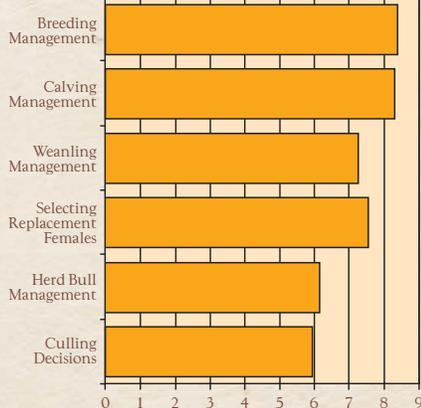
Production Subcategories

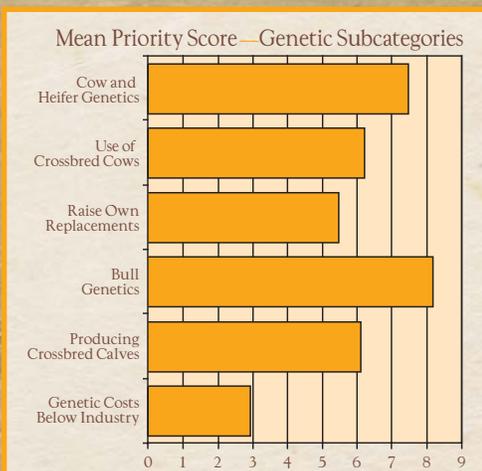
All subcategories scored above 5.0, but there appeared to be three groupings ranging from more important to less important: a) breeding and calving management (reproduction), b) weaning management and replacement heifer selection, and c) culling decisions and herd bull management. With rankings greater than 8.0, it is clear respondents view management of the breeding and calving seasons as the key to a desirable calf crop percentage.

While specialists ranked the overall category higher than did producers, producers scored all six subcategories higher, especially with regard to weaning management (+1.6), selection of replacement females (+2.3), herd bull management (+1.6), and culling decisions (+1.8). These findings perhaps point to opportunities for better serving the needs of the cow-calf sector specific to these areas of production management.

In light of the difficulty in making accurate selection decisions on which females will be successful breeders, it is interesting to note the selection of replacement females ranked considerably higher than was the ‘culling decisions’ subcategory. As herd size declined, however, producers gave higher scores to the process of culling animals from the herd.

Mean Priority Score—Production Subcategories





Genetics • Priority No.7

Mean Priority Score 7.3
 Producer Score 8.0 (6th)
 Specialist Score 6.2 (9th)

Genetic Subcategories

Top-ranking subcategories in this section include cow and replacement heifer genetics (7.5) and bull genetics (8.2). Respondents strongly favor pro-active management of genetic inputs on both the male and female side of the operation, with more emphasis on bull genetics. Sourcing genetics below an industry-average cost is not a concern (2.9). Genetics are seen as important to the productivity and financial health of the cow-calf enterprise. Therefore, genetic purchases should be treated as an investment, where value (not cost alone) is a foremost consideration in buying decisions.

Survey respondents generally favor crossbred cows (6.2) and the production of crossbred calves (6.1). However, priority scores were not as high for these two subcategories. Among participating producers 46% strongly emphasize crossbred females in their own operations, 31% moderately favor such cows, while the remaining 22% put little or no emphasis on using crossbred cows and heifers.

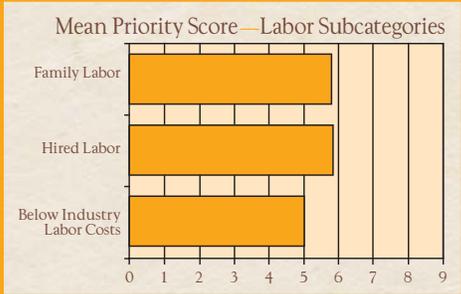
Raising one's own replacement heifers was not viewed as a strong priority overall (5.4). But there was a large difference between producer respondents (7.1) and industry specialists (3.0). Producers favor home-raised females, while specialists see purchased replacements as an equally viable option.

Survey participants view genetics as a high priority in commercial cow-calf production. This is especially true of producer respondents, who gave genetics a higher priority score than did industry specialists (8.0 versus 6.2, respectively; $P < 0.01$). Why? Perhaps producers, with more first-hand experience on their farms and ranches, have consistently observed the benefits high-quality genetics bring to their herds. They may, therefore, be convinced that genetics deserve greater emphasis. Regardless, both respondent groups did rank genetics as a top ten management priority.

Producer respondents in all regions and all herd sizes agree on the importance of genetics. Average priority scores ranged from 7.5 to 8.7 in regional and herd size sub-groups. Not surprisingly, producers that retain ownership of 90% to 100% of their calf crops through the feedyard said genetics were a higher priority compared to those who sold 90% or more of their calves at weaning (9.1 versus 7.0, respectively; $P < 0.01$).

“Our cows work in diverse country, from rough hills to lowlands. They must be adapted to their environment. Registered bulls are used for quality control. We buy the best we can find from a consistent supplier. Genetics are actually the least expensive input we have in the industry.”

— Wythe Willey, Rancher, Cedar Rapids, Iowa (survey participant)



Labor • Priority No.8

Mean Priority Score 6.7
 Producer Perspective 6.8 (8th)
 Specialist Perspective 6.4 (8th)

Labor Subcategories

On the survey’s priority scale of zero to ten, all three labor subcategories rank near the middle. Hired labor and family labor ranked identically as management priorities (5.8). However, both are heavily influenced by herd size. Family labor is more important in small and medium size herds. Hired labor concerns dominate in larger herds.

Large herds also view labor costs as fairly important. Herds with more than 1,000 cows scored ‘below average labor costs’ at 5.3 on average, compared to only 3.5 for herds with less than 200 females (P<0.05). Specialists placed more emphasis on managing labor costs than did producers (5.7 versus 4.5; P<0.05), though neither group’s score is particularly high.

Labor ranked as the 8th highest management priority in the survey. Both producers and industry specialists pegged labor management as 8th out of 15, and their mean priority scores matched closely (6.8 and 6.4, respectively). The standard deviation on labor management scores was slightly larger than the survey average, indicating slightly more variation in participant responses.

As might be expected, producers prioritize labor according to the size of their herds. Larger herds place greater management emphasis on labor (8.5 for herds over 1,000 head). Smaller herds generally rank labor as a lower priority (5.2 among those with less than 200 cows).

“Labor is a critical challenge for family ranchers, and now we have a catch-22 situation. Management generally has to come from the same person providing much of the labor needed in the operation. As labor demands go up, time allocated toward managing the business goes down. Sometimes all that’s left is management by crisis. This problem must be remedied, because good management is what ensures the financial well being of the ranch family long term.”

—Harlan Hughes, Ph.D., Livestock Economist, Laramie, Wyoming (survey participant)

Herd Size	Mean Score Family Labor	Mean Score Hired Labor
<200 cows	7.8	2.6
200-500	6.3	4.3
500-1,000	5.0	6.6
>1,000 cows	4.3	8.4

Information Priority No.9

Mean Priority Score 6.2
Producer Score 6.8 (9th)
Specialist Score 5.3 (10th)

Information management ranked in the middle of the pack according to both groups of respondents. This suggests that data and information are recognized as an important foundation for decision making, and that significant effort should be expended to be sure the right information is available within the operation. Management information should then be applied and leveraged in support of the higher priority items identified in the survey. That is, logically speaking, its primary purpose.

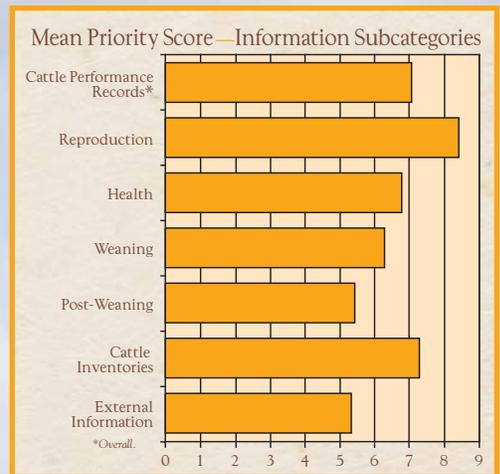
Interestingly, 42% of producers called this category **Foundational** to the cow-calf business, while only 29% of specialists said the same. Most of the remaining respondents called information management **Important** (52% of producers and 49% of specialists). It is notable that this category was viewed as considerably more important than technical services. Such disparity may indicate a gap exists between the information demanded by producers and that being provided by specialists.

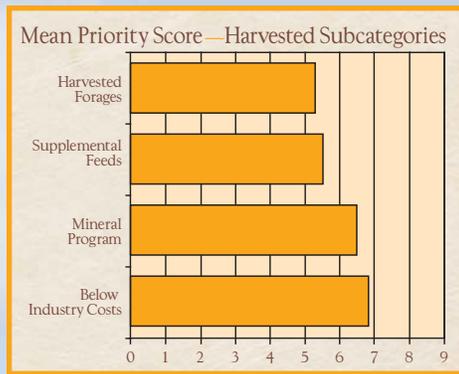
Those with herds over 1,000 head gave information management the highest numerical priority score among all producers at 7.4 (not statistically higher than other herd size groups). Producer age was not influential in how information was prioritized within the operation.

Information Subcategories

While the rankings of producers and specialists are similar, producers gave higher scores to all information management subcategories (average 1.3 units). Reproductive information scored highest (8.4), which, according to respondents, underscores how necessary such records are to support cowherd reproductive performance of the cowherd. Information on cattle inventories was next highest at 7.3. As would be expected, cattle inventory records are more important in larger herds. Producers with more than 1,000 cows pegged this subcategory at 8.8 versus 6.8 for those with fewer than 200 females ($P < 0.01$). Overall cattle performance records garnered a mean score of 7.1, which again reveals the emphasis respondents place on in-herd data and information regarding various performance measurements.

The remaining subcategories scored lower; though information related to herd health and weaning were still strong at 6.8 and 6.3, respectively. Post-weaning records scored 5.4 on average, but ranked predictably higher among producers who retain ownership of at least half their calves through the feedlot (8.2). External information scored 5.3, which still qualifies this subcategory as **Important** to success of the cow-calf enterprise.





Harvested Forages Priority No. 10

Mean Priority Score 5.9
 Producer Score 5.5 (10th)
 Specialist Score 6.6 (7th)

Harvested forages and supplemental feeds is a top ten management priority for cow-calf producers. Specialists ranked this category 7th, while producers marked it 10th. Yet the survey suggests a significant percentage of producers are de-emphasizing harvested feeds and finding other ways to satisfy the nutritional needs of their cowherds—likely through grazing stockpiled forages, changing calving seasons, weaning earlier, and making other similar changes. Producers ranked pasture and range use as a much higher management priority (8.6), helping it reach a 2nd place ranking overall.

Nearly one in five producers gave this category the lowest-possible ranking, calling it a non-priority in their operations. A small majority (52%) used **Important**, while the remaining 29% identified harvested forages and supplemental feeding as **Foundational** in their operations. There were no meaningful differences in regional or herd-size subgroups.

“We often say two things Spade Ranch can’t afford are a dry cow and a bale of hay. The latter pretty much captures our philosophy on minimizing the use of harvested forages. It appears this kind of thinking is becoming more prevalent nationwide.”

—John Welch, Spade Ranch, Lubbock, Texas (survey participant)

Harvested Forage Subcategories

The survey included four subcategories relating to harvested forages and supplemental feeds. All four ranked near the middle of the priority spectrum. Respondents recognize these aspects of the business as important, though not worthy of high-level prioritization. This perspective fit both participating specialists and producers.

‘Management and delivery of harvested forages’ earned a mean score of 5.3; lowest of the four subcategories, and indicative that reliance on harvested forages is declining in some well-managed operations. Next in line is ‘other supplemental feeds’ (non-forage feeds used primarily for energy and protein), scoring 5.5. Interestingly, specialists and especially producers ranked ‘management of mineral program’ at a higher priority level (6.5 across all respondents; with producers at 7.2 and specialists at 5.4). Participating producers actually place more management emphasis on their mineral programs than on harvested forages and non-mineral feed supplements (P<0.01). Keeping costs down received a fairly high score (6.8; highest of the four subcategories). Respondents do believe in keeping harvested forage and other feed costs below industry averages.



Herd Identification • Priority No. 11

Mean Priority Score	4.7
Producer Score	5.3 (11th)
Specialist Score	3.9 (12th)

Herd Identification Subcategories

Respondents consider herd identification subcategories that are supportive to in-herd management decisions as **Important**. Cow, calf, and bull identification, as well as herd identification for decision making, all scored 6.0 or higher. Identification used in marketing efforts averaged slightly lower scores with I.D. for traceback falling under 5.0.

Producers scored every subtopic higher than did their specialist counterparts. Subtopic rankings also differed between specialists and producers. Producers ranked bull identification as the highest priority subtopic while specialists ranked it sixth out of six. The high producer ranking is likely due to their interest in maintaining identity of sires to accommodate placement of bulls with appropriate breeding groups.

Managers of the largest cow-calf enterprises (>1,000 cows) scored each of the subtopics lower than did the managers of all other sized herds. This may be related to the difficulty of maintaining individual animal I.D. programs in large herds. Producers who owned at least 25% of their calf crop through the feedlot phase ranked each of the subcategories higher than those producers who do not retain ownership.

Herd identification is a topic of considerable discussion in the industry today. Much of the focus is based on its role in protecting the national cattle herd from disease outbreaks or as an instrument to boost consumer confidence by enabling source of origin and traceback programs. This survey, however, asked respondents to evaluate the role of identification in a broader, business management context. Results reveal how producers and specialists view herd I.D. as it fits into the profitable management of a cow-calf operation.

Identification ranked fairly low in the survey overall (11th), and producer and specialist perspectives matched closely in that regard. Responses on subcategories suggest both groups of respondents view identification systems as tools that stand in support of higher ranking management priorities—such as marketing, financial management, information collection, and production management.

Among producers, 75% scored this category **Foundational** or **Important**, while 60% of specialists assigned comparable scores. Average producer scores across regional and herd size subgroups were quite variable compared to the other 15 main survey categories (range 3.8 to 6.7).



Natural Resources • Priority No. 12

Mean Priority Score 4.2
 Producer Score 4.6 (12th)
 Specialist Score 3.7 (13th)

Natural resources management is not *Foundational* to profitability in the cow-calf business, according to survey participants. This category ranked 12th overall. Specialist scores within regional subgroups ranged from 3.2 to 4.4 (between *Beneficial* and *Important*). Mean producers scores across regions were more variable, ranging of 3.2 to 7.5 (highest in the Western U.S.). Producers are not indifferent to managing their natural resources. Recall that pasture and range management ranked 2nd in the survey overall. The point is that, for most producers, natural resources management is not a key factor in keeping the operation profitable.

Priority scores for natural resources management were higher among those with larger herds. Producers with more than 1,000 head = 6.1; 500 to 1,000 head = 4.7; and less than 500 cows = 3.5.

“Our greatest challenge in ecology, and in conservation, will be our ability to think, study, fail, and learn at scales that don’t lend themselves to scientific tidiness.”

— Bob Budd, Ranching West of the 100th Meridian

Natural Resources Subcategories

Subtopic rankings point to four areas of highest priority—riparian management, regulatory compliance, wildlife issues, and water quality. Due to the extensive nature of cow-calf management it is not surprising that manure management, lagoon management, and air quality ranked lowest. Few producers have just reason to be overly concerned with these issues. Producers scored riparian and wildlife management considerably higher than did the specialists.

Riparian area management is viewed as particularly important to both specialists and producers in the Southwest and Northwest. Wildlife management was ranked high by specialists in the Southern Plains and also by producers in the Northwest.

Educational initiatives on these topics probably need to be regionalized to meet the unique needs of producers in the various geographies of the U.S. The development of meaningful and cost effective monitoring tools coupled with a systematic approach to complying with environmental regulation is also needed.

Biosecurity Priority No. 13

Mean Priority Score 4.1
Producer Score 4.5 (13th)
Specialist Score 3.5 (14th)

Biosecurity is not considered *Foundational* to profitability, with a final ranking of 13th and a mean priority score of only 4.1. Producers and specialists were in agreement on this topic, as most ranked and scored this topic near the bottom of the economic priority list. Twice as many respondents labeled this category *Beneficial* compared to those saying it is *Foundational* (36% versus 18%, respectively). The highest frequency response was *Important* at 47%.

Respondents also do not view biosecurity as hand in glove with animal health, given the much higher ranking for herd health management (3rd of 15). These results might well change if a disease outbreak or terrorist attack on the food supply were to occur. However, at the present time, biosecurity is not a major concern for most producers in the cow-calf business. Average priority scores across region and herd size ranged from 3.8 to 5.3.

“In mid 2005, USDA’s Food Safety Inspection Service announced that the agency was changing its official heading regarding bio-terrorism from plant security to food defense.”

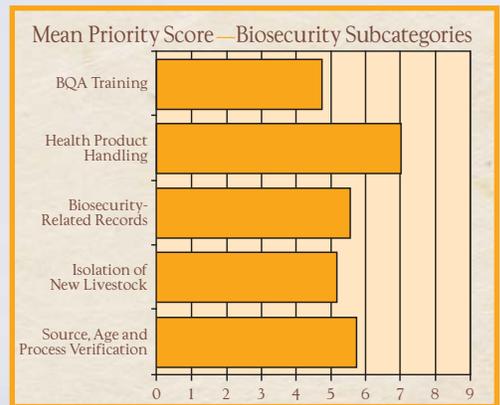
— Food Quality Magazine, 2006

Biosecurity Subcategories

Producers scored each of the five biosecurity subcategories significantly higher than did the specialists (differences ranged from 1.1 to 2.3 units), which may mean producers are more aware of biosecurity issues than some specialist groups. Nonetheless, all respondents advocate correct health product management and administration, calling it a high priority (7.0). Respondents also scored biosecurity-related record keeping, quarantine and isolation protocols, and source, process and age verification above 5.0.

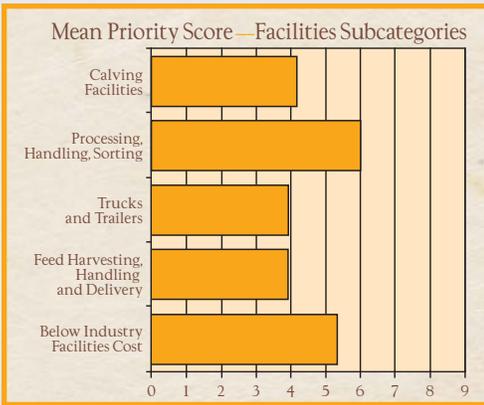
Surprisingly, beef quality assurance training lagged the other subcategories. This suggests that respondents are either comfortable with the current level of training provided in their enterprise, and/or they don’t see the value in further training. Responses relative to record keeping and verification protocols suggest the industry views these biosecurity subcategories as *Important* (usually necessary for profitability).

The extensive nature of cow-calf management undoubtedly contributes to the perspective respondents had on this topic. Most simply are not focused on biosecurity issues, other than the correct handling of pharmaceuticals.



Facilities & Equipment Priority No. 14

Mean Priority Score 3.7
 Producer Score 4.3 (14th)
 Specialist Score 2.7 (15th)



Facilities were consistently ranked low, although the standard deviation of responses was modestly above the survey average. The convenience and efficiency of functional facilities is more appreciated by producers as 68% scored facilities as **Foundational** or **Important**, while only 51% of specialists assigned comparable scores. **Beneficial** was the descriptor used by 32% of producers and 49% of responding specialists. Average scores across regions varied from 3.7 to 5.0. Among different herd size groups, responses were slightly more variable, ranging from 3.3 to 5.2. However, no distinct relationship between cow numbers and facility prioritization was apparent.

While specialists and producers had similar overall rankings, the priority scores they assigned to facility subcategories were considerably different, suggesting a somewhat different perspective on facilities.

“If it rusts, rots, or depreciates, own as little of it as is possible.”

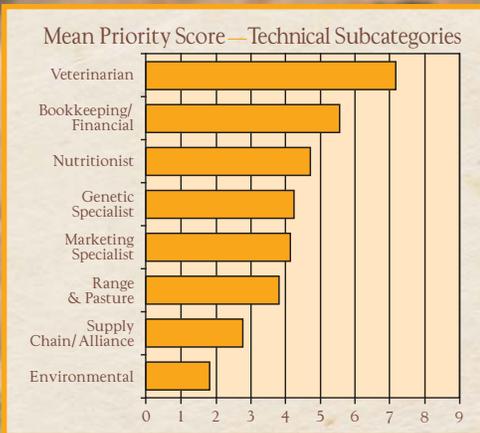
— Colorado Rancher

Facilities Subcategories

The differences in subcategory scores between producers and specialists were as follows:

Facilities/Equipment	Producers	Specialists	Difference
Calving	4.6	3.6	0.9
Processing/handling/sorting	7.0	4.3	2.7
Truck & trailer	4.7	2.8	1.9
Feed harvesting/handling	4.4	3.3	1.1
Below average costs	5.2	5.5	-0.3

The two subcategories of greatest importance were processing facilities and maintaining below industry average facility and equipment costs. Producers were more inclined to rank the need for cattle handling and processing facilities high as compared to the specialists. This was also the case for calving facilities, trucks and trailers, as well as feed harvesting and handling equipment. Both groups perceive that facility costs in general needed to be controlled to assure profitability.



Technical Support • Priority No. 15

Mean Priority Score 3.3
 Producer Perspective 2.9 (15th)
 Specialist Perspective 4.1 (11th)

Technical Support Subcategories

The highest-ranking technical support providers were veterinarians and financial specialists. Veterinarians scored especially high at 7.2. Financial specialists came in next at 5.6. All other specialist subcategories dropped below 5.0.

Producer and specialist scores diverged somewhat in two specialist subcategories – range/pasture and genetics. Specialists scored technical support from pasture and range experts 1.1 points higher than did producers. Relative to genetics expertise, producers scored these services 1.3 points higher than did specialist respondents.

Two trends emerged in regards to herd size. As herd size increased, so did average scores for financial specialists (6.9 for herds >1,000 head versus 4.0 among herds less than 200 cows; $P < 0.01$). Smaller herds scored supply chain/alliance specialists numerically higher than larger herds (3.3 for herds with less than 200 head compared to 2.4 for the largest operations).

Technical support was not perceived as crucial to profitability as indicated by its low overall ranking. However, this result should not be interpreted to mean producers do not want high quality information and technical support. Rather, such services are seen as being in a supportive role to higher-level management priorities and decision-making. It should also be noted that a majority of producer respondents were middle-aged managers at the height of their careers in the cow-calf business. Their need for technical support is lower compared to younger and/or less experienced producers.

Approximately one-half of producers scored this category **Important** or **Foundational** while 70% of specialists assigned the same scores. It is not surprising that specialists scored technical support at a higher level than did producers (though their mean priority score still came in below 5.0). Many of the specialists surveyed operate in a multi-disciplinary realm, and thus rely on the expertise of others in making sound recommendations to client producers. Plus, they are, themselves, directly involved in providing such services to cow-calf farmers and ranchers.

“I need great information from people I can trust.”

— Nebraska Cattle Producer



Conclusion

The information age has spawned a flow of data, advice and technical communication that borders on the unmanageable. Our forefathers could not have imagined the volume or ease of access to information we enjoy. Yet the new challenge is distilling the myriad of facts, ideas, and possibilities into a cohesive management plan that allocates time and resources according to economic priorities.

To help meet that challenge, the current study sought to identify the most important cow-calf management priorities. So far as the author is aware, this research is the first of its kind. Hopefully, it will not be the last. Producers and technical specialists (who support cow-calf producers) are confronted with mountains of information on individual aspects of the cow-calf business, which is often presented as stand alone facts and principles. This information needs to be integrated and applied according to economic priorities within the cow-calf enterprise. Prioritizing management activities and aligning

the industry's information resources with these priorities is an important step toward improving producer profitability.

Results of this study help address these issues in at least three key ways:

1. Identification of priorities among the many aspects of cow-calf production
2. Provide beef producers with a means of filtering the constant barrage of data and information so they can avoid distractions and apply the most meaningful information to those aspects of the business that matter most
3. Evaluate gaps between producer and specialist responses, thereby identifying opportunities to more strategically align specialist resources with industry needs.

Appropriate application of this information
will vary somewhat from operation to operation.

The overall findings, however,
should be beneficial to all who use them.

ANGUS

THE BUSINESS BREED

The American Angus Association extends a sincere debt of gratitude to Tom Field and all respondents participating in this project. Moving the beef industry forward through steady, unwavering improvement requires an enormous collaborative effort. From the smallest commercial cow-calf producer to the largest, registered seedstock suppliers, cattle feeders, scientists, packers and food processors—commitment to change is the responsibility of us all.

Priorities First is the foundational component to a multi-year project designed to lead the beef industry forward. Through education, the American Angus Association will lead the industry as a formidable protein competitor and keep beef as the preferred “center of the plate” solution for consumers around the world. The customer has spoken. Our mission is clear. We can’t stop now.







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