

Priorities First

Identifying management priorities in the commercial cow-calf business.

by Tom Field



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 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, Colorado State University, studied the responses of more than 200 producers and industry specialists. The participants had no knowledge regarding the Association’s sponsorship. As a result, the study is an unbiased report representing cow-calf producers, nutritionists, veterinarians, marketing professionals and reproduction specialists.

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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. Therein lies the challenge: What are the most important tasks? On which management priorities should the cow-calf operator place the greatest emphasis and allocation of resources? And 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 cow herd 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.

Acknowledgements

The author appreciates the sponsorship of the American Angus Association, through which this project was completed. Thank you for your continued dedication to commercial cow-calf producers nationwide. Thanks also to Tom Brink of Brighton, Colo., for his ideas and support of this effort.

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.

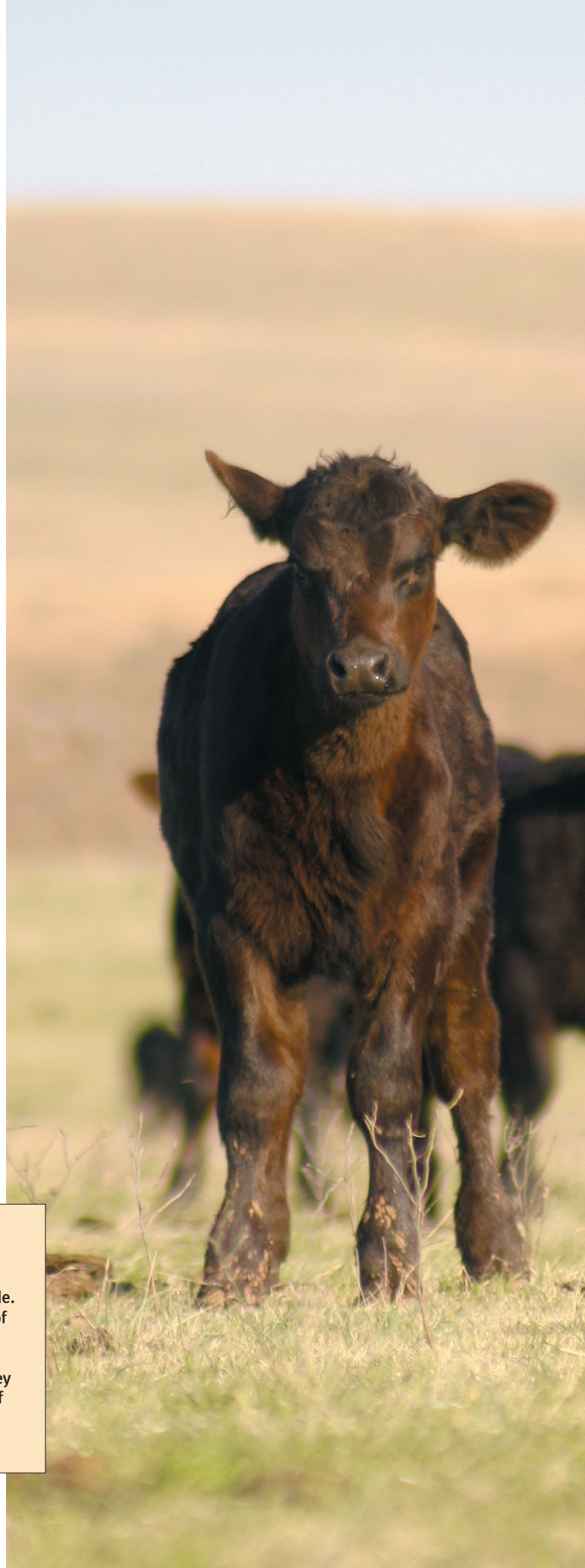


Table 1: Fifteen major management categories survey respondents were asked to rank

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|--|--|
| ▶ Herd nutrition | ▶ Facilities and equipment |
| ▶ Pasture and range management | ▶ Information management and recordkeeping |
| ▶ Harvested forages and supplemental feeds | ▶ Herd identification system |
| ▶ Production management | ▶ Marketing |
| ▶ Genetics | ▶ Financial management |
| ▶ Herd health | ▶ Natural resources and environmental management |
| ▶ Biosecurity and quality assurance | ▶ Technical support from specialists |
| ▶ Labor management and cost | |

Methods

To meet the 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 (see Table 1). 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 asked to rank each subcategory according to its importance in successful management of the cow-calf enterprise.

Demographic information was collected from responding producers to better characterize their operational goals and perspectives.

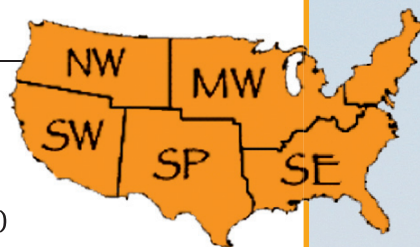
Respondents were asked to rank each category according to its importance using three straightforward alternatives:

- ▶ **Foundational** — an absolutely critical aspect of the business that must be prioritized highly and managed well if profitability is to be attained.
- ▶ **Important** — a part of the business that is usually needed and should be well-managed to keep the operation profitable.
- ▶ **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 interrelationships 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 subgroups for clearer interpretation.

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Table 2: Cow-calf producer demographics



Respondent description:

- ▶ 22% operation owners or part owners
- ▶ 62% owner/managers
- ▶ 16% managers

Herd size:

- ▶ 25% fewer than 200 cows
- ▶ 23% 200 to 499 cows
- ▶ 23% 500 to 1,000 cows
- ▶ 29% more than 1,000 cows

Respondent age:

- ▶ 13% younger than 40 years old
- ▶ 64% 40 to 59 years
- ▶ 23% 60 years or older

Respondent location:

- ▶ 23% Midwest (MW)
- ▶ 10% Northwest (NW)
- ▶ 28% Southeast (SE)
- ▶ 30% Southern Plains (SP)
- ▶ 9% Southwest (SW)

Marketing strategy:

- ▶ 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

Respondents

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. Table 2 provides an overview of herd size, respondent age and location, and their marketing strategy.

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 (see 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.

Whatever their operation’s size, 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

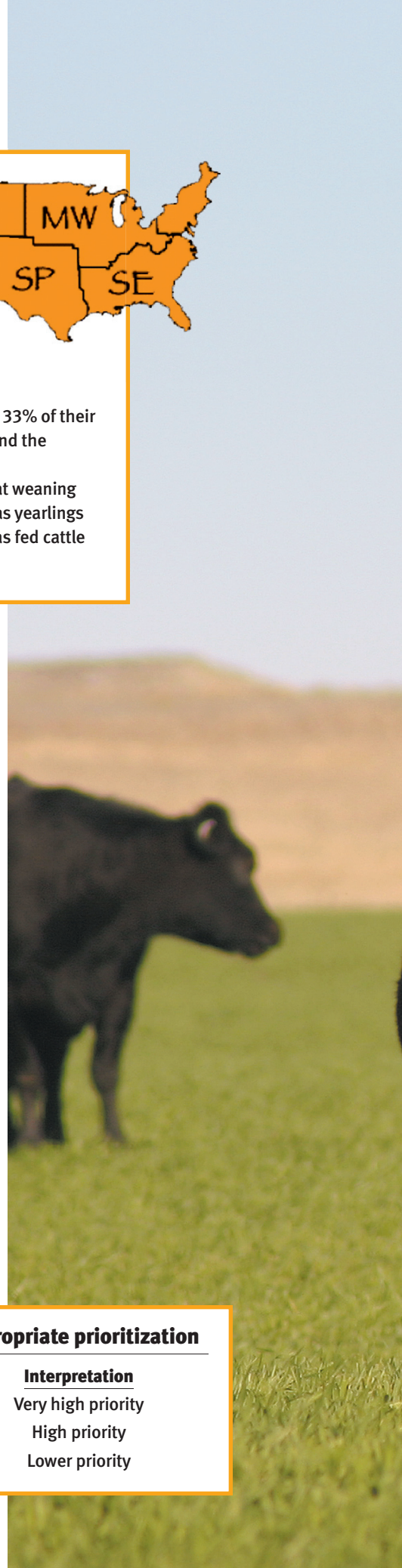


Table 4: Overall priority ranking and mean priority score for the 15 major management categories

Management category	Survey rank	Mean score	First-ranked subcategory	Second-ranked subcategory
Herd nutrition	1	8.87	Cow herd nutrition	Replacement heifer nutrition
Pasture and range management	2	8.53	Stocking rate	Timing and duration of grazing
Herd health	3	8.25	Calves preweaning	Calves postweaning
Financial management	4	8.23	Cost accounting	Cash-flow analysis
Marketing	5	8.06	Marketing calves	Choice of market channel
Production management	6	7.78	Breeding management	Calving management
Genetics	7	7.30	Bull genetic merit	Cow and heifer genetic merit
Labor management and cost	8	6.66	Hired labor	Family labor
Information management and records	9	6.20	Reproductive data	Inventory data
Harvested forages/supplemental feeds	10	5.94	Below-industry cost	Mineral program
Herd ID system	11	4.72	Cow ID	Herd ID for decision-making
Natural resources and environment	12	4.24	Healthy riparian areas	Environmental compliance
Biosecurity and quality assurance	13	4.08	Product handling	Source, age, process verification
Facilities and equipment	14	3.69	Processing, sorting, handling	Below-average costs
Technical support from specialists	15	3.34	Veterinarian	Financial specialist

Overview of results

Table 4 and Fig. 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 to 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 (5.9 to 8.9) on the survey's numeric scale, placing them solidly between *important* and *foundational* in the minds of those completing the survey.

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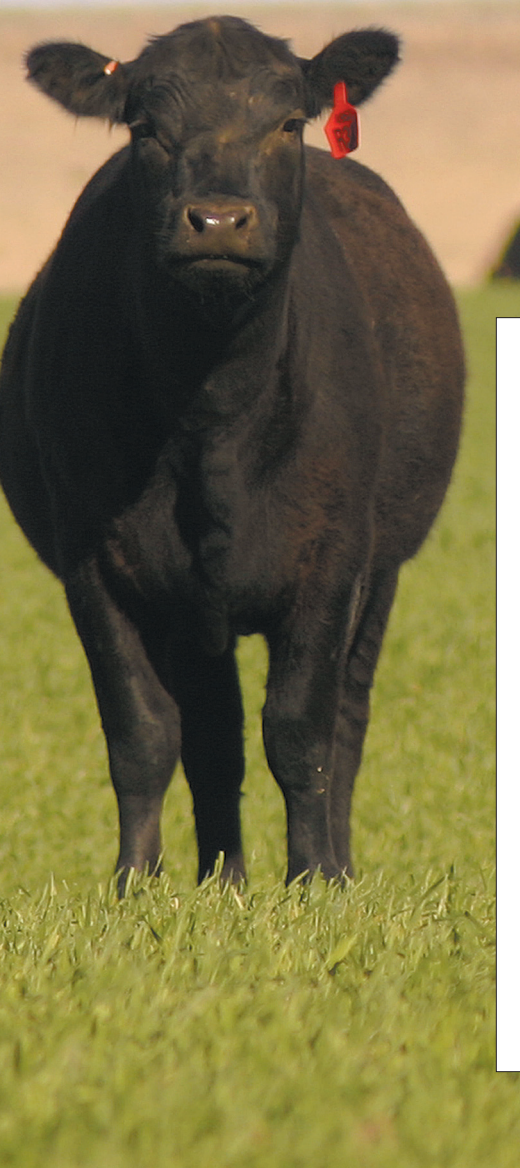
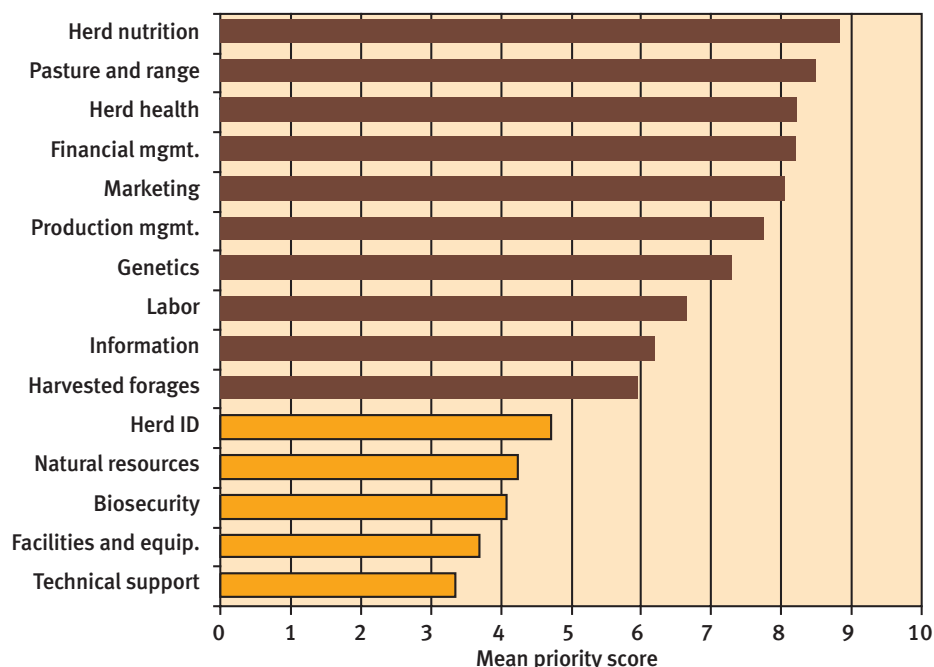


Fig. 1: Cow-calf management priorities



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 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-five, middle-five and bottom-five priorities. With one exception (specialists ranked herd health sixth and production management fifth), 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.

Key messages

The following summarizes key findings of the top 10 overall categories.

1. Herd nutrition. Respondents were in strong agreement ranking nutrition the No. 1 management priority.

2. Pasture and range management. Respondents emphasized grazing as the preferred route to ensuring adequate nutrition for the cow herd. (Harvested forages and supplemental feeds ranked 10th in the survey.)

3. Herd health. Results underscore 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. Genetics was 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 it 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.

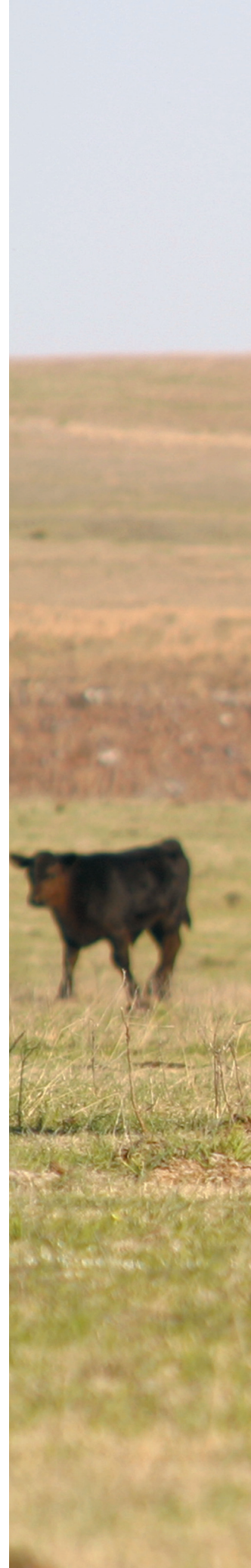
10. Harvested forages. This category completed the top 10, but with specialists ranking this topic higher than producers. Respondents were keen on maintaining lower-than-industry-average costs in this category.

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.

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

Table 5: Producer and industry specialist priority rankings of 15 major management categories

Management category	Producer rank	Specialist rank
Herd nutrition	1	1
Pasture and range management	3	2
Herd health	2	6
Financial management	4	3
Marketing	5	4
Production management	7	5
Genetics	6	9
Labor management and cost	8	8
Information management and records	9	10
Harvested forages/supplemental feeds	10	7
Herd ID system	11	12
Natural resources and environment	12	13
Biosecurity and quality assurance	13	14
Facilities and equipment	14	15
Technical support from specialists	15	11



“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 cow herd performance with low nutritional costs could be the greatest challenge this segment of the industry faces.”

— Twig Marston, Kansas State University

Priority No. 1

Herd Nutrition

Mean priority score	8.9
Producer score	9.0 (1st)
Specialist score	8.7 (1st)

Herd nutrition was identified as the No. 1 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 (the 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 subgroups.

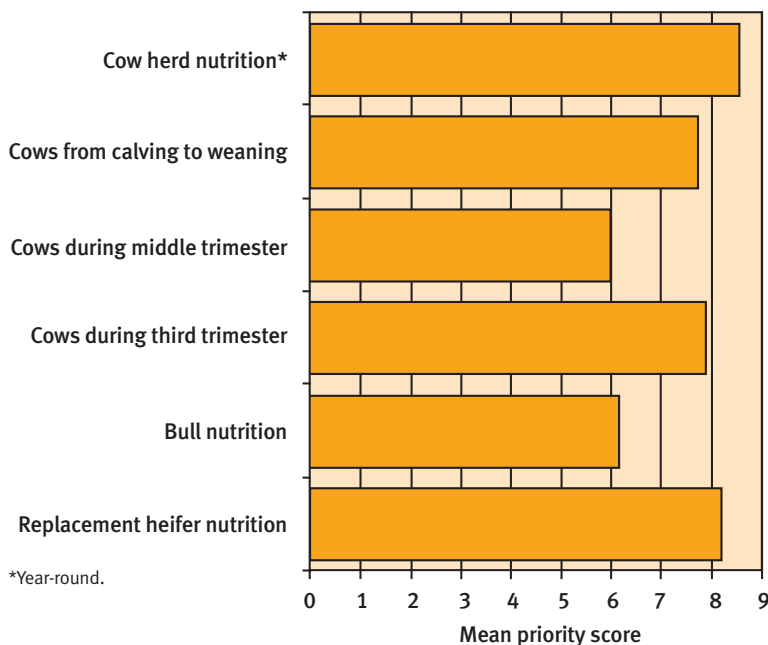
Subcategories. Six nutritional subcategories were included in the survey. Four of the six scored very high (from 7.7 to 8.6) as shown in Fig. 2. These included cow herd nutrition overall, cow herd nutrition from calving to weaning, cow herd nutrition during the third trimester of gestation, and replacement 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).

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Fig. 2: Mean priority score — nutrition subcategories



Priority No. 2

Pasture and Range Management

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 cow herd 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 subgroups, mean priority scores for participating producers ranged from 7.7 to 9.6 (all high).

Subcategories. Highest-ranking subcategories (see Fig. 3) 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, but they 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.

“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

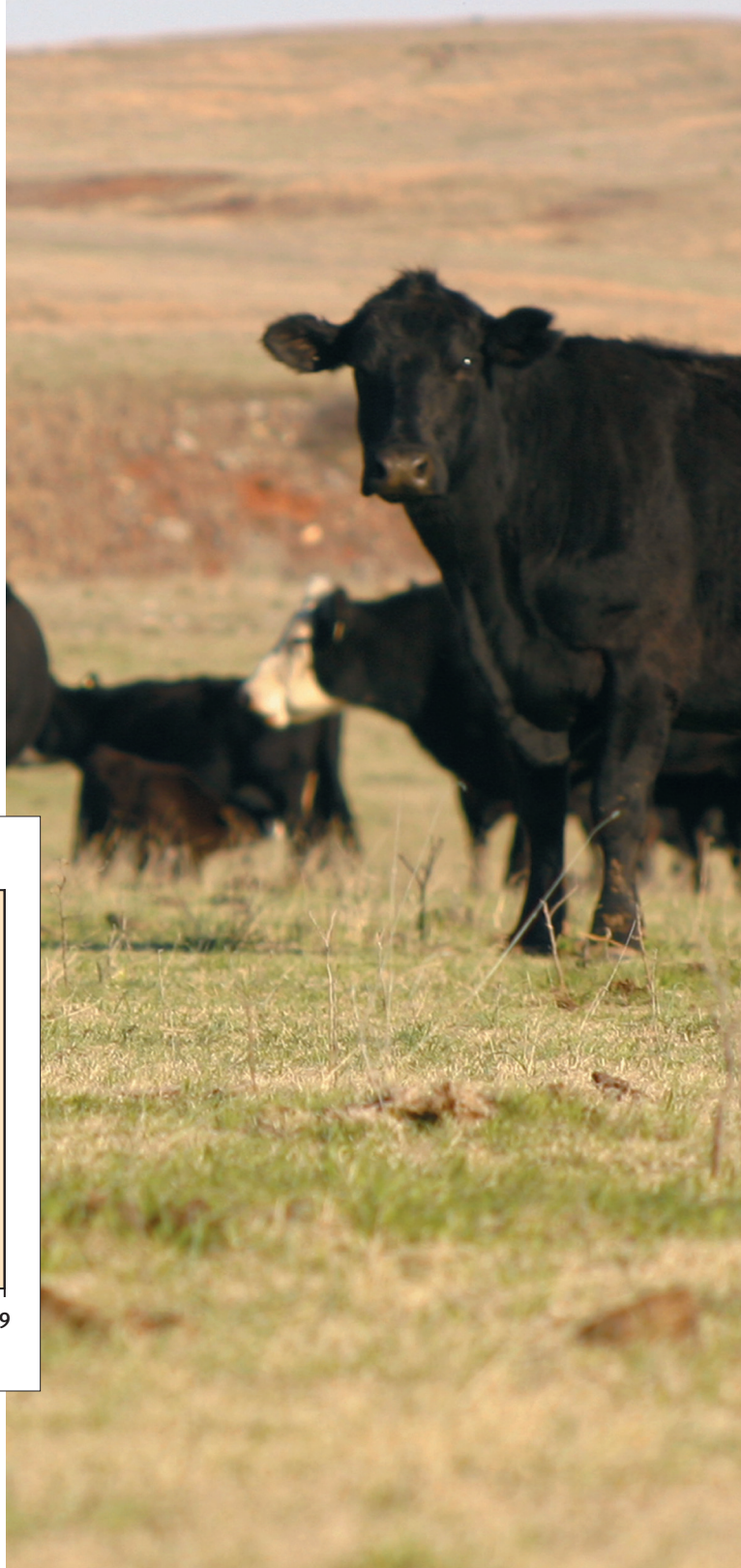
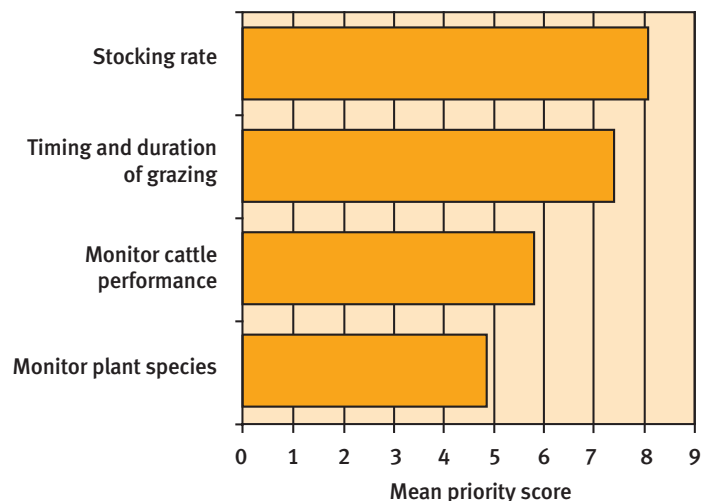


Fig. 3: Mean priority score — pasture subcategories



“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.”

— Arn Anderson, veterinarian, Bowie, Texas

Priority No. 3

Herd Health

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 subgroups.

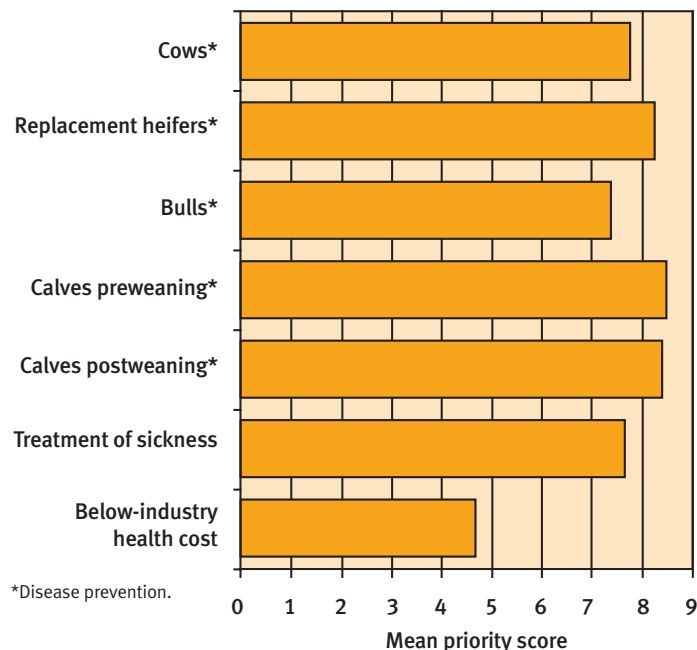
Subcategories. Seven herd health subcategories were included in the survey. Five of these focused on disease prevention (health maintenance). Mean priority scores were quite high for health maintenance in cows, bulls, and especially replacement heifers and calves, both pre- and postweaning (see Fig. 4).

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.

Fig. 4: Mean priority score — health subcategories



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Priority No. 4

Financial Management

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 of 8.2, with greater-than-average consistency in responses; see Fig. 5). 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 subgroups.

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.

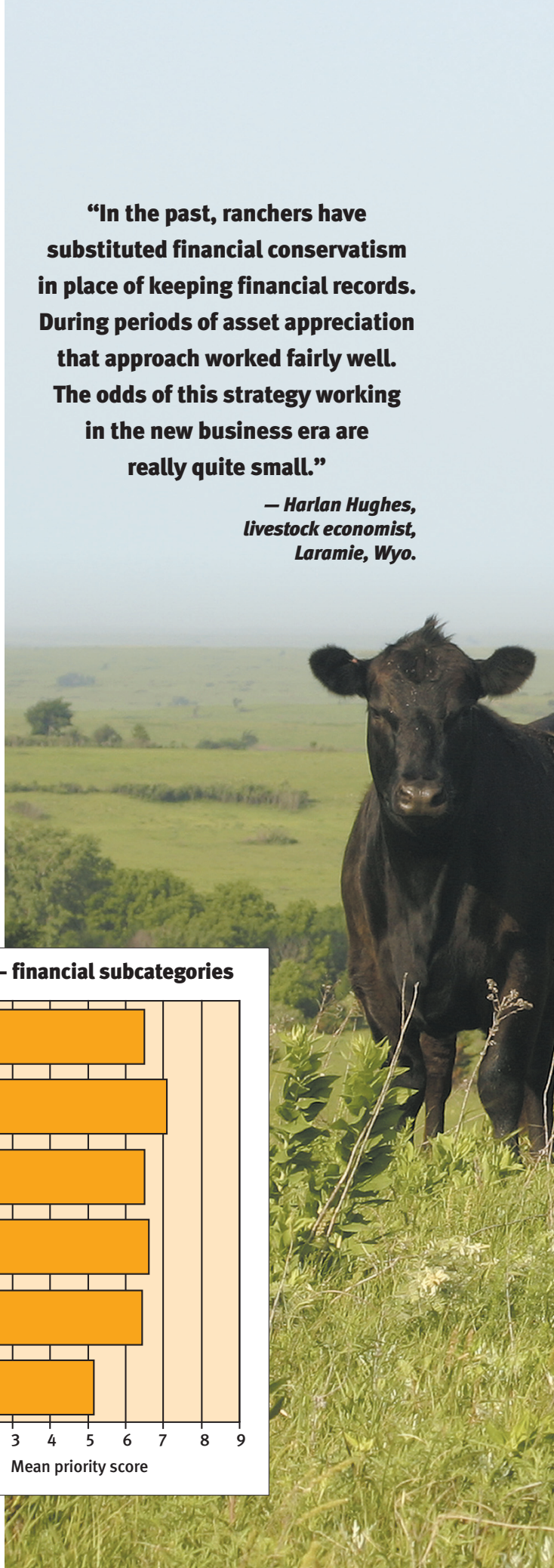
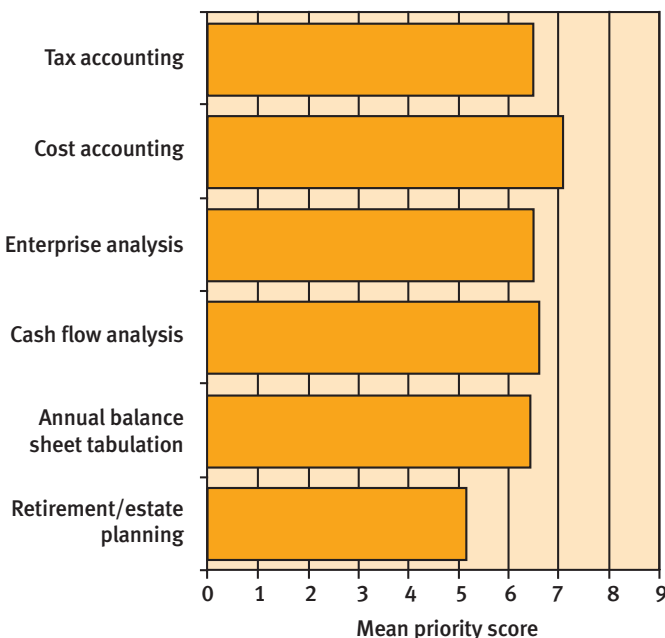
Financial/accounting technical services were ranked second in importance to veterinarians (see "Technical Support" summary, page 261), which lends additional strength to the prioritization of this category overall.

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 recordkeeping and analysis packages that also meet the needs of producer respondents as discussed in the "Information Management" summary presented on page 255 in this report.

“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,
livestock economist,
Laramie, Wyo.**

Fig. 5: Mean priority score — financial subcategories



“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

Priority No. 5

Marketing

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 subgroups.

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.

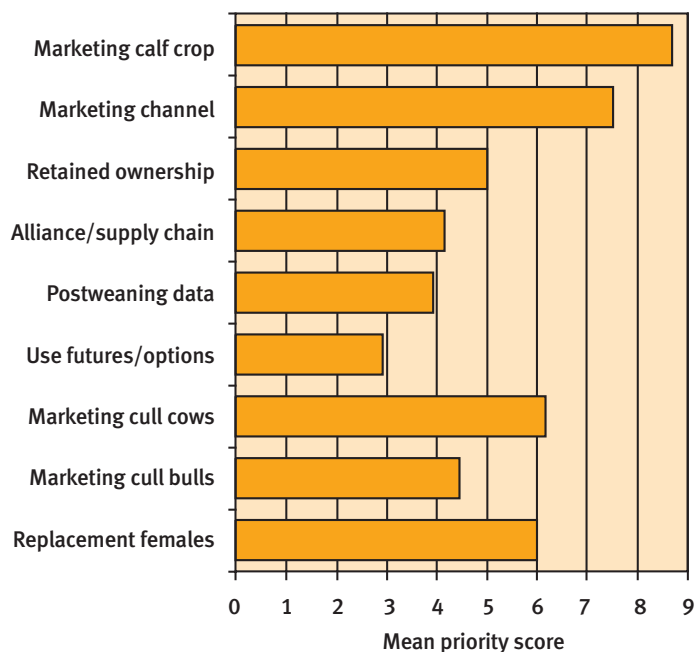
Selecting the right marketing channel (auction, video, direct sales, retaining ownership beyond weaning, etc.) for the calf crop also scored high (7.5) as an important part of the marketing program.

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%-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 category of *beneficial* but not essential. Use of futures and/or options ranked lowest among marketing subcategories (2.9), and is thus a lower priority for most cow-calf producers.

Fig. 6: Mean priority score — marketing subcategories



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Priority No. 6

Production Management

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 seventh — scoring it high enough (7.9) to be considered a very high management priority. Specialists actually ranked production decisions slightly higher (fifth) 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).

Subcategories. All subcategories scored above 5.0 (see Fig. 7), 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.

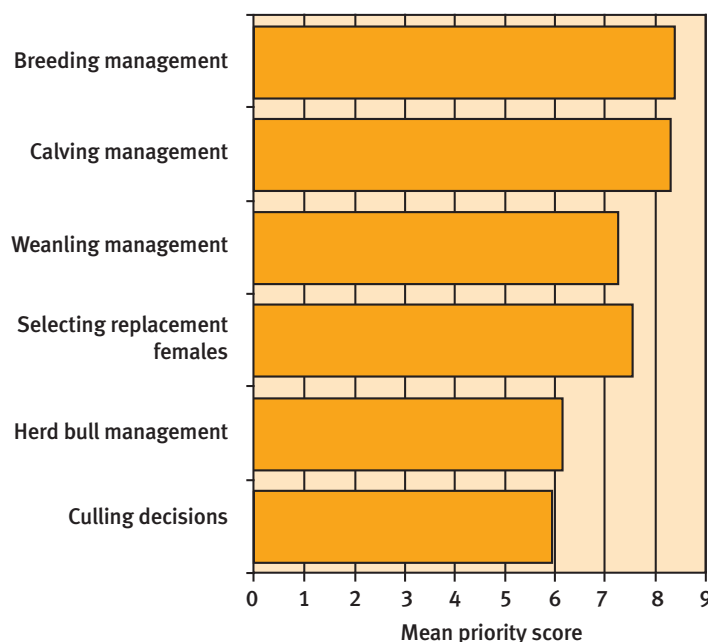
With rankings greater than 8.0, it is clear respondents view management of the breeding and calving seasons as the key to a desirable calf crop percentage.

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.



Fig. 7: Mean priority score — production subcategories



“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**

Priority No. 7

Genetics

Mean priority score	7.3
Producer score	8.0 (6th)
Specialist score	6.2 (9th)

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 vs. 6.2, respectively; $P < 0.01$). Why? Perhaps producers, with more firsthand 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 10 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 subgroups.

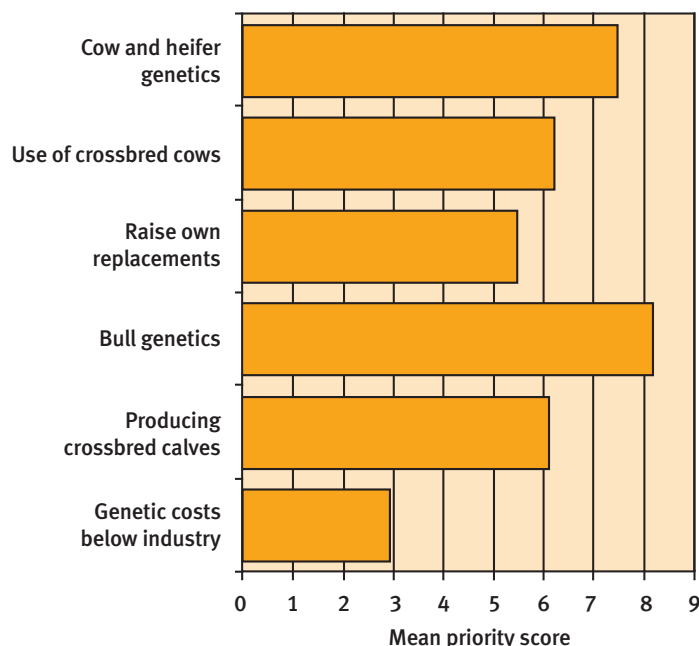
Not surprisingly, producers who retain ownership of 90%-100% of their calf crops through the feedyard said genetics were a higher priority compared to those who sold 90% or more of their calves at weaning (9.1 vs. 7.0, respectively; $P < 0.01$).

Subcategories. Top-ranking subcategories in this section (see Fig. 8) include cow and replacement heifer genetics (7.5) and bull genetics (8.2). Respondents strongly favor proactive 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 how producer respondents (7.1) and industry specialists (3.0) scored the subcategory. Producers favor home-raised females, while specialists see purchased replacements as an equally viable option.

Fig. 8: Mean priority score — genetics subcategories



CONTINUED ON PAGE 254

Priority No. 8

Labor Management and Cost

Mean priority score	6.7
Producer score	6.8 (8th)
Specialist score	6.4 (8th)

Labor ranked as the eighth-highest management priority in the survey. Both producers and industry specialists pegged labor management as eighth 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 of more than 1,000 head). Smaller herds generally rank labor as a lower priority (5.2 among those with fewer than 200 cows).

Subcategories. On the survey’s priority scale of zero to 10, 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 vs. 4.5; P<0.05), though neither group’s score is particularly high.

“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, livestock economist, Laramie, Wyo.

Fig. 9: Mean priority score – labor subcategories

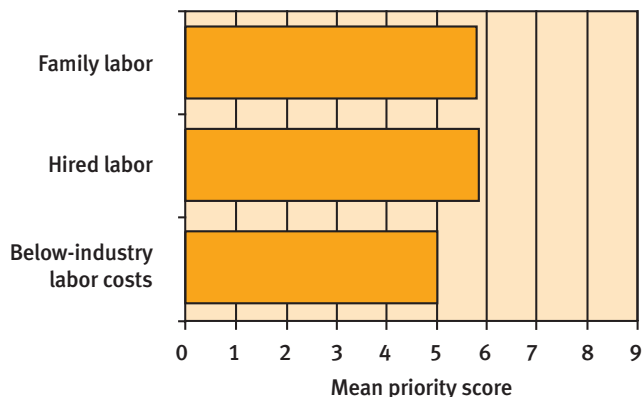
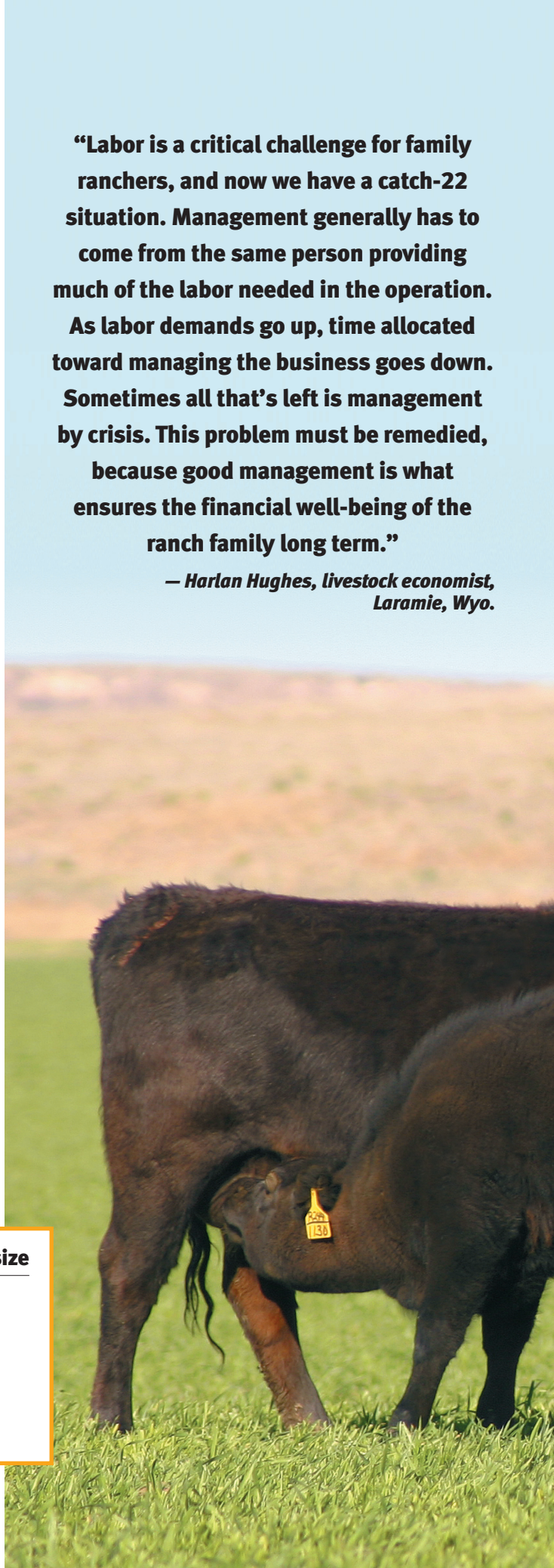


Table 6: Mean score for family and hired labor, by herd size

Herd size	Mean score family labor	Mean score hired labor
<200 cows	7.8	2.6
200-500 cows	6.3	4.3
500-1,000 cows	5.0	6.6
>1,000 cows	4.3	8.4

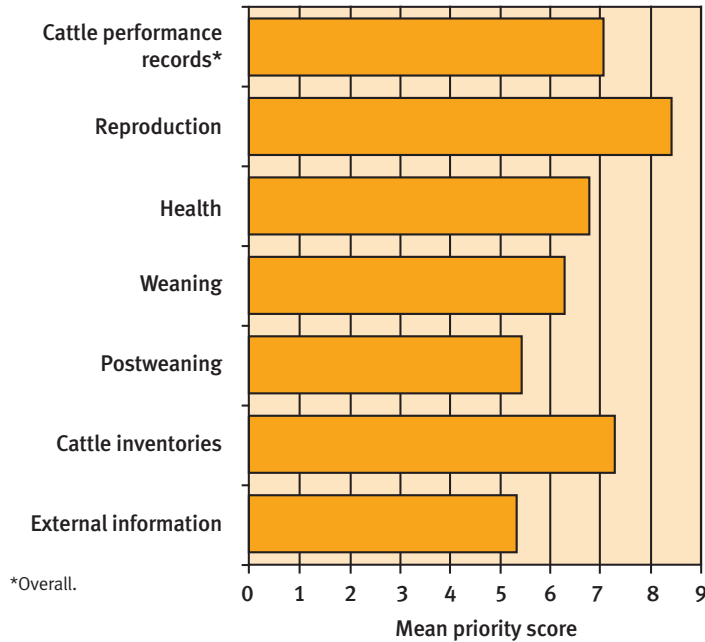


Priority No. 9

Information Management

Mean priority score	6.2
Producer score	6.8 (9th)
Specialist score	5.3 (10th)

Fig. 10: Mean priority score — information subcategories



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 with more than 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.

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 reproductive performance of the cow herd.

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 vs. 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. Postweaning 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.



Priority No. 10

Harvested Forages and Supplemental Feeds

Mean priority score	5.9
Producer score	5.5 (10th)
Specialist score	6.6 (7th)

Harvested forages and supplemental feeds are a top 10 management priority for cow-calf producers. Specialists ranked this category seventh, 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 cow herds — 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 second-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.

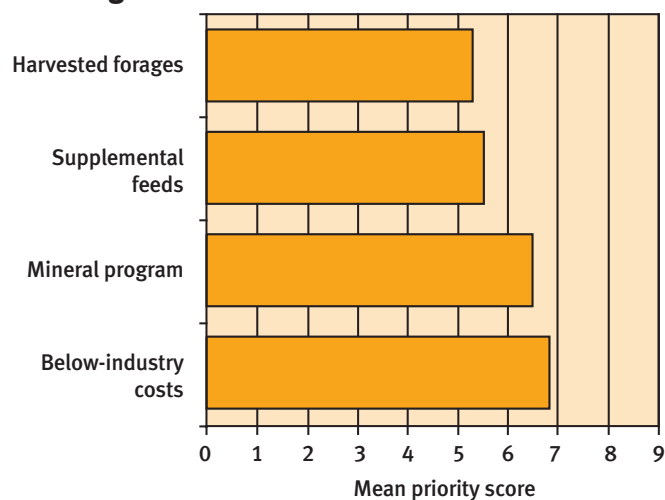
Subcategories. The survey included four subcategories relating to harvested forages and supplemental feeds. All four ranked near the middle of the priority spectrum. Respondents recognize these aspects of the business as important, though not worthy of high-level prioritization. This perspective fit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

Fig. 11: Mean priority score — harvested forages subcategories



“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



Priority No. 11

Herd Identification

Mean priority score	4.7
Producer score	5.3 (11th)
Specialist score	3.9 (12th)

Herd identification (ID) 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 ID in a broader, business management context.

Results reveal how producers and specialists view herd ID as it fits into the profitable management of a cow-calf operation. ID 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 ID 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).

Subcategories. Respondents consider herd ID subcategories that are supportive to in-herd management decisions as *important*. Cow, calf and bull ID, as well as herd ID for decision-making, all scored 6.0 or higher.

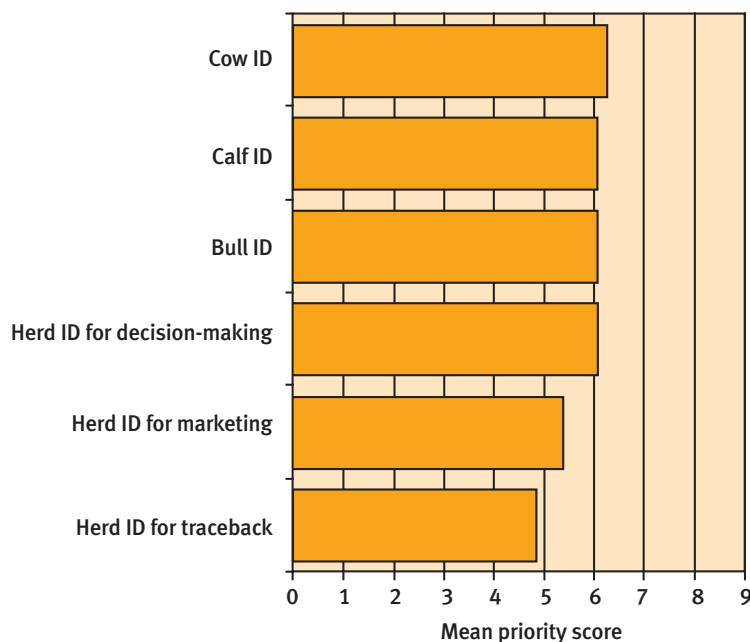
ID used in marketing efforts averaged slightly lower scores with ID for traceback falling under 5.0.

Producers scored every subtopic higher than did their specialist counterparts. Subtopic rankings also differed between specialists and producers. Producers ranked bull ID 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-size herds. This may be related to the difficulty of maintaining individual animal ID 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.

Fig. 12: Mean priority score — identification subcategories



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Priority No. 12

Natural Resources

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 producer 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 second 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 cows give it an average score of 6.1; producers with 500-1,000 cows, 4.7; and producers with fewer than 500 cows, 3.5.

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.

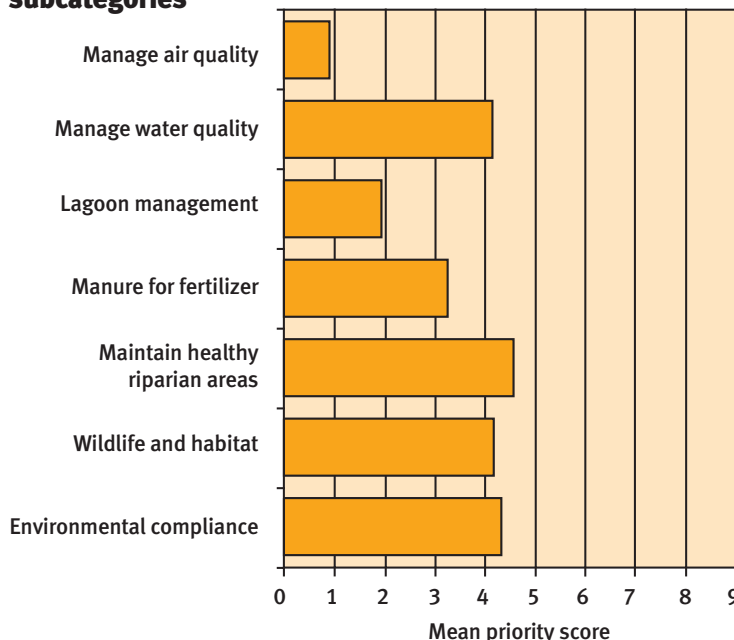
Educational initiatives on these topics probably need to be regionalized to meet the unique needs of producers in the various geographies of the U.S. The development of meaningful and cost-effective monitoring tools coupled with a systematic approach to complying with environmental regulation is also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

“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



Fig. 13: Mean priority score — natural resources subcategories



“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

Priority No. 13

Biosecurity

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% vs. 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 (third 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.

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).

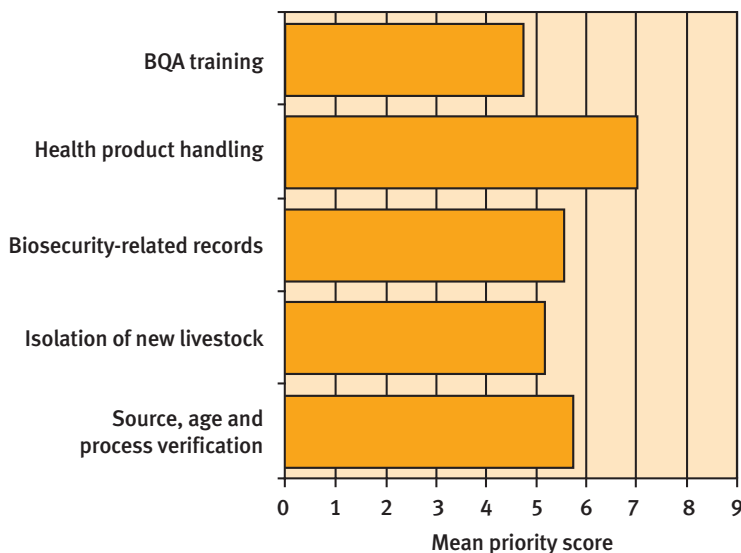
Respondents also scored biosecurity-related recordkeeping, quarantine and isolation protocols, and source, process and age verification above 5.0.

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 recordkeeping 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.

Fig. 14: Mean priority score — biosecurity subcategories



Priority No. 14

Facilities and Equipment

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.

Subcategories. The differences in subcategory scores between producers and specialists are shown in Table 7.

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 for feed harvesting and handling equipment.

Both groups perceive that facility costs in general needed to be controlled to assure profitability.

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

— Colorado rancher

Fig. 15: Mean priority score — facilities and equipment subcategories

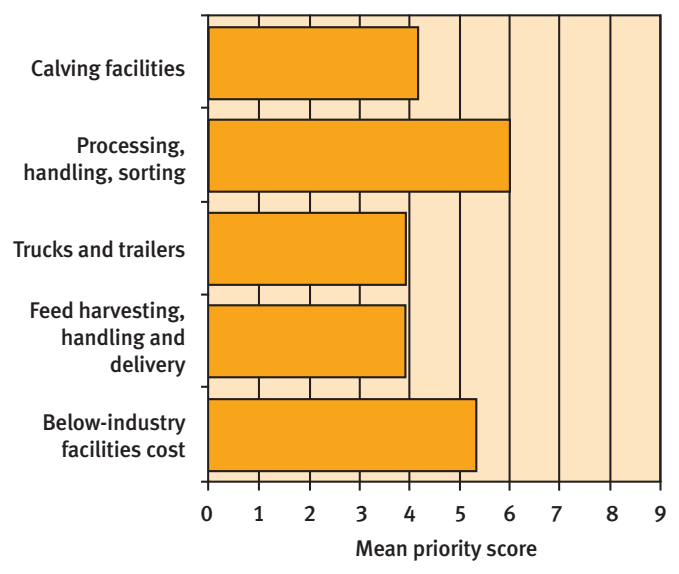


Table 7: Mean score differences facilities and equipment subcategories

Facilities and equipment	Producers	Specialists	Difference
Calving facilities	4.6	3.6	0.9
Processing, handling, sorting	7.0	4.3	2.7
Trucks and trailers	4.7	2.8	1.9
Feed harvesting, handling and delivery	4.4	3.3	1.1
Below-industry-average costs	5.2	5.5	-0.3

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

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

— Nebraska cattle producer



Priority No. 15

Technical Support

Mean priority score	3.3
Producer score	2.9 (15th)
Specialist score	4.1 (11th)

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.

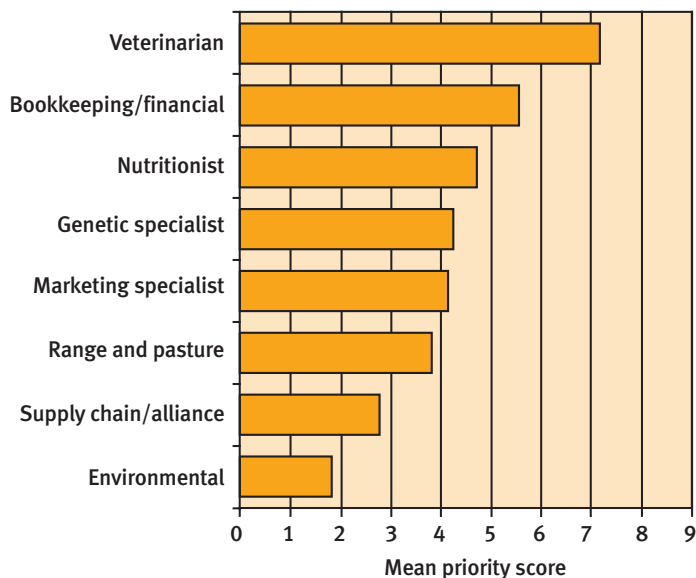
It is not surprising that specialists scored technical support at a higher level than did producers (though their mean priority score still came in below 5.0). Many of the specialists surveyed operate in a multidisciplinary realm, and thus they rely on the expertise of others in making sound recommendations to client producers. Plus, they are themselves directly involved in providing such services to cow-calf farmers and ranchers.

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 regard to herd size. As herd size increased, so did average scores for financial specialists (6.9 for herds with more than 1,000 cows vs. 4.0 among herds with fewer than 200 cows; $P < 0.01$). Smaller herds scored supply chain/alliance specialists numerically higher than larger herds (3.3 for herds with fewer than 200 head compared to 2.4 for the largest operations).

Fig. 16: Mean priority score — technical support subcategories



priorities is an important step toward improving producer profitability.

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

1. They identify priorities among the many aspects of cow-calf production.
2. They 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. They evaluate gaps between producer and specialist responses, thereby identifying opportunities to more strategically align specialist resources with industry needs.

Note: Appropriate application of this information will vary somewhat from operation to operation. However, the author says the overall findings should be beneficial to all who use them.

