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Attitudes of Small Beef Producers

Toward Selected Production and Marketing Practices

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Introduction

Cattle production has historically been an important segment of the agricultural sector in the Southeast. The beef cattle industry in the Southeast is characterized by a predominance of small producers. The average size of beef cattle operations in Mississippi, for example, is about 33 cows. The cattle sector, as reflected by inventory numbers in the Southeast, has been relatively stable over the last 15 years. However, that could change dramatically in the future. Mississippi cattle producers, especially in south Mississippi, have expressed concern over what appears to be an increasing trend in shifting pasture resources, currently used to support cattle production, to timber production.

Objective

Effective outreach programs for educating beef cattle producers about alternative production and marketing strategies require a fundamental understanding of current practices and producer attitudes toward adoption of different practices. No comprehensive survey to gather such information has been conducted in Mississippi in recent years. The goal of the research reported in this paper was to determine the understanding of, attitudes toward, and willingness to employ alternative production and marketing practices by small beef cattle producers in Mississippi. For this paper, a small operation is defined as one with fewer than 100 head of beef cattle. The information provided by the survey will be useful in developing specific research programs to determine physical and economic performance of alternative cattle production and marketing strategies.

The results provide for development of strategic interdisciplinary extension programs designed to educate Mississippi cattle producers about selected production and marketing strategies and associated management issues. For example, the Integrated Resource Management (IRM) program will directly benefit from the data collected. Participating IRM producers could assist in evaluation and implementation of alternative production and marketing strategies.

Overview of the Mississippi Cattle Sector

This section provides a brief overview of Mississippi's cattle sector. While the descriptive statistics reported focus on Mississippi, they are fairly reflective of the southeastern beef cattle sector, in general (with the exception of Florida, perhaps).

There were about 22,000 operations with beef cows in Mississippi in 2000 (MASS). Of these, 82% had fewer than 50 cows. However, these small operations controlled only 39% of Mississippi's beef cow herd. Only 5% of Mississippi's beef cow operations have 100 or more beef cows, but these operations own 34% of the beef cows.

According to the most recent Census of Agriculture, almost 94% of the operations with beef cows had fewer than 100 cows. These operations accounted for about 56% of the total value of production of cattle and calves. In contrast, operations with more than 100 cows (only 6.3% of the total number of operations) accounted for more than 43% of the total value of production of cattle and calves in 1997.

The total market value of cattle and calves in Mississippi, as of January 1, 2001, was $631.3 million (MASS). Cash receipts from farm marketings of cattle and calves totaled $212.4 million in 1999, about 10% of the total cash receipts from marketing livestock and livestock products and just under 7% of the total cash receipts all agricultural commodities in Mississippi.

Research Methods and Procedures

The objective of this paper — to determine producer attitudes toward and understanding of beef cattle production and marketing methods — was accomplished through a survey of Mississippi cattle producers. The questionnaire was designed to ascertain current production and marketing practices, as well as producer understanding of and willingness to adopt alternative production and marketing methods. Producers were also queried regarding herd size and producer demographics, such as age and tenure. While producers with beef cattle operations of all sizes were surveyed, only the results of the responses of smaller operations are reported in this paper. Little et al. provides the general summary of the responses of all cattle producers surveyed.

The survey conducted was a probability survey, properly weighted and adjusted for nonresponse. Altogether, 1,355 Mississippi cattle producers were surveyed. The sample was drawn from the National Agricultural Statistics Service's List Sampling Frame. This is a list of every known cattle producer in Mississippi. It is the most complete list in existence and is used by USDA for producing official statistics.

Of the Mississippi beef cattle producers surveyed, 676 completed questionnaires. This report focuses on small cattle operations, of which 475 were surveyed and 234 completed questionnaires. The Mississippi Agricultural Statistics Service (MASS), USDA, administered the survey. Use of MASS ensured proper sampling and confidentiality. Comparisons of selected survey results to data routinely collected by MASS suggest that the survey results are reliable. After expanding the data from the sample to the population, items, such as total number of cows and timing of calving, checked against other sources matched up quite well. Further details of the sample and the survey response are reported in Little et al. The survey instrument is provided in the Appendix.

Results

The survey response summaries are presented in this section. First, general descriptive data are presented concerning current production and marketing practices. Then, attitudes about alternative beef cattle production and marketing methods are discussed. Finally, the demographic data are presented.

Current Production Practices

The use of current production practices by small beef cattle producers (those with fewer than 100 head) is discussed in this section. Practices discussed include use of records, breed selection, and use of health management practices.

More respondents indicated that they used financial records to help with decision making than animal records. About 60% indicated they used financial records when making decisions, while only 46.5% indicated they kept and used animal records (Figure 1).

The Breeding Herd and Annual Production

The makeup of the average breeding herd for small beef cattle operations, according to the survey results, is presented in Figure 2. On average, small beef operations had 29 cows, 5.3 replacement heifers, and about 2 bulls per herd.

The producers surveyed were asked to indicate, as best they could, the breed or breeds reflected in their cow herd. These results are presented in Table 1. Angus is the predominant breed in small Mississippi beef cow herds, according to the survey results, with almost 40% of the

Table 1. Breed makeup of the breeding herd of small beef operations in Mississippi, 1999.

Breed	Cows	Bulls	Breed	Cows	Bulls
	%	%		%	%
Angus	38.4	17.2	Beefmaster	11.3	7.9
Hereford	17.9	7.6	Brahman	12.4	2.7
Limousin	14.9	9.4	Gelbvieh	1.8	2.2
Charolais	16.1	20.2	Brangus	17.7	20.5
Santa Gertrudis	7.2	1.1	Unknown cross	34.3	N/A
Simmental	10.7	6.9	Other	5.9	4.2

herds in the state composed of Angus or Angus cross cows. Hereford, Brangus, and Charolais were the next most popular beef breeds with 17.9%, 17.7%, and 16.1% of the producers indicating those breeds, respectively, as a part of the breed makeup of their cow herds. Charolais was the predominate European breed reflected in Mississippi's beef herd, followed by Limousin, Simmental, and Gelbvieh.

About 12% of the small cow herds in Mississippi, according to the survey responses, have Brahman and Brahman-cross cows in their breeding herds. At 36.7%, unknown crossbreeds were indicated as a key component of the breed makeup of small cow herds.

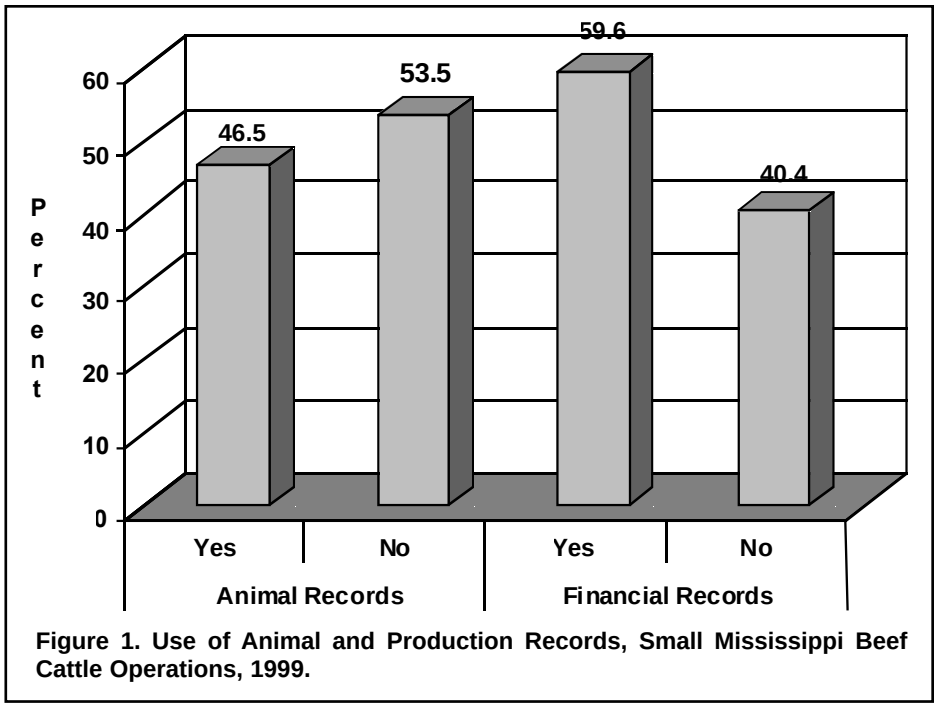

Figure 1. Use of Animal and Production Records, Small Mississippi Beef Cattle Operations, 1999.

About 60% of the calves born on the operations of the small producers surveyed were born in the spring (Figure 3). About 16% and 15%, respectively, of calves were born in the fall and winter months. The fewest calves (just under 10%) were born in the summer months, according to the survey responses.

About 84% of the small operations surveyed indicated that heifers they raised on farm were their source of replacements (Figure 4). The sale barn or conventional auction market was the second most frequently indicated source of replacement heifers, followed by purebred producers. Commercial producers and special sales were indicated as less used sources for replacement heifers for small operations. Where producers were asked to identify the sources of their replacement heifers, multiple answers were possible; hence, the percentages total more than 100.

Respondents were asked about their annual production of stocker or yearlings and cattle on feed. On average, the producers surveyed produced 16 stockers and only 0.7 head of cattle on feed annually. These operations likely used stockers to utilize excess forage capacity, but very few retained ownership beyond the stocker phase.

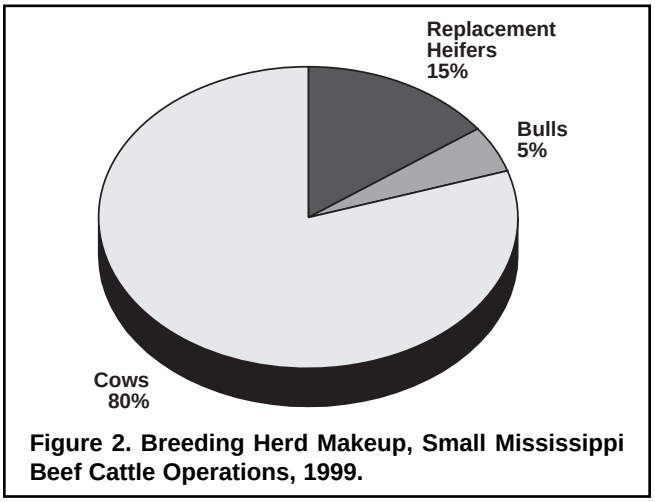

Figure 2. Breeding Herd Makeup, Small Mississippi Beef Cattle Operations, 1999.

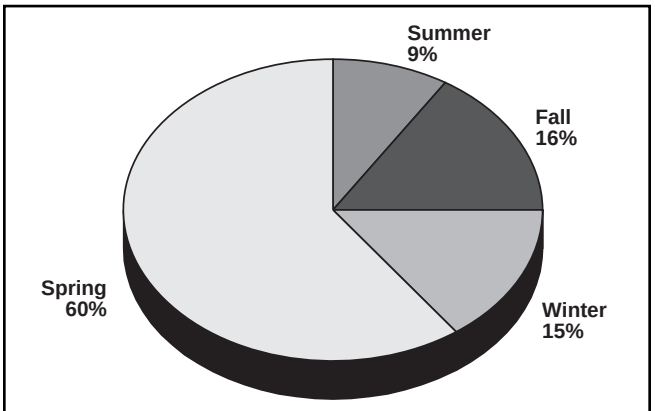

Figure 3. Timing of Calving, by Season, Small Mississippi Beef Cattle Operations, 1999.

Bull Breeds and Bull Selection

The producers were also asked to indicate the number of bulls in their herd by breed. The makeup of the

bull herd used by small Mississippi cattle producers surveyed is presented in Table 1. Based on the survey results, the predominate breeds used for herd sires are Brangus, Charolais, and Angus. These breeds comprise about 20.5%, 20.2%, and 17.2% of the bulls used by the survey respondents, respectively. On average, Limousin, Beefmaster, Hereford, and Simmental each comprised from about 7% to 9% of the bull herd. Brahman, Gelbvieh, and Santa Gertrudis, which comprised 2.7%, 2.2%, and 1.1% of the bull herd of the survey respondents, respectively, were among the least used breeds; another 4.2% of the bull herd was designated as "other" by the survey respondents.

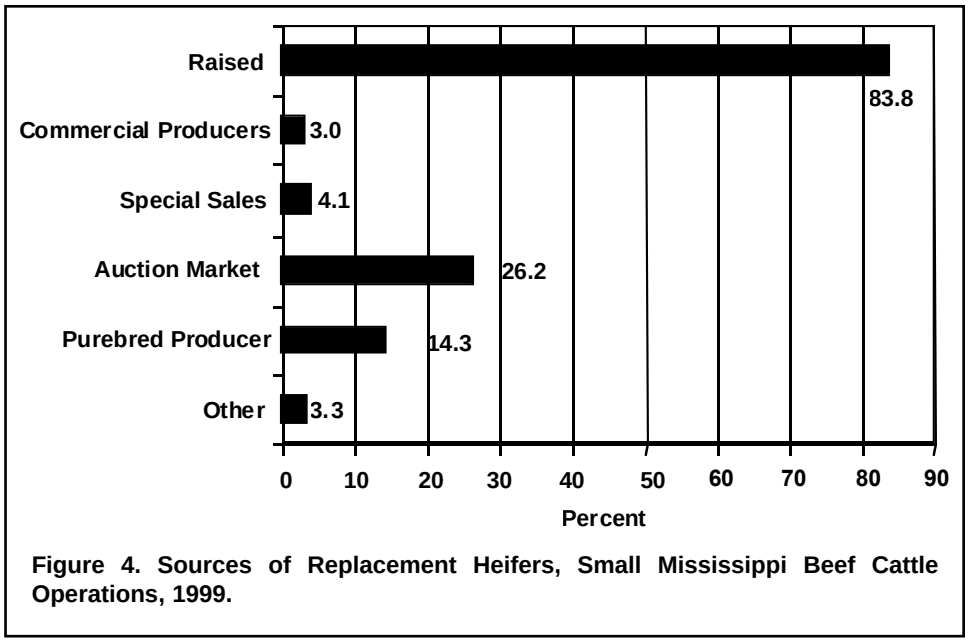

Figure 4. Sources of Replacement Heifers, Small Mississippi Beef Cattle Operations, 1999.

Respondents were asked to identify key factors they considered when selecting their bulls. More than one selection was allowed. The bull's appearance was indicated as important by about two-thirds of the small beef producers in Mississippi (Figure 5). The bull's breed was an important factor for 62% of the respondents. The next factor most frequently identified was price, with almost 41% of the producers responding indicating they considered bull price when selecting herd sizes.

The seller's reputation and the bull's disposition were indicated as somewhat equally important factors (about 23%) in the bull purchase decision. Finally, information about the bull's expected genetic performance, as indicated by Expected Progeny Differences (EPDs), was a factor considered by about 17% of the respondents.

Health Management Practices

The producers were asked about the herd health management practices they typically used. Specifically, they were asked if they employed those practices according to recommendations (or regularly), if they occasionally employed those practices, or if they never employed the listed practices on their operations. Producer responses to the queries regarding their herd health management practices are summarized in this section (Table 2).

According to the survey results, almost all of Mississippi's small cattle producers at least occasionally vaccinated their cattle. A slight majority (53.5%) vaccinated beef cattle according to recommendations. Another 37.7% occasionally vaccinated, while the remaining 8.9% indicated they never vaccinated their cattle.

More than 96% of the beef cattle producers surveyed indicated that they at least occasionally dewormed their cattle. About 62% dewormed their cattle according to recommendations, while another 34.4% occasionally dewormed. Only about 3.4% of the small producers surveyed indicated that they never dewormed their cattle.

The tendency among the producers to employ measures to control grubs and lice on their beef cattle practically mirrors their vaccination practices. Almost 90% of the small producers surveyed indicated that they at least occasionally took steps to control grubs and lice. Just about half of the small producers indicated that steps they took to control grubs and lice are according to recommendations. About 11% of the producers responding indicated that they never attempted to control grubs and lice in their beef herds.

Producer use of measures to control fly problems was similar to the use of vaccinations and grub and lice control practices. Almost 90% of the cattle producers responding indicated that they at least occasionally took measures to control flies. Almost half of the producers controlled flies according to recommendations. About 11% of all the producers responding indicated that they never attempted to control flies.

The producers were asked if they castrated and dehorned their calves. About 32% of the respondents indicated that they always castrated, 35% indicated that they

occasionally castrated, and just over 32% indicated that they never castrated. Only about 23% indicated that they at least occasionally dehorned; only 19% always dehorned their calves. More than half (58%) of the producers surveyed indicated that they never dehorned their calves.

The producers were asked about their use of growth promotants, or implants, in their calves. Only about 13% of the respondents indicated that they used implants according to the recommendations, while another 8.6% used them occasionally. A clear majority of the small producers surveyed, about 78%, never used growth promotants.

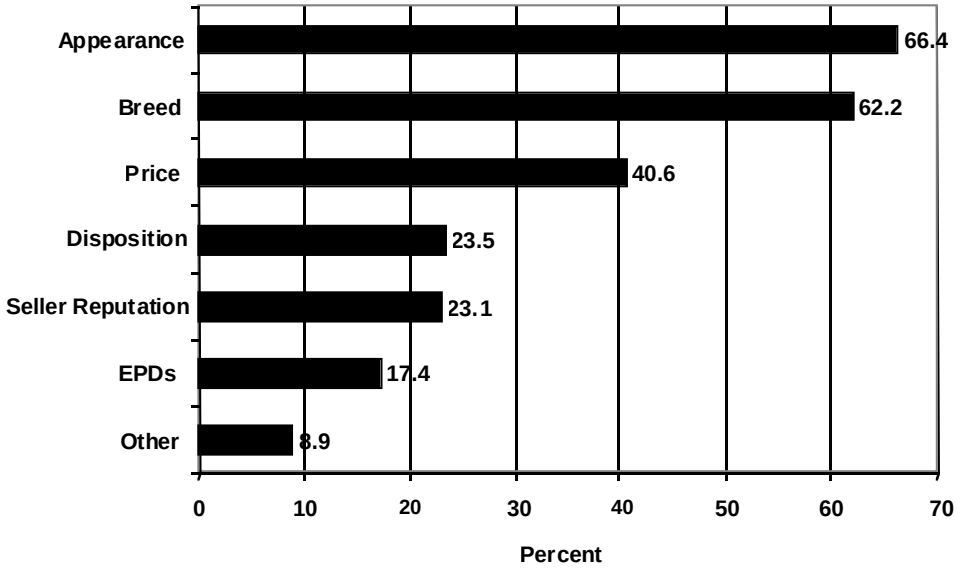

Figure 5. Factors Considered When Selecting Herd Sires, Small Mississippi Beef Cattle Operations, 1999.

Almost 90% of the producers surveyed indicated that they at least occasionally consulted veterinarians as a health management practice. Most of the respondents (almost 61%) only consulted veterinarians occasionally, while about 28% said they regularly sought veterinarian input. About 11% indicated that they never consulted a veterinarian.

Not quite 33% of the small producers surveyed indicated that they pregnancy checked their cows at least occasionally. Most (68.8%) never pregnancy checked their cows.

The reproductive function of bulls is dependent on sexual desire, mating ability, and the formation and deposition of viable and mobile semen. Poor fertility or infertility is an often-overlooked cause of low productivity. Breeding soundness exams (BSE) are recommended to help minimize losses due to poor fertility. BSEs should include a physical examination, examination of the reproductive tract, a semen evaluation, and an evaluation of mating desire. Most (68.4%) of the small cattle producers surveyed indicated that they never had breeding soundness exams performed on their bulls. About 16% regularly had BSEs performed on their bulls, while another 15% occasionally had BSEs.

Table 2. Current use of selected health management practices by small beef operations in Mississippi, 1999.

Practice	According to recommendation	Occasionally	Never
	%	%	%
Vaccination	53.5	37.7	8.9
Deworming	62.2	34.4	3.4
Grub and lice control	50.2	38.8	11.1
Fly control	49.7	39.1	11.2
Castration	32.3	35.0	32.7
Dehorning	19.0	23.1	58.0
Implanting	13.2	8.6	78.2
Pregnancy check	16.5	14.7	68.8
Breeding soundness exams	16.4	15.2	68.4
Consult veterinarian	28.2	60.6	11.2

Current Marketing Practices

The survey responses to questions regarding current marketing practices are presented in these sections. Markets used to sell cattle are discussed first, followed by markets used to buy cattle.

Markets Used to Sell Cattle

According to the survey results, almost 75% of small Mississippi cattle producers sold their cattle regularly at conventional livestock auction markets (Table 3). Another 18% occasionally marketed cattle at sale barns. These findings are consistent with other studies (Guidry; Popp et al.; Popp and Parsch 1998; APHIS-VS).

Only about 10% of the small cattle producers surveyed indicated that they regularly sold their cattle directly to a stocker or backgrounding operation. Another 12.5% indicated that they occasionally did. The majority (77%) said they never sold their cattle directly to a stocker or backgrounding operation.

The vast majority, about 95%, of the operations surveyed indicated that they never sold their cattle directly to a feedlot. Only 0.5% indicated that they regularly sold cattle directly to a feedlot, while another 5% said they occasionally did. Similarly, very few — less than 4% of the cattle producers surveyed — indicated that they sold cattle through video auctions. Only about 1% said they sold through video auctions regularly, and another 2.6% said they did so occasionally. Most video auctions have a minimum lot size of about 50 head. Ideally, these lots include calves of the same sex, similar genetics, and a weight range of 150 pounds or less. Small producers must generally pool their cattle to meet these specifications.

Even fewer producers (only 1%, overall) sold their cattle using forward contracts. About 99% never used forward contracts when they sold their cattle. The cattle producers surveyed were also asked if they sold cattle through special sales, such as the Southeast Pride Sales. Most (92%) said they did not. Of those who did sell through special sales, only 1% did so regularly and the remainder only occasionally. The use of special sales as a marketing tool is likely a function of the operation's management practices. Several of the health management practices discussed previously, including vaccination, deworming, castration, and dehorning, are requisite to participation in many special sales. It appears that most producers believed that they did not receive price gains for performing these additional practices when they sold calves through traditional auction markets.

Sources of Purchased Cattle

The producers surveyed were also asked a set of questions pertaining to the sources of the cattle they purchased. Most of the small producers surveyed (about 55%) indicated that they, at least occasionally, purchased cattle from conventional auction markets (Table 4). About 24% did so regularly and another 32%, occasionally. Just under half indicated that they

Table 3. Use of selected market methods to sell beef cattle by small beef operations in Mississippi, 1999.

Method	Regularly use	Occasionally use	Never use
	%	%	%
Sell cattle on a regular sale day at an auction market	74.0	18.3	7.7
Sell directly to a stocker or backgrounding operation	10.3	12.5	77.2
Sell directly to a feedlot operation	0.5	4.9	94.6
Sell through a video auction	0.5	2.2	97.3
Sell using forward contracts	0.5	0.5	99.0
Sell through special sales	1.0	6.8	92.2

Table 4. Use of selected sources for purchased cattle by small beef operations in Mississippi, 1999.

Source	Regularly use	Occasionally use	Never use
	%	%	%
Buy cattle at a sale barn or auction market	24.4	31.4	44.2
Buy calves directly from a producer	34.3	29.9	35.8
Buy through a video auction	0.2	1.8	97.9
Buy cattle on contract	0.0	3.5	96.5
Buy cattle at special sales	4.6	6.9	88.5

never purchased cattle from sale barns. A more common source of cattle for small beef cattle operations was other producers. Only 36% indicated that they never purchased cattle directly from other producers. In contrast, almost two-thirds indicated that they, at least occasionally, purchased cattle directly from other producers.

Very few (only about 2%) of the producers surveyed indicated that they purchased cattle through video auctions. Almost all of those did so only occasionally. Similar tendencies were exhibited when the producers were asked if they bought cattle on contract. None said they did so regularly, and only 3.5% did so occasionally. Finally, the producers were asked if they purchased cattle though special sales, such as the Southeast Pride Sales. Just over 11% indicated that they did, at least occasionally. Most (88.5%), however, said they never bought cattle at special sales.

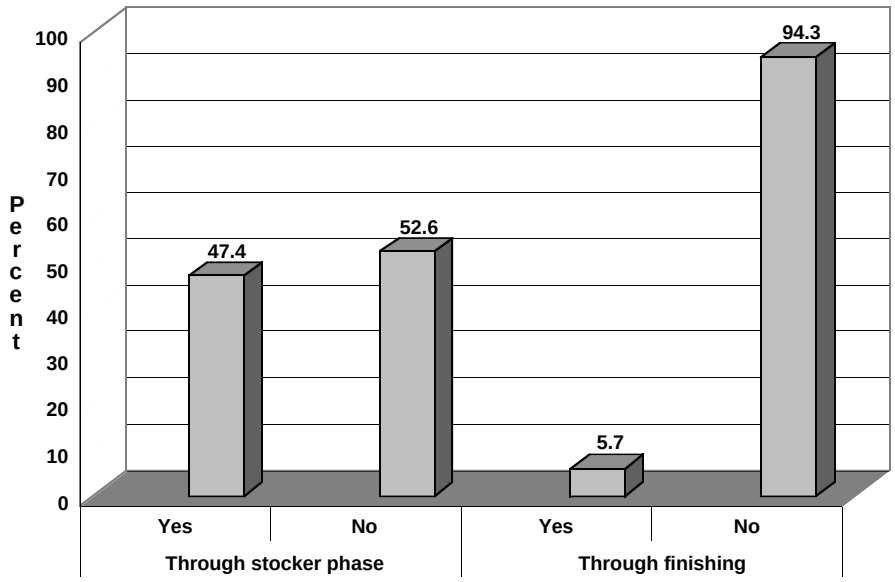

Figure 6. Retained Ownership of Calves through the Stocker and Finishing Phases, Small Mississippi Beef Cattle Operations, 1999.

About 47% of the small cattle producers surveyed retained ownership through the stocker phase (Figure 6), while only about 6% of small beef cattle producers retained ownership through finishing. Most commercial feedlots require 125-150 calves per pen. Unless smaller producers cooperatively place cattle in a feedlot, only larger producers can utilize this value-added practice. Also, retaining ownership through finishing involves much more risk and requires more capital, which effectively limits participation by many smaller producers.

Factors That Influence Timing of Cattle Sales

The small beef producers surveyed were asked to indicate their views on the importance of a variety of factors that influenced their cattle marketing decisions (Table 5). Of the factors identified, their cattle reaching a target weight and selling when prices reached a set level were most important. About 80% and 53% of the producers surveyed, respectively, said these factors were either important or very important as motivators to sell.

Forage conditions on the farm and anticipation of falling cattle prices were the next most important factors influencing the decision to sell cattle. Almost 43% of the small producers surveyed said that running out of grass was an important or very important factor that motivated them to sell, while 40% indicated that the possibility of falling prices was an important or very important factor that motivated them to sell.

Table 5. Importance of key factors that influence cattle marketing decisions of small beef cattle operations in Mississippi, 1999.

Factor	Not important	Somewhat important	Important	Very important
	%	%	%	%
Cattle reach a target weight	6.6	13.7	33.5	46.2
Prices reach a set level	25.2	22.1	29.4	23.2
I run out of grass	33.6	23.8	25.6	17.0
Prices may fall	37.9	21.8	23.9	16.3
Sell at a specific point in time	34.1	30.7	24.1	11.1
I need the money	42.9	22.5	18.8	15.8

Selling at a specific point in time was important or very important to 35% of the producers who responded to the survey. Another 30% indicated that it was somewhat important. The least important factor motivating sale of cattle, of those listed, was selling when the producer needed money; about 43% indicated that needing money was not an important determinant behind their decision to sell cattle. Only 34% indicated that selling when they needed money was important or very important. Another 23.5% said it was somewhat important.

Pooling Cattle with Other Producers

Selling cattle in larger groups allows producers to receive higher prices, compared with selling in individual or small lots. However, almost all (96.8%) of the small beef cattle producers surveyed indicated that they did not pool cattle (Figure 7).

The small beef producers surveyed were asked to respond to a series of questions about pooling cattle, even if they did not pool cattle with other producers (Table 6). About 73% of the producers indicated they had never considered pooling cattle.

The producers surveyed seemed to recognize the primary advantages of pooling cattle: potentially higher prices and lower transaction costs. Just over 76% of the producers responding said that they think larger and more uniform lots of cattle sell at a higher price. Similarly, about 76% of the producers also indicated that they agreed that pooling cattle saved on transportation costs.

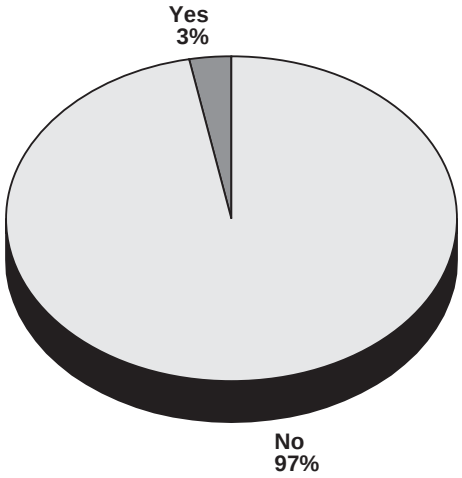

Figure 7. Marketing by Pooling Cattle with Those of Other Producers, Small Mississippi Beef Cattle Operations, 1999.

The major factors influencing producer decisions to avoid pooling cattle included the loss of flexibility in marketing (69.4% agreed) and a sense of being forced to accept the average pen price for their cattle (66.9% agreed). At 54% and 56%, respectively, the respondents indicated they equally agreed with the statements, "Buyers prefer single-source cattle, regardless of lot size," and "Pooling is too risky because of potential disease problems." The decision not to pool cattle was influenced less by a lack of trust in the grading and sorting (only about 41% agreed) than the other factors identified.

Table 6. Perspectives of small beef cattle producers in Mississippi on commingling or pooling cattle with other producers to market , 1999.

Perspective	Agree	Disagree
	%	%
Larger, more uniform lots of cattle sell at a higher price.	76.1	23.9
Pooling cattle saves on transportation costs.	76.2	23.8
Video auctions make pooling cattle easier.	58.5	41.5
Buyers prefer single-source cattle, regardless of lot size.	53.7	46.3
I don't like to have to sell my cattle at the average pen price.	66.9	33.1
I have not considered pooling cattle.	73.2	26.8
I don't like pooling cattle because I can't sell when I want to.	69.4	30.6
I don't pool cattle because I don't trust the grading and sorting.	40.9	59.1

Alternative Production and Marketing Practices

The cattle producers surveyed were asked a number of questions eliciting their opinions about the prospect of changing production and marketing practices with the express goal of increasing returns to their cattle enterprises. This section presents a summary of the producer responses to these questions.

About 75% of the producers responding indicated that they would be willing to change the length of their calving seasons and almost as many (71%) said they would be willing to change the timing of their calving seasons (Table 7).

Contracting with others to precondition or custom graze calves at their location provides cattle producers with the opportunity to retain ownership without having to increase the size of their operation. When asked about their willingness to pay others to precondition or custom graze their calves on contract, most (91.5%) of the producers expressed opposition.

Another option producers have is to use their resources to precondition or custom graze calves on contract for others. This enables producers with excess capacity to more fully utilize their resource base, including management skills, without assuming the production and market risk inherent with ownership of stocker cattle. About 16.6% of the producers indicated that they would be willing to precondition or custom graze for others; this percentage was slightly higher, on average, than the percentage of producers willing to contract with others to perform that service.

The strong opposition to either paying to have one's calves preconditioned or being paid to precondition calves for others expressed in the survey responses could help explain the virtual absence of this practice in Mississippi. Producer reluctance implies, perhaps, a lack of trust. A number of questions must be answered before entering a custom stocker or backgrounding agreement. Some of these include, "Who will weigh the calves on and off?," "Where will they be weighed?," "How will the producer be paid?," "Who is at fault if the calves do not perform well?," and "How will death loss be handled?"

The producers surveyed were also asked to indicate their willingness to adopt or modify selected production and marketing practices in order to participate in a livestock-marketing cooperative, with the express intent of boosting net returns. The production and marketing practices selected were identified as those central to the success of a livestock-marketing cooperative that produces large lots of consistent and uniform cattle and facilitates producer participation in other segments of the live beef production chain. Across the board, the willingness to adopt the identified production practices was much higher than the willingness to adopt marketing practices (Table 7).

On average, about 58% of the small producers surveyed indicated that they would be willing to change the breed of their bulls in an effort to boost net returns. More than 61% of the producers surveyed said they

Table 7. Willingness of small beef cattle producers in Mississippi to adopt selected alternative production and marketing practices, 1999.

Practice	Yes	No
	%	*%*
Would you be willing to …		
Restrict the length of your calving season?	74.0	26.0
Change the timing of your calving season?	71.1	28.9
Pay someone to precondition or graze your calves on contract?	8.5	91.5
Precondition or graze calves on contract for others?	16.6	83.4
To participate in a livestock marketing cooperative, would you be willing to …		
Individually identify all cows and calves?	57.5	42.5
Change breed of bulls?	57.8	42.2
Follow a specific preweaning health program?	61.9	38.1
Vaccinate and precondition calves for 30-60 days past weaning?	63.1	36.9
Commingle or pool cattle with those of other producers?	36.1	63.9
Use cash forward contracts?	30.4	69.6
Retain ownership through stocker or feedlot?	33.6	66.4
Accept prices negotiated by the cooperative?	41.5	58.5
Invest in new market development through a livestock marketing cooperative?	34.8	65.2

would be willing to implement both a preweaning health management program for their calves and a 30- to 60-day postweaning preconditioning program.

Animal identification has been discussed as a beef production quality control measure. About as many producers as were willing to change bulls (58%) indicated they would be willing to individually identify their cows and calves.

The willingness to adopt alternative marketing practices, despite the prospect of generating more profit, was markedly less than the willingness to change production practices. Only about 34% indicated they would be willing to retain ownership, while 36% indicated they would be willing to pool cattle with other producers to market. Even fewer, about 30%, indicated that they would be willing to cash forward contract as a marketing strategy.

The producers were also queried about their willingness to accept prices for their cattle negotiated by the livestock marketing cooperative. About 41% indicated that they would be willing to let a livestock-marketing cooperative negotiate pricing. Finally, the producers were asked if they would be willing to invest in new market development through a livestock-marketing cooperative. Only about 35% of the producers indicated they would be willing to invest. Of those who were willing to invest, about 52% indicated they would be willing to invest up to $5 per head sold. About 33% said they would invest up to $10 per head sold, while the remaining 14% said they would invest up to $25 per head sold.

General Demographic Information

The producers were asked a series of questions to gather general demographic information. The data are presented in this section.

The majority of the small producers surveyed were more than 50 years old; about 43% were more than 60 (Figure 8). Another 26.7% were between 41 and 50 years of age. Less than 7% of the producers responding were less than 40. The predominance of retirement age cattle producers suggests an approaching period of turnover in Mississippi cattle industry. The producers surveyed had been raising beef cattle for an average of almost 28 years.

The beef cattle enterprise was an important component of the overall farming operation for the small cattle producers surveyed. Small cattle producers indicated that almost 72% of their gross farm sales were from cattle sales.

The beef cattle producers surveyed were asked to indicate the percentage of household income from off-farm sources. The respondents indicated that almost 73% of their household income was from off-farm sources. The producers were also asked if they or their spouses were employed off the farm to provide an idea of the relative importance of beef cattle production as a

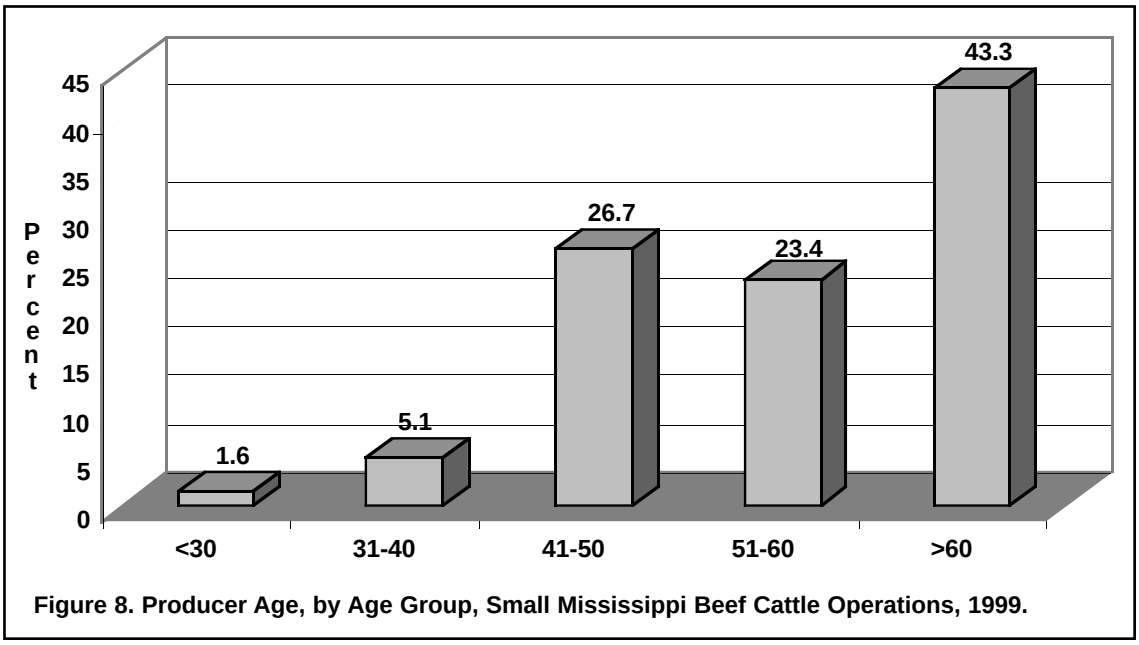

Figure 8. Producer Age, by Age Group, Small Mississippi Beef Cattle Operations, 1999.

source of family income. Almost 53% of the producers responding indicated that they had off-farm employment (Figure 9). Of those producers who indicated that they had off-farm jobs, about 84% said they were employed full-time. The remainder worked part-time off the farm.

Of the producers responding to the question about spouses' off-farm employment, 48% indicated that their spouses were employed off the farm (Figure 10). Of those spouses with off-farm employment, about 90% had full-time jobs and the remainder had part-time jobs.

Almost 70% of the producers surveyed indicated they had never attended any beef cattle short courses or seminars. Only 32% of the producers surveyed indicated that they were members of the Mississippi Cattleman's Association.

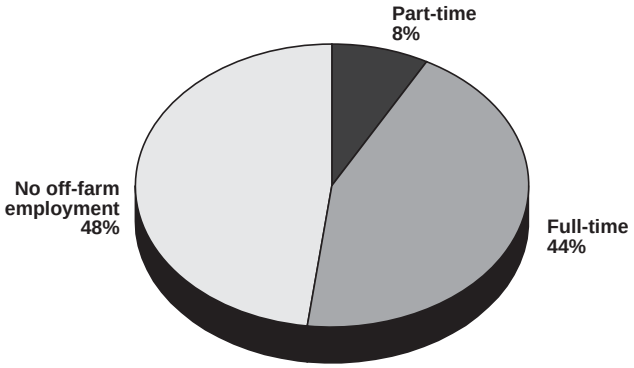

Figure 9. Off-farm Employment, Small Mississippi Beef Cattle Producers, 1999.

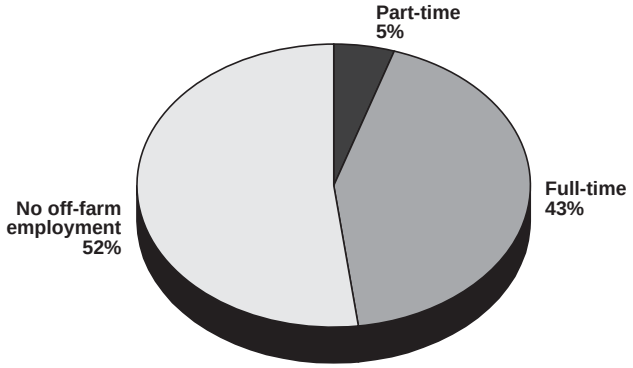

Figure 10. Off-farm Employment, Spouses of Small Mississippi Beef Cattle Producers, 1999.

SUMMARY AND CONCLUSIONS

Effective outreach programs for educating beef cattle producers about alternative production and marketing strategies require a fundamental understanding of current practices and producer attitudes towards adoption of different practices. No comprehensive survey to gather such information has been conducted in Mississippi in recent years. The goal of the research reported in this paper was to report characteristics of small Mississippi cattle producers, including their understanding of, and attitudes toward selected production and marketing practices. Data on current production and marketing practices were gathered. The information provided by the survey will be useful in developing specific research programs determining physical and economic performance of alternative cattle production and marketing strategies. The results provide for development of strategic interdisciplinary extension programs designed to educate Mississippi cattle producers about selected production and marketing strategies and associated management issues.

Small beef cattle producers in Mississippi are generally older; more than 40% are older than 60. They have been raising cattle for almost 30 years. The combined effect of producer age and the relative reliance of the households on income from off-farm sources helps explain the fact that current production and marketing practices are not management intensive. It also helps explain why the small producers surveyed were, in general, reluctant to adopt more intensive management practices, even with the expressed intent of increasing net returns to the beef cattle enterprise.

The small producers surveyed were more willing to change production practices, such as changing the length and/or timing of their calving seasons or breed of bulls, than they were marketing practices. It is likely that they better understood how such changes could be incorporated, and thus could better understand the potential benefits. Some of the alternative marketing practices discussed would require participating producers to surrender some autonomy, something many of the small producers surveyed were reluctant to consider.

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APPENDIX

Mississippi Beef Cattle Production and Marketing Survey

Your voluntary and confidential participation is very important to the success of this research effort. Please answer questions pertinent to your operation as completely as possible. Thanks!

PART I. Current Production Practices

1. What is your current herd inventory or annual production for the following:

Inventory: 101 Cows___ 102 Replacement Heifers___ 103 Herd Bulls___
Head produced annually: 104 Stockers/Yearlings___ 105 Cattle on Feed___

2. What records do you use when you make decisions about your cattle operation?

106 Animal records? 1 Yes 2 No
107 Financial records? 1 Yes 2 No

3. What is the source of your replacement heifers? (Check all that apply.)

108 Raised 111 Sale barn or auction market
109 Commercial producer 112 Purebred producer
110 Special sales 113 Other_____(Please specify.)

4. Please indicate, for a typical year, the percent of your calves born in the following seasons.

114 Spring___% 116 Summer___% 117 Fall___% 118 Winter___%

5. Please identify the key breed or breeds reflected in your cow herd. (Check all that apply.)

119 Angus___ 120 Hereford___ 121 Limousin___
122 Charolais___ 123 Santa Gertrudis___ 124 Simmental___
125 Beefmaster___ 126 Brahman___ 127 Gelbvieh___
128 Brangus___ 129 Unknown crossbred___ 130 Other_____(Please specify.)

6. Please indicate the number of bulls by breed. (Check all that apply.)

131 Angus___ 132 Hereford___ 133 Limousin___
134 Charolais___ 135 Santa Gertrudis___ 136 Brangus___
137 Beefmaster___ 139 Brahman___ 140 Gelbvieh___
141 Simmental___ 142 Other_____(Please specify.)

7. What factors do you consider when you select your herd sires? (Check all that apply.)

143 Price 144 Breed 145 EPDs 146 Seller reputation
147 Disposition 148 Bull's appearance 149 Other_____(Please specify.)

8. What health management practices do you typically use? (Check all that apply.)

	According to Recommendations	Occasionally	Never
150 Vaccinate	1☐	2☐	3☐
151 Deworm	1☐	2☐	3☐
152 Grub and lice control	1☐	2☐	3☐
153 Fly control	1☐	2☐	3☐
154 Implant	1☐	2☐	3☐
155 Dehorn	1☐	2☐	3☐
156 Castrate	1☐	2☐	3☐
157 Consult veterinarian	1☐	2☐	3☐
158 Pregnancy check	1☐	2☐	3☐
159 Breeding soundness exam (bulls)	1☐	2☐	3☐

PART II. Current Cow-Calf Marketing Practices

1. Which marketing methods do you use to sell cattle?

	Regularly	Occasionally	Never
160 Sell cattle on a regular sale day at an auction market	1☐	2☐	3☐
161 Sell directly to a stocker or backgrounder	1☐	2☐	3☐
162 Sell directly to a feedlot	1☐	2☐	3☐
163 Sell through a video auction	1☐	2☐	3☐
164 Sell using forward cash contracts	1☐	2☐	3☐
165 Sell cattle through special sales (i.e., Southeast Pride, replacement heifer sales, etc.)	1☐	2☐	3☐

2. Which marketing methods do you use to purchase cattle?

	Regularly	Occasionally	Never
166 Buy cattle at a sale barn or auction market	1☐	2☐	3☐
167 Buy calves directly from a producer	1☐	2☐	3☐
168 Buy through a video auction	1☐	2☐	3☐
169 Buy cattle on contract	1☐	2☐	3☐
170 Buy cattle at special sales (i.e., Southeast Pride, replacement heifer sales, etc.)	1☐	2☐	3☐

3. Do you currently retain ownership of your calves...

171 Through the stocker phase?	1 Yes	2 No
172 Through the feedlot?	1 Yes	2 No

4. Please rate, by checking the appropriate box for each, the following factors that motivate you to sell:

I sell...	Important	Not Important	Somewhat Important	Very Important
173 When I need the money.	1☐	2☐	3☐	4☐
174 At a specific point in time	1☐	2☐	3☐	4☐
175 When I run out of grass.	1☐	2☐	3☐	4☐
176 When my cattle reach a target weight.	1☐	2☐	3☐	4☐
177 When the price reaches a set level.	1☐	2☐	3☐	4☐
178 If I think prices are going to fall.	1☐	2☐	3☐	4☐

5. Do you ever sell cattle that are commingled ("pooled") with cattle from other producers and sold as a group?

179 1 Yes 2 No

Even if you don't "pool" or commingle cattle, please indicate your opinion on the following statements.

	Agree	Disagree
180 Larger, more uniform lots of cattle sell at a higher price.	1☐	2☐
181 Pooling saves on transportation cost	1☐	2☐
182 Video auction markets make pooling cattle easier.	1☐	2☐
183 Buyers prefer single-source cattle, regardless of lot size.	1☐	2☐
184 I don't like to sell my cattle at the average pen price.	1☐	2☐
185 I have not considered pooling cattle.	1☐	2☐
186 I don't like it because I can't sell when I want to.	1☐	2☐
187 I don't pool because I don't trust the grading and sorting	1☐	2☐
188 It's too risky because of potential disease problems	1☐	2☐
189 Other _____		

6. Do you currently market cattle through an existing livestock marketing cooperative?

190 1 Yes 2 No 3 Not Sure

PART III. Attitudes about Alternative Production and Marketing Practices

1. For cow-calf producers, would you be willing to...

A. Restrict the length of your calving season (90 to 120 days), if you thought you could increase the profits of your cattle operation?

191 1 Yes 2 No

B. Change the time of year when you calve, if you thought you could increase the profits of your cattle operation?

192 1 Yes 2 No

2. Would you be willing to pay someone to precondition or graze your calves on contract?

193 1 Yes 2 No

3. Would you be willing to precondition or graze calves on contract for others on your farm?

194 1 Yes 2 No

4. Would you be willing to adopt (if necessary) these practices to participate in a livestock marketing cooperative to possibly get price premiums for producing high quality, uniform cattle?

195 Individually identify all cows and calves	1 Yes	2 No
196 Change breed of bulls	1 Yes	2 No
197 Follow a specific pre-weaning health program	1 Yes	2 No
198 Vaccinate and pre-condition for 30 to 60 days past weaning	1 Yes	2 No
199 Commingle or pool calves with those of other producers	1 Yes	2 No
200 Use cash forward contracts	1 Yes	2 No
201 Retain ownership through stocker/feedlot	1 Yes	2 No
202 Accept prices negotiated by the cooperative (i.e., to provide premiums and discounts for quality)	1 Yes	2 No

5. Would you be willing to invest in new market development through a livestock marketing cooperative?

203 1 Yes 2 No

If yes, please indicate how much:

204 1 up to $5 per head sold
2 up to $10 per head sold
3 up to $25 per head sold

PART IV. General Information

1. Please indicate your current age:

205 1 20 or younger 2 21-30 3 31-40 4 41-50 5 51-60 6 61 or older

2. Are you and your spouse (if married) employed off the farm? If yes, please indicate if you work full-time or part-time off the farm.

		Yes	No		Full-time	Part-time
You	206	1☐	2☐	207	1☐	2☐
Spouse	208	1☐	2☐	217	1☐	2☐

3. About what percentage of your total household income is from off-farm sources?

209___%

4. How many years have you been raising beef cattle?

210___

5. In what county is your cattle operation located?

211_____County

6. Are you a member of the Mississippi Cattlemen's Association?

212 1 Yes 2 No

7. Cattle sales make up what percentage of your average gross farm sales?

213___%

8. Have you participated in beef cattle short courses or seminars?

214 1 Yes 2 No

Office Use **215** **1 Mail** **2 Telephone** **3 Personal Interview** **4 Refusal** **5 Inaccessible** **216** **Enumerator:** **Enumerator ID**

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