

**SURVEY OF BEEF AND FORAGE PRACTICES
USED BY BEEF CATTLEMEN IN SOUTH-CENTRAL FLORIDA
1998-2011**

Information in this document was gathered in a survey of beef producers conducted in 2003, 2007 and 2011. These surveys include data from Charlotte, Collier, DeSoto, Glades, Hardee, Hendry, Highlands, Hillsborough, Lee, Manatee, Martin, Okeechobee, Polk and Sarasota counties. A similar survey was conducted in these counties in 1986, 1990 and 1998. Comparisons among the surveys from the past fifteen years (1998, 2003, 2007 and 2011 surveys) are made throughout this document. The information contained in this document reflects observed changes and was gathered in a specific location and may not reflect the beef cattle situation for other areas of Florida.

ABOUT THE BEEF OPERATIONS

Kinds of Beef Operations – From 1998-2011 surveys have indicated that the South Florida beef cattle industry is primarily commercial. Approximately 85% of the beef operations in the surveyed counties were commercial. Five percent were purebred operations, and 10% were a combination of the two types. This trend has experienced no important changes over the period of these surveys.

Plans for the Next Five Years - From 1998-2011 surveys indicate that there has been little change in plans for the next five years of South Florida beef operators. Table 1. Indicates data collected in each survey. Figure 1. illustrates this data over the period of the surveys. This data indicates that approximately 90% of beef cattle operators have or have intended to maintain or increase their herd size.

Table 1.

Plan for next five years	1998	2003	2007	2011
Increase size of operation	30 ¹	34	37	40
Reduce size of operation	8	7	7	1
Maintain size of operation	56	59	55	57
Get out of beef business	6	2	1	2

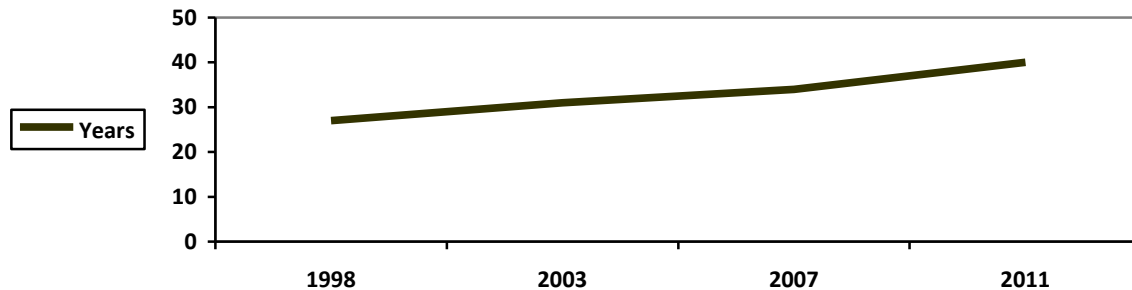
¹Data are in percent.

Business Structure of Farm/Ranch - In the 2011 survey more farms and ranches were family owned (43%) than any other form of business structure. Individual ownership (37%) was the next most popular form of business structure. These data were similar to that obtained in the three previous surveys.

Employment Status of Owner - In the 2011 survey 75% of owners had jobs other than the beef business. These data were somewhat higher than data collected in the three previous surveys. In these surveys, an average of 54% of owners had jobs other than the beef business.

Years Owners Have Been in the Cattle Business - In the 2011 survey showed that the average years of ownership was 40 years. This has gradually increased over the period of the compared surveys. Figure 1. illustrates the change over the compared survey period.

Figure 1. Average Years of Ownership



REPRODUCTION

Calf Weaning Rates – Data for weaning rates was collected in the 2003, 2007 and 2011 surveys. There has been a slight increase in weaning rates in heifers over this survey period, from 60% of first-calf heifers weaning a calf in 2003 to 78% in 2011. In 2011 data indicated that 77% of the cow herd weaned a calf. This figure is consistent with previous surveys.

Breed of Bull - The following tables reflect the data collected for breeds of bulls used on heifers and cows. This information was not obtained in the 2003 survey.

Table 2. Breeds of bulls used on heifers

Breed of Bull	Heifers 1998	Heifers 2003	Heifers 2007	Heifers 2011
Angus	43	nr ²	69	67
Hereford	9	nr	6	18
Brahman	3	nr	0	10
Brangus	26	nr	38	34
Braford	8	nr	10	5
Beefmaster	4	nr	4	
Charolais	3	nr	9	17
Other	4	nr	1	1

¹Data are in percent.

²Not reported

Table 3. Breeds of bulls used on cows

Breed of Bull	Cows 1998	Cows 2003	Cows 2007	Cows 2011
Angus	17	nr	65	56

Hereford	16	nr	9	17
Brahman	10	nr	9	20
Brangus	17	nr	51	56
Braford	11	nr	7	11
Beefmaster	7	nr	4	
Charolais	10	nr	23	23
Other	12	nr	1	1

Selecting Bulls – The following table illustrates the rank of importance that producers put on various selection parameters in choosing replacement bulls over the period of the surveys being compared.

Table 4.

Selection parameter	Rank of importance			
	1998	2003	2007	2011
Weaning weight	4	2	1	1
Yearling weight	7	7	2	
Sire summary	8	3	7	
Visual appearance	1	10		
Pedigree	6	8	3	
Expected progeny difference (EPD)	2	1	9	2
Scrotal circumference	5	4	4	
Libido score	9	5	8	
Price	3	11	5	3
Carcass information	10	9		
Herd ratio	12	6		
Birth Weight			5	
Other	11	3		

Breeding Season Information – The following table describes the data collected over the surveys for producers that do or do not implement a breeding season. Surveys indicate that a majority of producers put their bulls out in January and bring them in April.

Table 5.

Breeding Season	1998	2003	2007	2011
Yes	69 ¹	75	71	63
No	31	25	29	37

¹Data are in percent

How Often are Bulls Semen Tested – The table below illustrates the frequency with which bulls are semen tested over the survey periods.

Table 6.

Breeding soundness test	1998	2003	2007	2011
Test bulls annually	38 ¹	34	43	55
Test bulls every 2 or 3 years	17	24	17	9
Test bulls when purchased	22	24	28	17
Never test	21	18	12	19

¹Data are in percent.

Tested for Trichomoniasis - In the 1998 survey 25% of the producers checked for trichomoniasis. In the 1990 survey, 22% of the ranching operations checked for trichomoniasis, while in 2003 23% reported checking for trichomoniasis. In 2007, 31% checked for trichomoniasis. In 2011, 43% reported testing for trichomoniasis. There has been an increased trend toward trichomoniasis testing in the last decade.

Pregnancy Checking the Cow Herd - In the 2011 survey 52% of producers palpated all cows. Comparison to previous surveys are shown in the following table.

Table 7.

Cows palpated	1998	2003	2007	2011
Palpated all cows	34 ¹	49	46	52
Palpated only dry cows	23	49	29	na ²

¹Data are in percent. ²Information not asked for.

In the 2011 survey of those that palpated for pregnancy 39% did it themselves and 67% used a veterinarian. Comparisons with previous surveys are:

Table 8.

Who palpates	1998	2003	2007	2011
Owner or employee	46 ¹	38	34	39
Veterinarian	55	58	66	67
Other	7	4	na ²	na

¹Data are in percent. ²Information not asked for.

In the 2011 survey pregnancy rates were 87% for virgin heifers, 83% for first-calf cows, and 80% for mature cows. In the 2007 survey average pregnancy rates were 83% for virgin heifers, 84% for first-calf heifers, and 87% for mature cows, in 2003 the respective percentage are 83,81 and 86, and in 1998 respective percentage rates are 81, 77 and 84.

Obtaining Replacement Heifers – The following table describes how producers obtain replacement heifers over the survey periods.

Table 9.

Obtaining	1998	2003	2007	2011
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Replacement Heifers				
Raised their own	90 ¹	82	82	93
Purchased bred	24	24	26	24
Purchased open	19	18	19	16

¹Data are in percent.

Calving Heifers for First Time - In the 1998 survey 40% of producers calved heifers first at 2 year of age and 43% calved first at 3 years of age. Thirteen percent indicated they calved at both 2 and 3 years of age. Comparison to the following surveys are presented in the following table.

Table 10.

Heifer age at first calving	1998	2003	2007	2011
At 2 years of age	40 ¹	51	56	57
At 3 years of age	43	47	44	40
At 2 and 3 years of age	13	--	--	--
Other	4	3		3

¹Data are in percent.

Management of Replacements - In the 2011 survey, 76% percent of producers managed replacements separate from the cow herd. In 2007, 75% managed replacements separately. In 2003, 79% managed replacements separately and in 1998, 65% managed replacements separately.

In 2011 survey, 47% of producers exposed heifers to bulls prior to the cow herd, 40% in 2007, and 42% in 2003.

Culling the Cow Herd - In the 2011 survey, the average annual culling rate was 8%. Average culling rate was 11% in the 2007 survey. The 2003 culling rate was 9.6%. The 1998 culling rate was 9%.

Factors Limiting Reproduction -In the 2011 survey, producers indicated that nutrition is the greatest limiting factor to reproduction, followed by management and reproductive diseases. Data from the previous three surveys is shown below.

Table 11.

Factor limiting reproduction	1998	2003 rank #	2007	2011
Genetics	2 ¹	4	2	--
Parasites	3	3	4	--
Nutrition	1	1	1	1
Repro diseases	4	5	3	3
Other	4	2*	5*	2*

¹Data are in percent. * management

MARKETING

Annual Cow Cost – In 2011 survey data was collected on annual cow cost. South Florida ranchers estimate their cost per cow per year to be \$246.00.

Weight and Age of Calves at Weaning - In the 2011 survey producers indicated that calves are weaned at approximately 470 pounds and 7.3 months of age. Comparisons to the three previous surveys are shown in the following table.

Table 12.

Weaning variable	1998	2003	2007	2011
Avg. weight at weaning, lb	458	464	475	470
Avg. age at weaning, mo.	7.8	8	8	7.3

Marketing Methods - In the 2011 survey 76% of producers marketed calves through auction barns. Video auction has gained in popularity over the time of the surveys.

Table 13.

Marketing route	1998	2003	2007	2011
Auction barns	87 ¹	85	79	76
Order buyers	25	14	--	--
Video auction	11	22	20	34
Board sales	1	1	--	2
Private treaty/order buyer	28	32	29	32
Retained ownership	12	4	9	18
Participate in alliance	2	2	--	1

¹Data are in percent.

Calf Management Procedures Performed - In the 1998 survey 82% of producers castrated calves before weaning. In the 2011 survey castration and vaccination for respiratory diseases were the most common calf management procedures.

Table 14.

	1998	2003	2007	2011
Castration	82 ¹	81	74	89
Implant	49	50	41	53
Deworm	77	--	--	--
Teach to drink from trough	37	41	38	51
Teach to eat from trough	32	34	23	40
Dehorn genetically	37	44	51	47
Dehorn physically	51	45	43	59
Vaccinate for respiratory diseases	45	48	49	64

¹Data are in percent.

PRODUCTION

Identifying Cows and Calves - In the 2011 survey 54% of producers identified the cow and 35% identified the calf. Comparison to past surveys were:

Table 15.

Animal identified	1998	2003	2007	2011
Each cow	64 ¹	62	66	54
Her calf	32	39	38	35

¹Data are in percent.

Beef Herd Records - In the 2011 survey 66% of producers indicated they kept beef herd records. This compared to 68% in the 1998, 77% in the 2003 survey and 73% in the 2007 survey.

In the 1998 survey, of producers who kept records, 83% kept financial and 57% kept production records. Fifty percent of those who kept financial records indicate they used them for business analysis and 45% of producers who kept production records used them to select and cull the cow herd. In the 1990 survey, 88% of the ranchers who kept production records used them to cull cows and 73% used them to select replacement heifers. The 2003 numbers were 65% and 44% respectively. In 2007, 63% keep financial records and 50% utilize production records. Only 47% of the producers indicated that they use herd records to select heifers and/or cull cows. In 2011, 64% utilize the records for business analysis and 43% use the records to select heifers and/or cull cows.

HERD HEALTH

Controlling External Parasites - In the 1998 and 2003 surveys 99% of producers said they used methods to control external parasites. These percentages were 98% in the 2007 and 2011 surveys. The measures used to control external parasites and comparisons with previous surveys are:

Table 16.

Control method	1998	2003 rank	2007	2011
Eartags	28 ¹	3	27	28
Pour-on	88	1	87	94
Spray	52	2	28	29
Back-rub	16	4	14	25
Dust bag	12	6	8	4
Medicated feed	4	5	9	13
Other	5	0	0	6

¹Data are in percent.

Controlling Internal Parasites - The following table shows the class of animals dewormed according to the 2011 survey, and comparisons to previous surveys:

Table 17.

Class of animals dewormed	1998	2003	2007	2011
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Cows	94 ¹	98	98	98
Calves	80	89	96	96
Bulls	95	98	98	98
Replacement heifers	88	98	98	98

¹Data are in percent.

Controlling Internal Parasites - The following table shows the method of treatment for internal parasites according to the 2011 survey and comparisons to previous surveys:

Table 18.

Deworming method	1998	2003 rank	2007	2011 rank
Injectable	67 ¹	2	71	2
Pour-on	73	1	80	1
Drench	38	3	30	--
Mineral feed	4	5	11	6
Paste or gel	16	4	8	--
Medicated block	4	6	5	7
Bolus	2	7	1	--

¹Data are in percent.

Controlling Liver Flukes - In the 2011 survey 83% of producers treated for liver flukes. This compared to 65% in 1998, 74% in 2003 and 80% in the 2007 surveys.

Vaccinations - According to the 2011 survey the following vaccinations were given to the cow herd. These data are compared to the three previous surveys.

Table 19.

Vaccine type	1998	2003	2007	2011
Brucellosis	67 ¹	53	44	47
Lepto	62	57	70	84
Vibrio	62	53	66	87
Blackleg	66	59	70	83
Pinkeye	9	10	8	20
Tetanus	16	17	18	27
Trichomoniasis	20	23	27	37
Haemophiles somnus	18	21	17	21
Red water	30	33	38	31
Pasteurella	24	21	32	31
E. coli	10	9	13	16
IBR, PI3, BVD and BRSV	48	45	58	61

¹Data are in percent.

NUTRITION

Supplements Fed During the Winter - In the 2011 survey the supplements fed during the winter and comparison to past surveys are listed in the following table:

Table 20.

Type of supplement	1998	2003	2007	2011
Molasses	64 ¹	60	56	67
Molasses slurry	11	10	3	5
Range cubes	29	26	26	35
Protein mineral	31	31	11	18
Dry mixed feed	11	14	20	31
Dry citrus pulp	14	15	5	7
Wet citrus pulp	6	18	16	10
Salt/protein mix	28	23	22	30
Protein block	28	20	15	23
Wheat midds	0	0	0	0
Soy hulls	1	0	0	0
Poultry litter	1	0	0	0
Culled oranges and grapefruit	9	8	0	0
No supplement	2	4	6	0
Other	5	0	0	0

¹Data are in percent.

Winter Forage Use - In the 2011 survey the forages used in the winter and comparisons to previous surveys are shown in the following table. Winter forage appears to be decreasing in popularity among surveyed producers.

Table 21.

Winter forage source	1998	2003	2007	2011
Native range	75 ¹	69	69	64
Hay	74	65	62	64
Silage	2	5	7	4
Winter pasture	32	25	19	17
Stockpiled forage	48	49	38	38

¹Data are in percent.

Analysis of Forage - In the 2011 survey 35% of producers surveyed said they have had hay and/or silage analyzed. This compared to 19% in the 1998, 15% in 2003 and 18% in the 2007 surveys.

In the 1998 survey 16% of producers indicated they had pasture grasses analyzed for quality compared to 23% in 2003, 19% in 2007 and 30% in the 2011 surveys.

Use of Cow Condition as a Management Tool - In the 2011 survey 81% of producers surveyed use cow condition to decide when to start or stop supplementing. This compared to 69% in 1998, 73% in 2003 and 66% in the 2007 surveys. Eighty-two percent use cow condition to determine how much supplement to feed. This compared to 60% in 1998, 77% in 2003 and 68% in 2007 surveys.

Mineral Supplementation – In the 2011 survey, 99% of South Florida beef producers provided mineral supplementation to their cattle with 90% of the producers providing mineral all year. This compared to 99% provided mineral supplementation in 2003 and 95% in 2007.

FORAGE PRODUCTION

Pasture Information - For the 2011 survey, 99% on ranchlands were used for pasture. The remaining 1% w as utilized for hay production. The following table compares the previous surveys.

Table 22.

	1998	2003	2007	2011
Acres pasture	96 ¹	99	93	99
Acres hay	4	1	7	1

¹Data are in percent.

In the 2011 survey, 83% of the acreage was owned and 34% was leased at an average of \$13/acre. The following table compares the previous surveys.

Table 23.

	1998	2003	2007	2011
Acres owned	nr*	75 ¹	79	83
Acres rented	nr	25	21	34
\$/Acre rented land	\$10.68	\$9.82	\$13.17	\$13.00

¹Data are in percent. *Not reported.

Types of Grasses - For the 2011 survey grasses used on ranches and comparison to previous surveys are shown below. Acreage of grasses was obtained in the 2011 survey and average acres per ranch are shown. In the 2011 survey, bahiagrass was the most commonly used forage.

Table 24.

Types of Grasses	1998	2003	2007	2011
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Bahiagrass	93 ¹	47	52	95
Native	nr ²	33	27	55
Limpograss/hemarthria	25	4	12	44
Bermudagrass	24	5	3	29
Stargrass	23	2	2	16
Ryegrass	21	3	1	14
Mulato	nr	nr	0	4
Digitgrass	nr	3	0	3
Summer Annual Grass	nr	2	0	3
Other Winter Grass	nr	0	0	1

¹Data are in percent. ²Not reported.

Types of Legumes - For the 2011 survey types of legumes used on ranches and comparisons to past surveys are shown in the following table. The average acreage for each legume on ranches where they were planted is shown for the 1998 survey.

Legume	1998	2003	2003	2011
	Percent	Rank	Rank	Rank
Aeschynomene	18 ¹	1	nr ²	1
Aeschynomene evenia	8	4	nr	5
Hairy indigo	10	-	nr	4
Alyce clover	5	-	nr	-
Carpon desmodium	5	2	nr	3
Savanna stylo	5	-	nr	-
Perennial peanut	3	-	nr	-
White clover	11	3	nr	2

¹Acreage on ranches that had planted these legumes. ²Not reported.

Rotational Grazing - In the 2011 survey 84% of producers used rotational grazing. This compared to 83% in the 2007 survey, 84% in 2003 and 79% in 1998.

Most Important Factor in Determining Fertilization Program – For the 2007 survey, ranking of most important factors in determining the pasture fertilization program compared to other years. This data was not reported in the 2011 survey.

Factor	1998	2003	2007	2011
Previous experience	1	1	1 ²	nr
University recommendations	4	4	2	nr
Fertilizer dealer	3	3	nr	nr
Soil test	2	2	1	nr
Tissue test	nr ¹	nr	3	nr

¹not reported ²Previous experience and soil test tied for most important factor

Lime/Fertilizer Application – In the 2011 survey, percent of respondents that limed and fertilized their pasture and hay fields compared to other years. In the 1998 survey 63% percent of producers said they limed bahiagrass, 59% limed other grasses, and 73% limed hay. The data for 2003 was 61%, 24% and 15% respectively. The frequency in which they applied lime is presented in the following table.

Application	1998 ¹	2003 ²	2007	2011
Lime	63 ³	nr	nr	60
Fertilizer	82	nr	nr	66

³Data reported for bahiagrass only ²Data not reported ³Data are in percent

Use of Organic Waste for Fertilizer – In the 2011 survey, 8% of respondents used some type of organic waste on their pastures (sludge, biosolids, poultry litter, etc.) as compared to 12% in the 2007 survey, 14% in 2003 and 11% in 1998.

Mole Cricket Pasture Damage - In the 2011 survey 40% of respondents reported pasture damage from mole crickets compared to 35% in the 2007 survey, 43% in 2003 and 64% in 1998.

Troublesome weeds - For the 2011 survey, ranking of most troublesome weeds compared to past surveys. In 2011, producers ranked dogfennel as the most troublesome followed by tropical soda apple (TSA) and smutgrass.

Weed	1998	2003	2007 ¹	2011
Dog fennel	1	3	nr	1
Smutgrass	2	2	nr	3
Tropical soda apple (TSA)	3	1	nr	2

¹Data not reported

Methods Used to Control Weeds - For the 2011 survey, percentage of respondents indicating the use of the following methods for weed control compared to previous surveys. In 2011 mowing and chopping was utilized by 91% of respondents, 87% used herbicides and 8% conducted a complete pasture renovation.

Method of weed control	1998	2003	2007	2011
Complete pasture renovation	15	11	9	8
Herbicides	68	70	78	87
Mowing or chopping	98	89	86	91

ENVIRONMENTAL CONSIDERATIONS

Open Water Areas – For the 2011 survey, percentage of respondents that indicated the presence of open water areas on their property, the percentage of these that allow access to cattle in these areas, and the percentage that fence off open water areas compared to previous surveys. In 2011, 75% of respondents indicated the presence of open water areas on their operation. The survey indicated that 97% of the producers allow cattle to have access to pen water areas. Many producers (73%) do not fence off open water areas.

Open Water	1998	2003	2007	2011
Present on operation	88	84	75	76
Accessible to cattle	94	89	97	93
Fenced off	8	nr ¹	17	25

¹Data not reported.

Water Troughs – For the 2011 survey, 75% of producers with accessible open water areas provided water troughs compared to 68% in the 2007 survey, 57% in 2003 and 61% in 1998.

Feeding Around Open Water Sources – For the 2011 survey, 87% of survey respondents did not feed minerals, hay or supplements to their animals withing 200 feet of open water areas compared to 88% of respondents in the 2007 survey, 79% in 2003 and 78% in 1998.

Water Quality Manual – For the 2011 survey, 79% of ranchers applied management practices contained in the “Water Quality Best Management Practices for Florida Cow/Calf Operations” manual as compared to 53% of respondents in the 2007 survey and 67% in 2003. The Water Quality Best Management Practices for Florida Cow/Calf Operations was formally established in 1999.

ADDITIONAL INFORMATION

UF/IFAS Extension – For the 2011 survey, 96% of respondents reported that the service of UF/IFAS Extension to Florida’s beef industry was satisfactory compared to 97% in the 2007 survey and 92% in 2003. This question was not asked in 1998.

Information Sources – For the 2011 survey, percentage of respondents that indicated their sources of information on beef production and/or management practices utilized compared to previous surveys. In 2011, 77% of the respondents obtained information from other cattlemen.

Source of Information	1998	2003	2007	2011
Other Cattlemen	84	84	74	77
Veterinarian	67	72	57	66
County Extension Agent	66	73	63	61
Magazines	63	63	49	58
Company Representatives (Fertilizer, Feed, etc.)	43	48	38	40
Farm Organizations	23	28	24	35
Internet	11	23	18	27
Close Relatives	21	23	16	20

Problems Facing the Cattle Industry – For the 2011 survey, ranking of issues of concern facing the beef cattle industry compared to previous surveys. In 2011, environmental issues and governmental regulations were ranked as the most important, follow by animal welfare issues and consumer concerns.

Issue of Concern	1998	2003	2007	2011
Environmental issues	3			1
Government regulation	1			1
Animal welfare			2	2
Consumer concerns		2	3	3
Urban encroachment			1	
Price ranchers receive for calves		1		
Retail price of beef		3		
Demand for beef	2			