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## Results of a production analysis survey of cow herds in Kansas

### Authors

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# RESULTS OF A PRODUCTION ANALYSIS SURVEY OF COW HERDS IN KANSAS

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## Summary

A survey of production levels and management practices of 205 cow herds representing over 26,000 cows in Kansas was conducted in 1991. These operations were located throughout Kansas except for the Northwest corner. Emphasis was placed on determining levels of production and reproductive parameters. Breeders emphasized calf crop. For example, the average calf crop was 91.6%, with 4.3% open females and 4.4% calf death loss. Cumulative calving percentages by 21-day calving periods were 32, 55, and 68%. Average weaning weights were 550 lb. for steers and 515 lb for heifers. Additionally, information was collected on breeding, nutrition, health, and general management practices.

(Key Words: Cow/Calf, Production, Reproduction, Management, Survey.)

## Introduction

Surveys of production levels and management practices are useful to provide comparison data for producers and to document problem areas for Extension and research personnel. This survey was part of the Kansas Integrated Resource Management (IRM) Program.

## Experimental Procedures

The surveys were conducted in the fall of 1991 and early winter of 1992 and represented the calf crop weaned in 1991. To increase accuracy, all forms were completed during on-farm visits. In tabulating the reproductive parameters, producers accounted for all females originally exposed and all subsequent reproductive losses. Those surveyed were all members of the Kansas Farm Management Associations and expressed an interest in participating. Consequently, the information collected does not represent a random sample; however, it does represent a diverse group of Kansas operations with various calving seasons and production systems.

## Size of Herds

|                       |              |    |
|-----------------------|--------------|----|
| Total Number of Herds | 205          |    |
| Total Females Exposed | 26,015       |    |
| Average Herd Size     | 127          |    |
| Herd Size Profile     |              |    |
| Number of Cows        | No. of Herds | %  |
| Less than 50          | 26           | 13 |
| 50 - 100              | 66           | 32 |
| 101 - 150             | 58           | 28 |
| > 150                 | 55           | 27 |

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## Reproductive Efficiency

| Item                                          | Avg.  | Range       |
|-----------------------------------------------|-------|-------------|
| Open Females                                  | 4.3%  | 0.0 - 19.0% |
| Calf Death Loss                               | 4.4%  | 0.0 - 16.5% |
| Calf Crop                                     | 91.6% | 75.6 - 100% |
| Calving Distribution<br>(Based on 155 Herds)  |       | Avg.        |
| Born in First 21 Days                         |       | 32%         |
| Born in First 41 Days                         |       | 55%         |
| Born in First 63 Days                         |       | 68%         |
| Heifers Requiring Calving Assistance -- 21.9% |       |             |
| Heifers Requiring Mechanical Puller -- 14.6%  |       |             |

## Production

### Spring Calving Herds:

Avg. Steer Weaning Weight = 545 lbs  
Avg. Heifer Weaning Weight = 512 lbs

### Fall Calving Herds:

Avg. Steer Weaning Weight = 611 lbs  
Avg. Heifer Weaning Weight = 570 lbs

### All 205 Herds:

Avg. Steer Weaning Weight = 550 lbs  
Avg. Heifer Weaning Weight = 515 lbs

## Breeding Program

| Breed of Bulls Used on Heifers |    | Breed of Bulls Used on Mature Cows |    |
|--------------------------------|----|------------------------------------|----|
| Sire                           | %  | Sire                               | %  |
| Angus                          | 40 | Angus                              | 26 |
| Salers                         | 11 | Simmental                          | 18 |
| Polled Hereford                | 8  | Horned Hereford                    | 10 |
| Horned Hereford                | 7  | Limousin                           | 9  |
| Limousin                       | 7  | Salers                             | 9  |
| Simmental                      | 6  | Gelbvieh                           | 8  |
| Longhorn                       | 5  | Polled Hereford                    | 7  |
| Gelbvieh                       | 4  | Charolais                          | 5  |
| Red Angus                      | 3  | Brangus                            | 2  |
| Brangus                        | 2  | Red Angus                          | 1  |
| Brahman                        | 2  | Shorthorn                          | 1  |
| Other                          | 5  | Chianina                           | 1  |
|                                |    | Maine Anjou                        | 1  |
|                                |    | Other                              | 2  |

| Method of Obtaining Herd Replacements |    |
|---------------------------------------|----|
| Option                                | %  |
| 1) Purchase Yearling Heifers          | 2  |
| 2) Purchase Bred Heifers              | 5  |
| 3) Purchase Mature Cows               | 10 |
| 4) Raise Replacements                 | 83 |
| Herds with Crossbreeding Plan -- 36%  |    |

| Source of Bulls     |    |
|---------------------|----|
| Source              | %  |
| Direct from Breeder | 88 |
| Raise Own           | 16 |
| Test Station        | 15 |
| Consignment Sale    | 7  |
| Salebarn            | 5  |

## Breeding Program (CONT)

| Selection Criteria Used for Heifers: |                        |                         |
|--------------------------------------|------------------------|-------------------------|
| Criteria                             | First Consideration, % | Among Top 5 Criteria, % |
| Type/Conformation                    | 24                     | 66                      |
| Disposition                          | 13                     | 62                      |
| Performance of Dam                   | 13                     | 40                      |
| Size                                 | 10                     | 41                      |
| Frame                                | 9                      | 49                      |
| Weaning Weight                       | 9                      | 31                      |
| Weight-for-Age                       | 7                      | 32                      |
| Yearling Weight                      | 3                      | 20                      |

| Selection Criteria used for Bulls: |                        |                         |
|------------------------------------|------------------------|-------------------------|
| Criteria                           | First Consideration, % | Among Top 5 Criteria, % |
| Type/Conformation                  | 19                     | 55                      |
| Birth Wt/Calv. Ease EPD            | 19                     | 50                      |
| Actual Birth Weight                | 14                     | 45                      |
| Wean./Yearling Wt EPD              | 9                      | 40                      |
| Frame                              | 7                      | 34                      |
| Breeder Reputation                 | 5                      | 17                      |
| Performance of Sire                | 5                      | 14                      |
| Disposition                        | 4                      | 30                      |

## General Management

| Management Factors                           | %  |
|----------------------------------------------|----|
| Breed Heifers Prior to Cows                  | 49 |
| Individually ID Calves                       | 72 |
| Cull - Open Heifers                          | 95 |
| - Heifers that Lose a Calf                   | 65 |
| - Open Cows                                  | 96 |
| Separate Cows that Have Calved from the Herd | 31 |
| Supply Extra Feed for:                       |    |
| - Heifers                                    | 76 |
| - Young Cows                                 | 66 |
| - Old Cows                                   | 54 |
| Implant Steer Calves Prior to Weaning        | 84 |
| Implant Heifer Calves Prior to Weaning       | 57 |
| Creep Feeding:                               |    |
| No Creep Feed                                | 74 |
| Grain Creep                                  | 18 |
| Forage Creep                                 | 5  |
| Protein Creep                                | 3  |
| Semen Check:                                 |    |
| Yearling Bulls                               | 69 |
| Mature Bulls                                 | 51 |
| Individually Weigh Calves at Weaning         | 15 |

## Feeding Program

**NOTE:** In the following sections, many producers listed more than one feedstuff, method of feeding, or supplement, indicating that a variety was typically utilized. This results in over 100% for total responses.

| Range Management               | %  |
|--------------------------------|----|
| Have Good Grazing Distribution | 87 |
| Practice Rotation Grazing      | 45 |

| Method of Feeding Forage | %  |
|--------------------------|----|
| Fed on Ground            | 42 |
| Fed in Feeders           | 57 |
| Forage Ground and Mixed  | 31 |

| Common Winter Supplements  | %  |
|----------------------------|----|
| High Protein (all natural) | 26 |
| High Protein (with urea)   | 15 |
| Low Protein                | 10 |
| Liquid Supplement          | 4  |
| Grain                      | 44 |
| Legume Hay                 | 64 |

### Feeding Program (CONT)

| Primary Winter Forages | %  |
|------------------------|----|
| Range Grazing          | 38 |
| Milo Stubble           | 40 |
| Legume Hay             | 50 |
| Sorghum Silage         | 18 |
| Cane Hay               | 25 |
| Corn Stalks            | 16 |
| Grass Hay              | 5  |
| Corn Silage            | 5  |

| Percentage of Producers Using Specific Mineral Supplements by Season |        |        |      |
|----------------------------------------------------------------------|--------|--------|------|
| Supplement                                                           | Summer | Winter | Fall |
| Salt                                                                 | 92     | 79     | 77   |
| TM Salt                                                              | 69     | 70     | 53   |
| High P                                                               | 79     | 95     | 68   |
| High Ca                                                              | 50     | 57     | 41   |
| High P with Mg                                                       | 15     | 19     | 85   |
| Other                                                                | 12     | 11     | 9    |

| Form of Mineral Supplementation | %  |
|---------------------------------|----|
| Mixed in Ration                 | 7  |
| Blocks                          | 25 |
| Loose, free choice              | 91 |

### Health Program

| Percentage of Herds Indicating Specific Disease Problems during Past Few Years |    |           |   |
|--------------------------------------------------------------------------------|----|-----------|---|
| Disease                                                                        | %  | Disease   | % |
| Scours                                                                         | 39 | IBR       | 5 |
| Pinkeye                                                                        | 32 | BVD       | 5 |
| Respiratory*                                                                   | 24 | Blackleg  | 3 |
| Foot Rot                                                                       | 19 | Lepto     | 3 |
| Coccidiosis*                                                                   | 14 | Vibriosis | 1 |
| Cancer eye                                                                     | 8  | Other     | 7 |

\*In many cases, this was observed postweaning.  
 Abortions: 14% of herds had 1 or more abortions  
 — calculated avg. abortion rate = .2%, range 0 to 2.9%

| Deworming Programs: | %  | Type Used  | %  |
|---------------------|----|------------|----|
| Don't Deworm        | 13 | Injectable | 57 |
| Cows Annually       | 9  | Paste      | 8  |
| Calves Annually     | 23 | Drench     | 11 |
| Cows and Calves     | 43 | Feed       | 4  |
| Cows Periodically   | 12 | Pour-on    | 6  |

| Grub and Lice Control          | %  | Fly Control         | %  |
|--------------------------------|----|---------------------|----|
| Don't Treat for Grubs and Lice | 10 | No Control          | 14 |
| Treat Cows                     | 4  | Ear Tags            | 53 |
| Treat Cows and Bulls           | 17 | Dust Bags           | 35 |
| Treat Cows, Bulls, and Calves  | 69 | Back Rubber         | 20 |
|                                |    | Spray               | 28 |
|                                |    | Fly Control Mineral | 20 |

### Vaccination Program

| Percentage of Cowherds Vaccinating for Specific Disease |      |         |        |       |
|---------------------------------------------------------|------|---------|--------|-------|
| Disease                                                 | Cows | Heifers | Calves | Bulls |
| Vibriosis                                               | 66   | 68      | 8      | 44    |
| Leptospirosis                                           | 75   | 79      | 12     | 52    |
| Blackleg                                                | 22   | 44      | 93     | 15    |
| Brucellosis                                             | 11   | 54      | 13     | 2     |
| IBR                                                     | 40   | 52      | 64     | 24    |
| BVD                                                     | 39   | 50      | 62     | 23    |
| PI <sub>3</sub>                                         | 34   | 44      | 56     | 21    |
| Scours                                                  | 23   | 23      | 10     | 2     |
| Haemophilus                                             | 13   | 18      | 29     | 8     |
| Pinkeye & Other                                         | 14   | 13      | 26     | 11    |