

WEBSTER COUNTY FAIR



4-H JUNIOR BEEF HERD RECORD BOOK

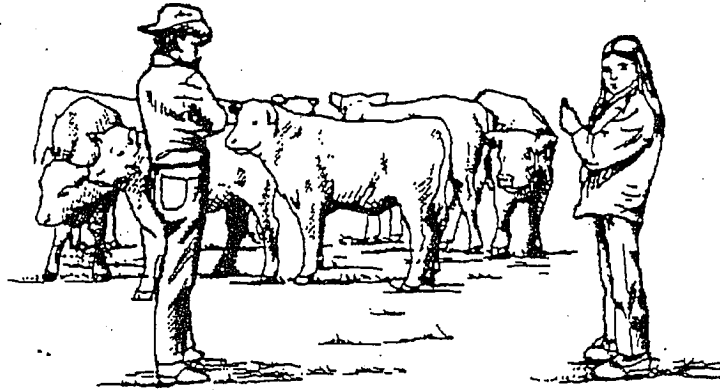
4-H Exhibitor

Address

4-H Club

Year

Signed



4-H JUNIOR BEEF HERD RECORD BOOK

Congratulations on deciding to go the extra mile in entering the Webster County Fair Junior Beef Herd competition.

The intent of this program is to help you start, build or improve an existing breeding program in the beef production area.

The following material is to help you in completing this project. We encourage you to work on as much of the records as possible. You are only required to turn in the one page summary at the end of this document; however, you may turn in the entire booklet if you desire. Your record page or book is to be carried into the ring at the time of the show for inspection of the judge. It is suggested that you enlist a couple of your friends or family to help you in presenting your herd.

Judging of the Junior Beef Herd will be done using live evaluation, knowledge of your project, and your records on the herd.

Good Luck as you prepare for the future!!

WEBSTER COUNTY

4-H JUNIOR BEEF HERD

PRODUCTION RECORDS GUIDE

Many beef producers base selection decisions in their herds completely on visual appraisal. By using individual cow records, beef producers can make decisions that will improve the genetics of their cow herds and, more importantly, base management decisions on traits that can improve profitability.

Performance records must be useable. Many producers do the necessary calculations on a hand calculator or on a home computer while others send the information to breed associations or individual businesses which put the information into a useable form.

Whatever record system you use—whether by computer or index card—keeping individual cow records takes commitment and time as well as ear tags, special equipment and hired labor.

For commercial producers, simplified records may be adequate. This is the information that may be important to a producer.

Cow and calf ID number

In order to keep performance records, all cows

and calves must be numbered or identified. There are many different numbering systems that work. It is a good idea to incorporate the year of birth into the number to facilitate quick decisions. For example, heifers and two-year-old cows are often bred separately from mature cows.

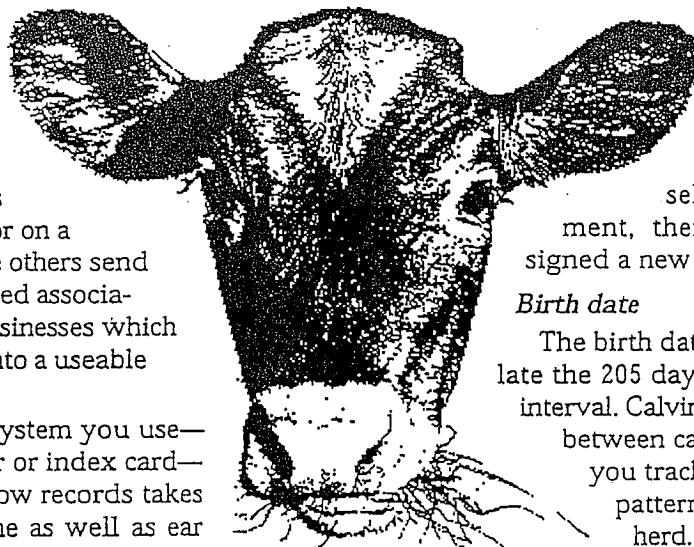
One system that is very popular is giving the calf the same number as the cow. If the calf is selected as a replacement, then it would be assigned a new I.D. number.

Birth date

The birth date is needed to calculate the 205 day weight and calving interval. Calving interval is the days between calvings and will help you track each cow's calving pattern over her life in the herd.

Birth weight

Birth weight is moderately heritable and high birth weight is the cause of most calving difficulties. By weighing calves at birth, you can select replacements for low birth weight and reduce the incidence of calving difficulties.



Calving ease data is an alternate on ranches where it is difficult to weigh each calf, or can be combined with birth weight information.

Calving ease

Calving ease is also moderately heritable. By recording assistance given to a cow, you can use cows which do not have calving difficulty as replacements. Calving ease records can supplement other selection tools such as pelvic measurement on heifers. Following is one system for recording calving difficulties.

Calving Ease Score	
Score	
1	No assistance
2	Assisted, easy pull
3	Assisted, hard pull
4	Caesarean delivery
5	Abnormal presentation

Weaning weight

Many producers sell their calves, by weight, at weaning. Knowing the weaning weight of individual calves can help in selecting replacements and in culling cows who consistently wean light calves.

If a weighing scale is not available, use a number score to estimate each calf's size in relation to the other calves in the herd. Below is a simple system to estimate and score calf size.

Calf Weaning Score	
Score	
1	Very large
2	Large
3	Average
4	Small
5	Very small

While it is not as accurate as actually weighing calves, estimating will help you to group calves by size. Do not confuse weaning scores with frame scores.

205 day weight

205 day weights are part of a system to even the differences in calf ages, cow ages and sex of the calf. The formula is:

$$\text{Adjusted 205 day weight} = (\text{Actual wean weight} - \text{birth weight} \div \text{age in days}) \times 205 + \text{birth weight}$$

If you do not weigh calves at birth, you could use a standard birth weight of 75 or 80 pounds in the formula. Once you have done the initial calculation, you need to adjust the weight for the dam's age and the calf's age. The adjustments are:

205 Day Weight Age of Dam Adjustment Factors		
Age of Cow	Male Calves	Female Calves
2 years old	+60 lbs	+54 lbs
3 years old	+40 lbs	+36 lbs
4 years old	+20 lbs	+18 lbs
5-10 years old	No Adjustment	
11+ years old	+20 lbs	+18 lbs

Weaning weight ratio

The weaning weight ratio can be used with either the actual weaning weight or the 205 day adjusted weight. The ratio will give you a percentage that each calf is compared to its herd mates. The average is 100, with animals having a ratio above 100 being above the herd average and scores lower than 100 being below the herd average. All scores are in percentages so a calf with a ratio of 108 is 8 percent above the herd average. The formula is:

$$\text{Ratio} = \frac{\text{Individual weight}}{\text{Herd average weight}} \times 100$$

Many producers will determine ratios by sex group, calculating the ratios for heifer calves and the ratios for male calves.

Adjusted 365 day weight

The 365 day weight is used to compare growth adjusted to one year of age. The formula is:

$$\text{Adjusted 365 day weight} = 160 \text{ times (actual final weight minus actual wean weight} \div \text{number of days between weights)} + 205 \text{ day weight}$$

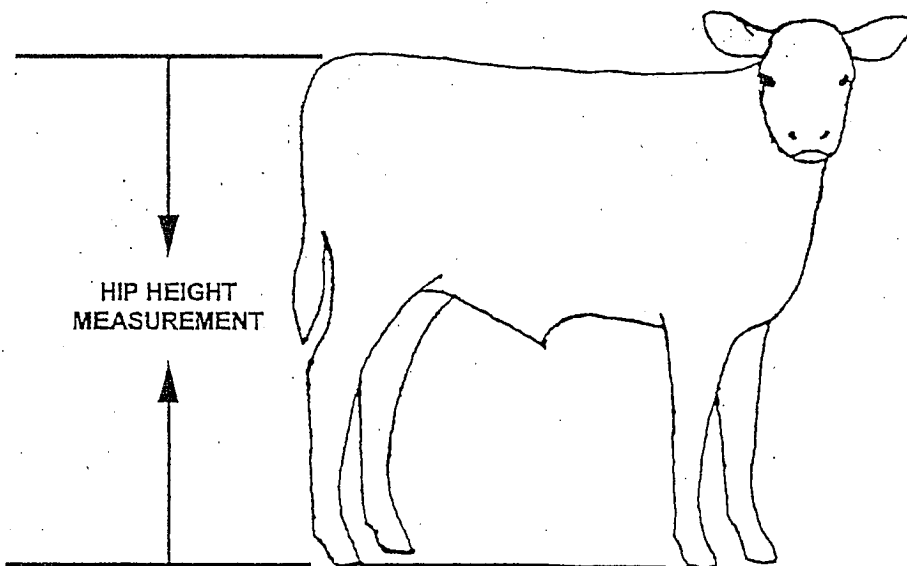
Yearling weight ratios can be calculated using the formula given for weaning weight ratios.

Record Systems

There are many very good record-keeping systems available and deciding which one to use can be difficult.

Heifer Hip Height (inches) Frame Score

Age in Months	Frame Score								
	1	2	3	4	5	6	7	8	9
5	33.1	35.1	37.2	39.3	41.3	43.4	45.5	47.5	49.6
6	34.1	36.2	38.2	40.3	42.3	44.4	46.5	48.5	50.6
7	35.1	37.1	39.2	41.2	43.3	45.3	47.4	49.4	51.5
8	36.0	38.0	40.1	42.1	44.1	46.2	48.2	50.2	52.3
9	36.8	38.9	40.9	42.9	44.9	47.0	49.0	51.0	53.0
10	37.6	39.6	41.6	43.7	45.7	47.7	49.7	51.7	53.8
11	38.3	40.3	42.3	44.3	46.4	48.4	50.4	52.4	54.4
12	39.0	41.0	43.0	45.0	47.0	49.0	51.0	53.0	55.0
13	39.6	41.6	43.6	45.5	47.5	49.5	51.5	53.5	55.5
14	40.1	42.1	44.1	46.1	48.0	50.0	52.0	54.0	56.0
15	40.6	42.6	44.5	46.5	48.5	50.5	52.4	54.4	56.4
16	41.0	43.0	44.9	46.9	48.9	50.8	52.8	54.8	56.7
17	41.4	43.3	45.3	47.2	49.2	51.1	53.1	55.1	57.0
18	41.7	43.6	45.6	47.5	49.5	51.4	53.6	55.5	57.4
19	41.9	43.9	45.8	47.7	49.7	51.6	53.6	55.5	57.4
20	42.1	44.1	46.0	47.9	49.8	51.8	53.7	55.6	57.6
21	42.3	44.2	46.1	48.0	50.0	51.9	53.8	55.7	57.7



Steer Hip Height (inches) Frame Score

Age in Months	Frame Score								
	1	2	3	4	5	6	7	8	9
5	33.5	35.5	37.5	39.5	41.6	43.6	45.6	47.7	49.7
6	34.8	36.8	38.8	40.8	42.9	44.9	46.9	48.9	51.0
7	36.0	38.0	40.0	41.2	44.1	46.1	48.1	50.1	52.2
8	37.2	39.2	41.2	43.2	45.2	47.2	49.3	51.3	53.3
9	38.2	40.2	42.3	44.3	46.3	48.3	50.3	52.3	54.3
10	39.2	41.2	43.3	45.3	47.3	49.3	51.3	53.3	55.3
11	40.2	42.2	44.2	46.2	48.2	50.2	52.2	54.2	56.2
12	41.0	43.0	45.0	47.0	49.0	51.0	53.0	55.0	57.0
13	41.8	43.8	45.8	47.8	49.8	51.8	53.8	55.8	57.7
14	42.5	44.5	46.5	48.5	50.4	52.4	54.4	56.4	58.4
15	43.1	45.1	47.1	49.1	51.1	53.0	55.0	57.0	59.0
16	43.6	45.6	47.6	49.6	51.6	53.6	55.6	57.5	59.5
17	44.1	46.1	48.1	50.1	52.0	54.0	56.0	58.0	60.0
18	44.5	46.5	48.5	50.5	52.4	54.4	56.4	58.4	60.3
19	44.9	46.8	48.8	50.8	52.7	54.7	56.7	58.7	60.6
20	45.1	47.1	49.1	51.0	53.0	55.0	56.9	58.9	60.9
21	45.3	47.3	49.2	51.2	53.2	55.1	57.1	59.1	61.0

Frame and Muscle Score

Frame size is related to the weight at which, under normal feeding and management practices, an animal will produce a carcass that will grade Choice. Large frame animals require a longer time in the feedlot to reach a given grade and will weigh more than a small frame animal would weigh at the same grade. Thickness is related to muscle to bone ratio and at a given degree of fatness to carcass yield grade. Thicker muscled animals will have more lean meat. The Feeder Cattle Standards recognize three frame size grades and four muscle thickness grades.

In addition to 12 combinations (3 frame size and 4 muscle thickness) of Feeder Cattle Grades for thrifty animals, an Inferior grade exists for unthrifty animals. The Inferior grade includes feeder cattle, which are unthrifty because of mismanagement, disease, parasitism, or lack of feed. An animal that grades Inferior could qualify for a muscle thickness and frame size grade at a later date, provided the unthrifty condition is corrected.

"Double-muscled" animals are included in the Inferior grade. Although such animals have a superior amount of muscle, they are graded U.S. Inferior because of their inability to produce carcasses with enough marbling to grade Choice.

Frame and Muscle Score

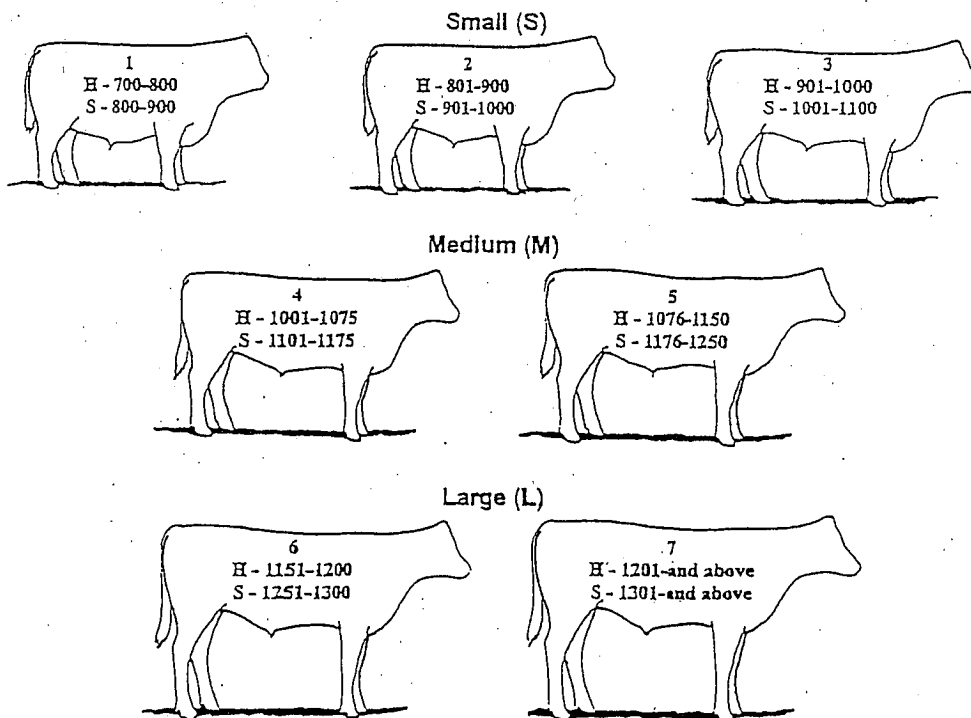
Frame	Expected Weight to Grade Choice	
	Steers	Heifers
Large +		
L Large		
Large -	↑ 1250#	↑ 1150#
Medium +		
M Medium		
Medium -	↑ 1100#	↑ 1000#
Small +	↓	↓
S Small		
Small -		

Minimum Thickness	Degree of Thickness.
1	Moderately Thick -
2	Tends to be Slightly Thick -
3	Thin -
4	

U.S. Department of Agriculture
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Agricultural Marketing Service
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Choice weight related to frame size for heifers and steers



- Is your heifer/steer: Smaller than average (small frame)
 Average size (medium frame)
 Larger than average (large frame)

STANDARD BEEF CODES

MOST FREQUENTLY USED BREED CODES

AN	Angus	SB	Galloway	SA	Salers
BD	Blonde d'Aquitaine	GV	Gelbvieh	SG	Santa Gertrudis
BM	Beefmaster	HH	Hereford (Horned)	SS	Shorthorn (Beef Scottish)
BR	Brahman	HP	Hereford (Polled)	MS	Shorthorn (Milking)
BS	Brown Swiss	HO	Holstein	SI	Simbrah
SB	Brown Swiss (Beef)	LM	Limousin	SM	Simmental
CH	Charolais	MA	Maine-Anjou	CS	Simmental (Commercial)
CA	Chianina	AR	Red Angus	TA	Tarentaise
DE	Devon	RP	Red Poll	MX	Mixed Breeds

INTERNATIONAL YEAR/LETTER CODES:

U=1986	B=1992	H=1998	P=2004	X=2010
W=1987	C=1993	J=1999	R=2005	Y=2011
X=1988	D=1994	K=2000	S=2006	Z=2012
Y=1989	E=1995	L=2001	T=2007	A=2013
Z=1990	F=1996	M=2002	U=2008	B=2014
A=1991	G=1997	N=2003	W=2009	C=2015

BIRTH CODES

S = Single
 TS = Twin, Same Sex
 TO = Twin, Opp. Sex
 TR = Triplet
 ET = Embryo Trans.
 FE = Frozen Embryo

CALVING EASE CODES

1 = Unassisted
 2 = Easy Pull
 3 = Hard Pull
 4 = Caesarian Section
 5 = Abnormal Present
 6 = Dead on Arribal

MANAGEMENT CODES

D = Dam Only
 C = Dam with Creep
 B = Without Dam
 T = Twin or Foster Dam

TATTOO/BRAND LOCATION

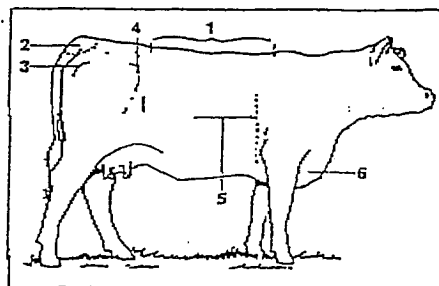
LH = Left Hip
 LR = Left Rib
 LS = Left Shoulder
 LE = Left Ear
 RH = Right Hip
 RR = Right Rib
 RS = Right Shoulder
 RE = Right Ear
 BE = Both Ears

SEX CODES

B = Bull
 H = Heifer
 S = Steer
 F = Freemartin

POLL CODES

H = Horned
 P = Polled
 P/S = Polled Scurred



1 BACK _____ 2 TAIL HEAD _____ 3 PINS _____
 4 HOCKS _____ 5 RIBS _____ 6 BRISKET _____

BODY CONDITION SCORING SYSTEM:

1=Severely Emaciated. All ribs and bone structure easily visible. Hooks, pins, shoulder and back are sharp and distinct. Cow is physically weak. Animal has difficulty standing or walking. No palpable fat over back bone, loin edge, hip bones or ribs. Muscles are concave and showing evidence of atrophy.

2=Poor – Cow still appears somewhat emaciated but tail head and ribs less prominent. The spinous processes are sharp and easily seen with space between them. Some muscling is present in the hindquarters. Similar to 1, but cow is not as weakened.

3=Thin - No palpable or visible fat on ribs, brisket or shoulder blades. Ribs are individually identifiable. There may be palpable fat along the back bone and over tail head. Individual muscles in the hind quarter are easily visible and spinous processes are very apparent.

4=Borderline – Fore ribs are not noticeable but the 12th and 13th ribs can be seen and pin bones are easily visible. Some fat covers ribs, back bones, and hip bones. Individual muscles in the hind quarter are apparent. Transverse spinous processes feel rounded rather than sharp when palpated and muscling in hindquarters is full but straight.

5=Moderate – Cow has good overall appearance. Ribs are less apparent than in 4, and have less than 0.2 inches of fat on them. Last two or three ribs can be felt easily. No fat in the brisket. At least 0.4 inches of fat can be palpated on pin bones. Individual muscles in hind quarter are not apparent. The 12th and 13th ribs are not noticeable unless the animal has been shrunk. The transverse spinous processes feel rounded rather than sharp and are not visible to the eye. Areas on each side of the tail head are well-filled but not mounded. Palpable fat on either side of tail head.

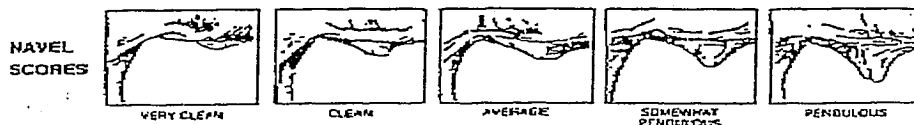
6=High Moderate - Smooth appearance throughout. Some fat deposition in brisket. Individual ribs are not visible. About 0.4 inches of fat on the pin bones and on the last two or three ribs. Ribs are fully covered and not noticeable to the eye. Hindquarters are plump and full. There is noticeable sponginess over fore ribs and each side of the tail head. Firm pressure is needed to feel back bone of cow.

7=Good – Cow appears fleshy and obviously carries considerable fat. Brisket is full, tail-head and pin bones have protruding deposits of fat on them. Back appears square because of fat. Indentation over spinal cord due to fat on each side. Between 0.4 and 0.8 inches of fat on last two to three ribs. Ends of spinous processes can only be felt with firm pressure. Abundant fat cover on either side of the tail head with evident patchiness. Some fat around vulva and in crotch.

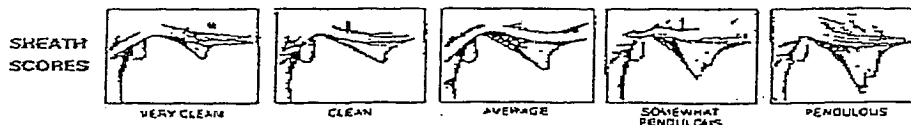
8=Fat - Cow is obese. Back is very square, animal is blocky in appearance. Brisket is distended with fat. There are large, protruding deposits of fat on pin bones, over the ribs, around the tailhead, and below vulva. Neck is thick. Between 1.2 and 1.6 inches of fat on last two to three ribs. There is a large indentation over spinal cord. Bone structure is not visible to the eye. Fat cover is thick and spongy.

9=Extremely Fat – Cow is very obese. The description of Score 8 is taken to extremes. Bone structure is not seen or easily felt. The tailhead is buried in fat. The cow is obviously extremely wasty and patchy with a definite block appearance. The animal's movement may be impaired by excess fat.

NAVEL SCORES



SHEATH SCORES



Importance of Pelvic Measurements

Many factors are associated with calving difficulty, including: small first-calf heifer; large fetus; male fetus; small pelvic size of dam; long gestation; heavy birth weight sire; dam too thin or too fat and abnormal fetal presentation at calving. Research indicates the major cause of dystocia is a disproportion between the calf size at birth (birth weight) and the cow's birth canal (pelvic area).

A high relationship has been found between a heifer's pelvic area and the birth weight of her calf. Selecting heifers with a large pelvic size, rather than by body weight alone, should be advantageous and should not increase calf birth weight.

In general, heifer weight and age have a positive relationship to pelvic area; but weight is not always a good indicator. Two heifers of equal weights can have considerably different pelvic areas.

External dimensions such as width of hooks and length of rump are not good indicators of pelvic area or calving difficulty. Neither are slope of rump and pelvis structure. Research shows that pelvic area has the most influence on dystocia of all cow measurements evaluated.

The best time for identifying heifers with a high potential for dystocia is before breeding. Pelvic area has been found to be the most reliable yearling trait indicating potential difficulty. Studies show that pelvic area growth is linear from six to 24 months in heifers calving at two years of age. Obtaining pelvic measurements on yearling heifers and culling those with small pelvic areas can reduce dystocia.

Pelvic Area and Calf Birth Weight Relationship

Research shows that calf birth weight in relation to the cow's pelvic area determines the degree of calving difficulty. Heifers with ratios of 2.1 or greater before breeding had little or no calving difficulty, while heifers with ratios of 1.9 or less required substantial assistance using a calf puller. These ratios are useful in predicting which heifers may require assistance delivering a certain size calf.

Pelvic measurements can be obtained on a heifer before breeding and the pelvic area divided by a ratio (factor) of 2.1 to estimate the calf birth weight the heifer can deliver as a two-year-old without having substantial difficulty. For example (*Table I*), a 600-pound yearling heifer with a pelvic area of 140 cm² should be able to deliver, as a 2-year-old, a 67-pound calf without difficulty ($140 \div 2.1 = 67$). Heifers with larger pelvic areas can deliver larger birth weight calves. However, a heifer with a smaller pelvic area such as 120 cm² probably would require a Caesarean to deliver a 75-pound calf ($120 \div 75 = 1.6$ ratio).

Pelvic measurements can be obtained at the time of pregnancy exam but the ratio (factor) of 2.7 should be used to estimate calf birth weight of 18- to 19-month-old, 800-pound heifers (*Table I*). If heifers vary considerably in weight at the time of obtaining the measurements, different ratios should be used. *Table II* shows the ratios (factors) to be used for various weights and ages of heifers.

Using Heifer Pelvic Measurements.

Research indicates that a normal 600-pound yearling heifer should have a pelvis at least 11 centimeters wide and 12 centimeters high to deliver a 63-pound calf. Heifers with a smaller width or height dimension should be considered for culling.

Pelvic measurements should be taken two to three weeks before the breeding season and can be incorporated into a total heifer management program. This program involves selecting heifers for breeding by size and type, obtaining pelvic measurements, palpating for ovarian and uterine

development (puberty), and vaccinating for reproductive diseases, all during one processing through the chute. Since the larger, heavier heifers do not always have the largest pelvic area, all heifers should be measured and mated according to pelvic size

Such a program helps ensure that a high percentage of the heifers are cycling and could become pregnant early in the breeding season, and should result in reduced incidences of dystocia. The program would also aid in an estrous synchronization and artificial insemination program by determining the percentage of heifers cycling, and assist in sire selection for reducing difficulty.

Table I. Using pelvic measurements to estimate deliverable calf size (birth weight).

Time of Measurement	Heifer Age, mo.	Heifer Wt, lb	Pelvic Area cm ²	Pelvic Area/ Birth Wt Ratio	Estimated Calf Birth Wt, lb
Before breeding	12-13	600	140	2.1	67
			160	2.1	76
			180	2.1	86
Pregnancy exam	18-19	800	180	2.7	67
			200	2.7	74
			220	2.7	82

Table II. Pelvic area/calf birth weight ratios for various heifer weights and ages to estimate deliverable calf birth weight.

Heifer Weight, lb	Age at measurement, months			
	8-9	12-13	18-19	22-23
500	1.7	2.0	—	—
600	1.8	2.1	—	—
700	1.9	2.2	2.6	—
800	—	2.3	2.7	3.1
900	—	2.4	2.8	3.2
1000	—	2.5	2.9	3.3
1100	—	—	—	3.4

NEBRASKA BEEF COW RECORD CARD

Cow ID _____ Breed/Color _____ Date of Sale or Removal _____
 Birth Date _____ Reg./Tat./Bang's No. _____ Reason _____ Sale Price _____
 Sire _____ Sire Breed _____ Sale Wt. _____
 Dam _____ Dam Breed _____
 Sire of Dam _____ Breed _____
 Vacc./Treatment or Remarks _____

Cow information

Date	Wt.	Body Cond.

Cow's Performance Data

Record	Birth Wt.	Wean Wt.	Mat. Milk	Year. Wt.	Year. Pelvic
Ratio					
EPD					
EPD					
EPD					
EPD					
EPD					
EPD					
EPD					
EPD					

COW PRODUCTION AND PROGENY RECORD

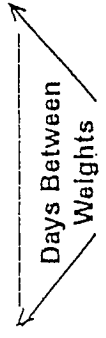
Cow Age	Bull ID/Breed	Calf Birth Date	Calf Birth Sex	CALVING		Act. Birth Wt.	Calv. Ease	Calving Interval	WEANING			Ratio
				Calf Birth Date	Sex				Actual Wt.	205 Adj. Wt.	Ratio	

REMARKS

NEBRASKA BEEF WEANING-YEARLING WORKSHEET

Sex _____ Weaning (Date Weighed) _____ Yearling (Date Weighed) _____

bulls, helpers, steers



Year	Calf ID	Sire ID	Dam ID	Age of Dam	Number In Group _____								Pelvic Measurement	Vert	Horiz	Total	Ratio	
					WEANING	WEANING				YEARLING								
					Calf Birth Date	Calf Age in Days at Wean.	Actual Wean Wt.	Birth Wt.	Daily Gain Birth to Wean.	205-day Age Adj. Wt.	Age of Dam Adj. Factor	205-day Adj. Wt.	Ratio	Actual Yrlg. (Final) Wt.	Daily Gain Wean to Yrlg.	365-day Adj. Wt.	Ratio	

(Continued on next side)

Herd Listing

Steers

Heifers

	Calf ID	Breed/Color	Est. Wt.		Calf ID	Breed/Color	Est. Wt.
1				1			
2				2			
3				3			
4				4			
5				5			
6				6			
7				7			
8				8			
9				9			
10				10			
11				11			
12				12			
13				13			
14				14			
15				15			
16				16			
17				17			
18				18			
19				19			
20				20			
21				21			
22				22			
23				23			
24				24			
25				25			
26				26			
27				27			
28				28			

Please choose one of your project animals and use the following checklist to evaluate it. If necessary, please add any other traits to the list.

Animal ID _____

Sex _____

General Appearance

- Well-Balanced
- Stylish
- Straight Top
- Structurally Correct
- Poorly Balanced
- Weak Top
- Structurally Incorrect
- Growthy

Frame

- Small
- Medium
- Large

Muscle

- Thick
- Narrow
- Smooth
- Shallow
- Loose
- Tight

Condition

- Clean
- Wasty
- Underconditioned
- Trim

Skeletal Structure

- Sound Feet and Legs
- Smooth Shoulder
- Coarse Shoulder
- Straight Shoulder
- Posty-Legged
- Sickle-Hocked
- Cow-Hocked
- Weak Pastern

Femininity (If Heifer)

- Long, Smooth, Trim Neck
- Smooth, Neat, Clean Shoulder
- Feminine Head
- Wasty, Coarse Brisket
- Coarse Head

Other

- Disposition
- _____
- _____

Quality Assurance Calf Health Record

Name: _____ Phone: _____
 Address: _____
 City: _____ State: _____ Zip: _____

All Vaccinations Must Be Administered In Specified Sites

Date	Treatment	Product	Company	Lot	Site of Admin.
	7-Way Clostridial				1. Neck
	H. somnus				
	* IBR PI, BVD				2. Neck
	BRSV				
	Leptospirosis				
	** Pasteurella				3. Neck
	Internal Parasites				
	External Parasites				
	Implant				

* Recommend calves under 5 months of age be vaccinated with a chemically-altered product agent IBR PI, due to interference from maternal antibodies. BVD vaccine must be a killed product

** Pasteurella vaccine needs to contain a leukotoxin component

Castration Method: _____ Creep YES _____ NO _____
 Dehorned YES _____ NO _____ Calving Interval _____ Date Weaned _____

Sire Data

Breed	EPDs	
	WW	YRWT

Description/Comments: _____

Processor: _____ Signed: _____

Pedigree Record

Calf ID Number	
Sex	
Breed	
Breeding Date	
Birth Date	
Actual or Estimated Birth Weight	
Calf's Tattoo/Brand and Location	
Calf's Name	
Birth Code*	
Management Code	
Horned/Polled/Scurred	
Breed of Dam	
Age of Dam	
Name of Dam	
Reg. # of Dam	
Breed of Sire	
Name of Sire	
Reg. # of Sire	
Date of Weaning	
Hip Height *	
Frame Score *	
Calf Weaning Score *	
Actual Weaning Weight	
Date Calf Started on Feed	
Weight of Calf Started on Feed	
Actual Yearling Weight	
Sex at Yearling	
Hip Height *	
Frame Score *	
Muscle Score *	
Pelvic Measurement	
Weight of Calf When Sold	
Sale Price	
* Please refer to reference pages	

