



Cornell University
Cooperative Extension
Oneida County



My 4-H Beef Project Record Book



Member Name: _____ Birth Date: _____

Street Address: _____

City, State, Zip: _____ Phone: _____

Name of Club: _____

Your 4-H Beef Project Record Book

Introduction

This Beef Project Record Book has been created specifically for 4-H members enrolled in the 4-H beef cattle project. Keeping a record book is an important part of the project. It will help you set goals for the project year, record your accomplishments, and provide a place to keep important records on your beef cattle.

What is a 4-H project?

A project is a subject or topic that you learn about in 4-H. In this case, your project is a beef cow, heifer, steer, or calf. You learn about your project by attending club meetings and educational workshops, and working with adult leaders and other 4-H members. You can also learn from field trips and by participating in shows and competitions.

Why complete a record book?

A record book is not meant to be a chore. Instead, it is a way for you to learn about your project, as well as other valuable skills such as setting goals, collecting information, evaluating information, tracking costs and expenses, organization, and others.

Completing your 4-H Beef Project Record Book.

At the beginning of the 4-H year, you should select one of your beef animals to be your 4-H project animal for the year. Then begin recording all of the relevant information on your animal in your record book on a monthly basis. It is important to keep your record book up to date, so that completing it doesn't become a chore at the end of the year.



Take a glance through the record book so that you can see how it's organized. As you can see, there are pages that pertain only to heifers, steers, and calves, and there are pages that pertain to mature cows, and there are pages that pertain to all of them (for example, feeding and health records). You only need to complete the pages relevant to your project animal. But you should complete all of the relevant information for the year. The only page that must be completed by all 4-Hers each and every year is page 4, the "Project Goals" and "Summary of Accomplishments."

The record book has been three-hole punched so that it may be easily kept in a 3-ring binder. Your 4-H beef records should be accumulative - meaning that you keep and add to your records from year to year, keeping them all in a 3-ring binder or portfolio. You can organize your notebook however you choose. Some 4-Hers may anticipate having the same project animal for more than one year. In this case you might choose to organize your notebook by project animal and will simply continue to add information and pages to your records for that animal over the years. Then when you change project animals, you

just start a new section in your notebook, with a new set of records for your new project animal.

Others may choose to organize their notebooks by year, with tabs dividing one year from the next. In this case, if you have a new project animal from year to year, then you will simply begin a new set of records for your new animal each year. If, however, you have the same project animal from year to year but you still want to organize your notebook by year, you can simply make a photocopy of your completed records from the previous year and then insert them into your notebook under the current year and add any new and updated information to them to bring your records up to date.

These are just a couple of examples of ways that you might organize and present your 4-H beef project records. But, remember - these are YOUR records and part of the goal for completing them is that you use your imagination and be creative in how you develop them. The idea is that at the completion of your 4-H career, you will have a compilation of records that shows your progression in your project from year to year.

Awards and Recognition

One of the goals of many 4-Hers is to earn a County Medal at the end of the 4-H year. In order to be eligible for a Beef County Medal, 4-Hers must meet the following criteria:

- Be enrolled in the 4-H beef project area for at least 2 years.
- Given a public presentation.
- Participated in 4-H County-wide fund raising.
- Submit a 4-H Projects Summary Booklet (Summarizes all of your 4-H experiences, not just your dairy project.)
- Submit up-to-date Beef Project Records. These are to be accumulative and progressive.

Each year, out of all the 4-Hers that receive a beef county medal, a *High Beef Medal of*

Honor will be awarded. The 4-H Livestock Committee will select this individual based upon the 4-Her's level of involvement and accomplishment in their beef project. This information will come from the 4-H Projects Summary Booklet, as well as the Beef Project Records.



***SO HAVE FUN AND ENJOY
LEARNING ABOUT YOUR 4-H BEEF
PROJECT!***

Project Goals (at start of project)

Year _____

** To be completed every year by all 4-Hers in the Beef project area*

This is my _____ year doing a 4-H Beef Project

State at least three goals at the beginning of your 4-H project year. Tell the things you want to learn from your 4-H beef project. Please discuss these goals with your parents and your 4-H leader.

<u>Example Goals:</u>	<input checked="" type="checkbox"/> Train a calf for show	<input checked="" type="checkbox"/> Learn how to prepare calf for show
	<input checked="" type="checkbox"/> Learn 15 parts of a beef cow	<input checked="" type="checkbox"/> Learn to care for a newborn calf
	<input checked="" type="checkbox"/> Learn how to judge beef cattle	<input checked="" type="checkbox"/> Participate in a Livestock Contest
		<input checked="" type="checkbox"/> Serve as a 4-H club officer

1. _____
2. _____
3. _____

Member Signature _____ Leader Signature _____

Summary of Accomplishments (when record book is due)

What goals have you accomplished? If you have not accomplished one or more of your goals, please explain. What have you learned? Describe your experiences this year. (Attach an additional page if needed.)

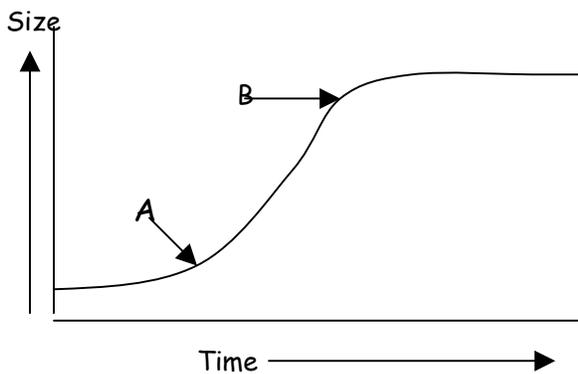
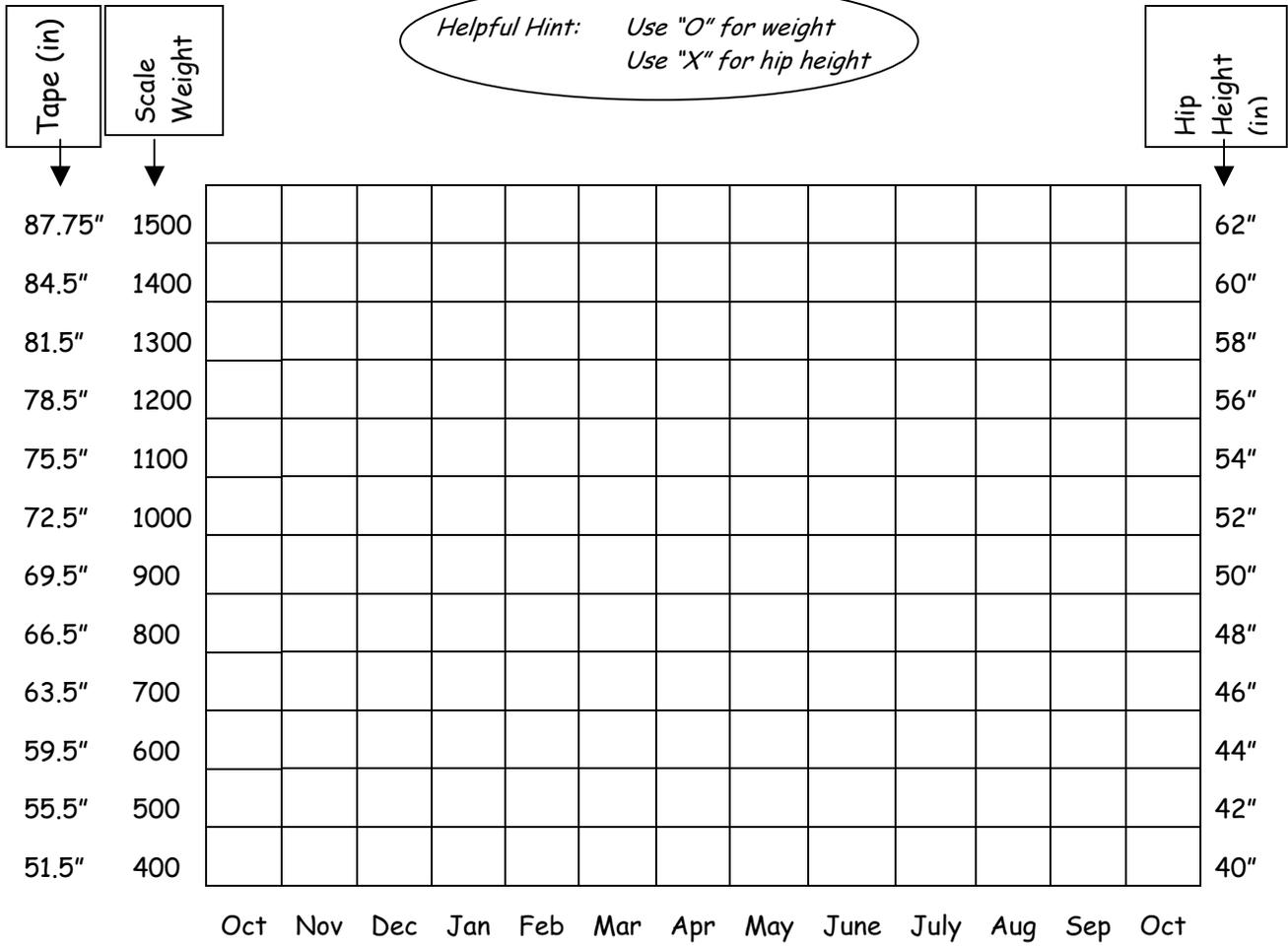
Member Signature _____ Leader Signature _____

Growth Measures

Animal Name/ID _____

Weight & Hip Height Chart

Each month record here the hip height and weight or tape measurement of your project animal.



If you were to continue your height graph for a two-year period, your graph might look like the one at the left. At point A, the animal has started to grow very quickly.

- What is happening at point B?

- At what point is your calf/heifer on the curve? _____

Growth Measures, continued

Breeding Weight - *If your heifer is already bred, you do not need to complete this section.*

A reasonable goal for beef heifers is to have them calve for the first time at 24 months of age. To do this, they must be of adequate size at breeding time (15 months).

- A heifer should reach 65 percent of her mature weight by breeding time and 85 percent at calving time. For British breeds (such as Angus and Hereford), this means 750 pounds to 800 pounds at breeding. For larger continental breeds (such as Charolais and Simmental), this means 850 pounds to 900 pounds at breeding. Heifer calves should achieve a certain rate of growth in order to be ready to breed at 15 months of age and calve for the first time at 24 months of age.

Let's see how your heifer is doing. **Record her weight and the date here:**

Date: _____ Her age: _____ Weight: _____
If scales are not available, a beef tape will serve as an adequate estimate.

How many pounds does your heifer need to gain from the time of weighing to breeding time to be adequate size?

What Average Daily Gain (ADG) is required to reach that target? _____

Hint: Average daily gain (ADG) = $\frac{\text{Gain}}{\text{Days in the feeding period}}$ Example: $\frac{600}{250} = 2.40 \text{ ADG}$

Is it reasonable to expect your heifer to achieve this ADG? Yes No

.....

Frame Score

Frame scores were developed to enable feedlot operators to better feed their cattle to the proper finish weight. Frame scores can be useful when their limitations are understood and taken into account. The difference in growth between animals often can be attributed to the difference in mature size the animals will attain if allowed to grow and develop. Mature skeletal size dictates to a high degree growth rate and performance. The USDA feeder cattle grading system is based on frame size combined with age and an estimation of the weight of the animal when it reaches the choice slaughter grade. Small frame animals (frame scores 1, 2, and 3) would reach this grade first, medium frame animals (frame scores 4 and 5) next, and large frame (frame scores 6 and 7) would take the longest. In general, the industry prefers medium frame animals, but there are circumstances where cattle of other sizes may be desirable.

Hip height can be measured easily and accurately and can be used to determine frame score. A hip height measurement is the distance from the ground to a point over the back directly over the hip bones (hooks) with the animal standing on a level surface. See illustration on the next page.

Let's see how your heifer is doing. Measure her hip height and record it here:

Hip height (in inches) _____

Now all you need to know is your heifer's age to determine her frame size. Use the appropriate column for your heifer's age and hip height in the table on the next page to determine her frame score.

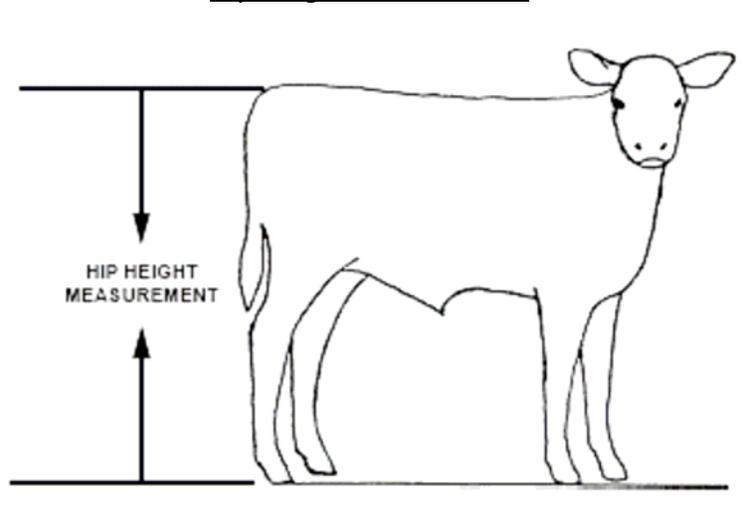
Record your heifer's frame score here:

Frame score: _____

Heifer Hip Height (inches) Frame Score

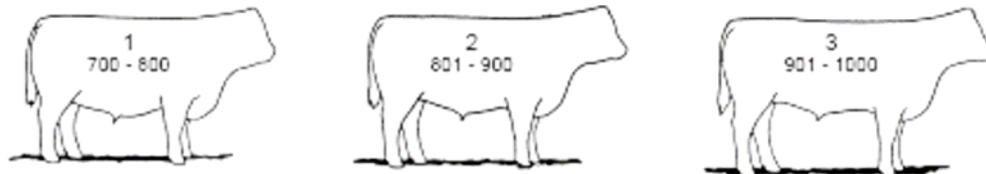
Age in Months	Frame Score								
	1	2	3	4	5	6	7	8	9
5	33.1	35.1	37.2	39.3	41.3	43.4	45.5	47.5	49.6
6	34.1	36.2	38.2	40.3	42.3	44.4	46.5	48.5	50.6
7	35.1	37.1	39.2	41.2	43.3	45.3	47.4	49.4	51.5
8	36.0	38.0	40.1	42.1	44.1	46.2	48.2	50.2	52.3
9	36.8	38.9	40.9	42.9	44.9	47.0	49.0	51.0	53.0
10	37.6	39.6	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

Hip Height Measurement



Choice weight related to frame size for heifers

Small (S)



Medium (M)



Large (L)



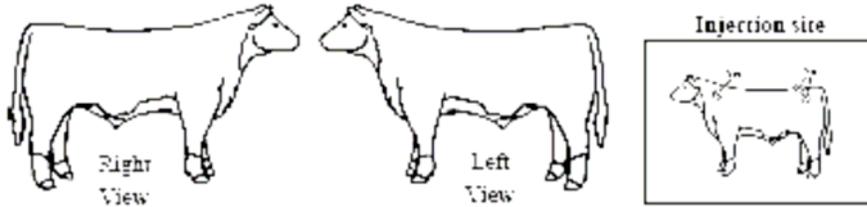
Is your heifer:

- Smaller than average (small frame)
- Average size (medium frame)
- Larger than average (large frame)

Preventative Health Care/Treatment Record

Animal Name/ID: _____

** Fill in the type of vaccination, medication and implant administered and chart the location on the calf.*



National Beef Quality Audit
 Injection-site blemishes are costly. Minimizing injection of material into the muscle must be considered. Injections should be administered in the neck and not in the areas of the more valuable, expensive cuts.

When possible, select subcutaneous (SQ) products. Never give injections in the rear or top butt. It is recommended one drug manufacturer be used for the entire vaccination program.

Procedure/Product	Pre-Vac	Booster	Lot or Serial #	Company	Date Given	Date Withdrawal	Route Admin.	Cost
7-Way Clostridial								
IBR, PI3, BVD, BRSV, Lepto 5								
Haemophilus somnus								
Pasteurella								
Internal/External Parasites								
Heifers Only								
Brucellosis								
Other Veterinary								

Total vet, medicine & treatment cost: \$ _____



Animal Name: _____

Year _____
(Started as project animal)

My Project Experience

- *Use this sheet to record what you do with your calf, heifer, or cow. Start another sheet if you change project animals.*

Describe how and from whom you obtained your project animal. Explain why you chose this particular animal.

Other than taking your animal to fair and shows, what other beef related activities have you been involved in?

YEAR	Beef Related Activities

Record of Fairs & Shows

Date	Name of Show	# In Class	Placing & Ribbon	Entry Fee	Premiums

Other Expenses

Animal Name/ID _____

** Record expenses other than feed and veterinary/health expenses below.*

	Equipment	Breeding Expenses	Bedding	Show/Grooming Supplies	Entry Fees	Trucking Fees	Merchandising/ Advertising	Other:	Other:	Total Cost
Year _____										
Cost:										
Year _____										
Cost:										
Year _____										
Cost:										
Year _____										
Cost:										



To determine what you are spending for your animal alone, you can take the cost for the entire herd and divide by the number of animals in the herd.
 e.g. Bedding: \$50/month for sawdust
 $\$50 \div 20 \text{ cows in herd} = \sim \$2.50 \text{ per cow/month} = \30 per year

Beef Cow Production Record

Keep one of these lifetime records for each mature producing cow.

Name or no. of cow _____ Breed _____ Reg. No. _____

Date born _____ Birth wt. _____ Weaning wt. _____ Weaning age in days _____ 205-day wt. _____ 365-day wt. _____

Calf no.	Breeding Record		Birth Record					Weaning Record				Yearling Record				
	Date(s) served		Breed & name or no. of sire	Birth date	Birth wt.	Sex	Calf I.D.	Date weaned	Age in days (1)	Wt.	205 day wt. (2)	Date	Wt.	Days since weaned	Daily gain (3)	Wt./day of age (4)
eg. 3	5/16/99	6/16/99	H. Adv. Dom. 24751	3/15/2000	70	F	6-1	10/1/00	200	460	470 14	3/15/2001	700	165	1.45	1.92 14

- (1) Age in days: March 15 to October 1 = 200 days
- (2) 205-day weight: (wt.) 460 lb - (birth wt.) 70 lb = 390 lb ÷ 200 days = 1.95 lb/day × 205 days = 400 lb + (birth wt.) 70 lb = 470 lb
- (3) Daily gain: (yearling wt.) 700 lb - (weaning wt.) 460 lb = 240 lbs ÷ (days since weaned) 165 = 1.45 lb/day
- (4) Wt./day of age: (wt.) 700 lb ÷ 365 days = 1.92 lb

Your calculations here:

