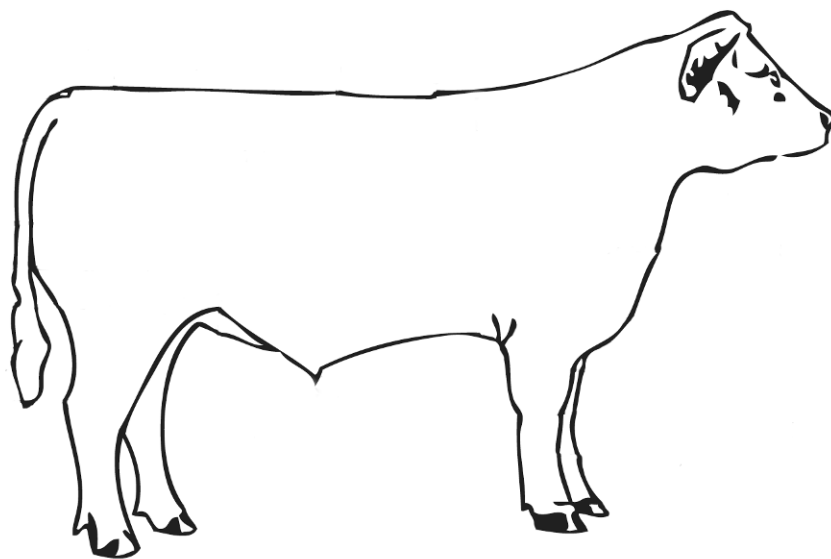


CANADA
4-H British Columbia

Beginner Beef Project

Unit 1

Record Book



Publication #416
Version December 2015

The 4-H Motto

"Learn to Do by Doing"

The 4-H Pledge

*I pledge
My Head to clearer thinking
My Heart to greater loyalty,
My Hands to larger service,
My Health to better living,
For my club, my community, and my country.*

The 4-H Grace

(Tune of Auld Lang Syne)

*We thank thee, Lord, for blessings great
on this, our own fair land.
Teach us to serve thee joyfully,
with head, heart, health and hand.*



Permission to reproduce this material in whole or in part must be obtained in writing from the 4-H British Columbia (4-H BC) Provincial Council.

Table of Contents

The Creed of the 4-H Stock Keeper	1
About Your Record Book	2
About Me and My Club	3
Beef Sense: Safety for both you and the Animal	5
Beef Breeds	6
Selecting a 4-H Project	7
Parts of the Beef Animal	10
Selecting Is Really Judging.....	12
Beef Equipment	13
Release It!.....	14
Digestive System	15
Nutrient Requirements of Beef.....	17
Basic Feeding Practices	19
Beef Facilities	20
The Creed of the 4-H Stockkeeper	21
For More Information	23
Cost of Buying and Owning a Beef Animal	24
Bill of Sale.....	25
Meeting Record	26
My Beginner Beef Project Photo Album.....	28
My Beginner Beef Project Year Summary	29
Achievement Requirements.....	30

Instructions for the Electronic Record Book

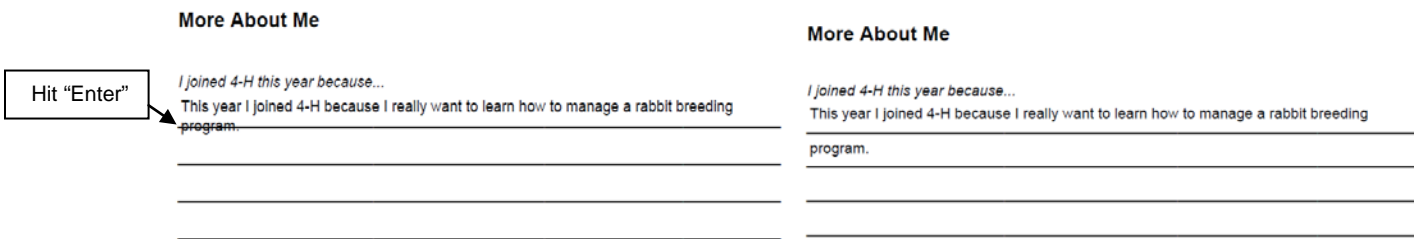
Each 4-H BC record book publication has been converted to allow for electronic data entry. This will allow for changes to be made and saved on your computer. It is also a way to create extra pages when needed.

To use:

- All files are pdf form. The book is to be filled in electronically and then printed.
- Where there is a light-blue section, you will be allowed to fill in the required information. Some sections will also have check boxes.
- All typing is in 12 point Helvetica font
- To move wording in the box, use the space bar to adjust location.
- You cannot exceed the writing space of the box otherwise it will not print correctly.



- For multi-line answers, type until the second line and then hit enter. This will line up the writing with the pre-determined spaces.



Additional Notes

- After the file is printed, complete your record book by doing the following:
 - Complete sketches or drawings as required
 - Attach photographs to the document
 - Get handwritten signatures on pages that require it.

The Creed of the 4-H Stock Keeper

I will:

1. Learn as much as possible about the best methods of feeding and caring for beef.
2. Be kind to animals.
3. Always be a good sport in competition.
4. Complete my project and take part in all the activities of my 4-H club each year.

I have read and agree to abide by this creed.

Your Signature _____ Date _____



4-H AWARE Program

Your leader should review the 4-H AWARE program. AWARE is Animal Welfare, Animal Rights Education and being a beef 4-H member, this is an important topic. Beginning to learn about animal care and welfare topics while you are in Unit A will help you when you have a beef project.

About Your Record Book

This is your personal 4-H Record Book for the year. In it, you may keep a record of anything you do at your club meetings, at district or regional events, or at home which is related to the 4-H BC Beef project. You may find the record book more useful if you undo the staples and place all the pages in a loose-leaf binder. This way, you may add more pages as you need them, or change the order of the sections to suit your club schedule.

This record book is part of your “4-H Achievement” requirement. You will be required to complete it and hand it in at the end of the year. Ask your leader for the date your book must be handed in. Be sure all sections you have covered throughout the year are completed as well as they can be.

Have fun with your “Beginner Beef” project. Although it may seem like a lot of work, your record book can be a valuable reference for you to look back on, and good practice for the day when you own (and keep records on) your own beef.

About Me and My Club

About Me

My name _____

Address _____

My age at January 1st this year _____

This is my _____ year in 4-H

About My Club

Club Name _____

Number of members _____

This club has been operating for _____ years.

Name

Phone Number

Club Leader(s):

_____	_____
_____	_____
_____	_____
_____	_____

Club Executive:

President _____

Vice President _____

Secretary _____

Treasurer _____

Press Reporter _____

Safety Officer _____

More About Me

I joined 4-H this year because...

This year in 4-H, I hope to accomplish...

This year I will contribute to my club by...

Beef Sense: Safety for both you and the Animal

Although we tend to think of 4-H animals as pets, they are also very large and can be dangerous if not treated with respect. Even accidents, such as an animal stepping on your toes, can be painful, but with care, they can be prevented. From the discussion in your club, write some notes about safety around beef animals. List 5 things you should always be careful of when working with cattle:

1. _____
2. _____
3. _____
4. _____
5. _____

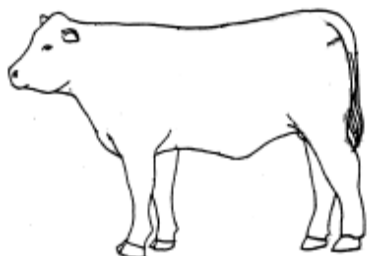
Don't forget about the animal's safety. If we are careless, our animal could have an accident causing injury or death. List 5 things which could cause injury to an animal if not looked after:

1. _____
2. _____
3. _____
4. _____
5. _____

Please note: Make a poster on beef animal safety. If it is small enough, add it to your record book. Otherwise, you may wish to take a picture of it to glue into the book.

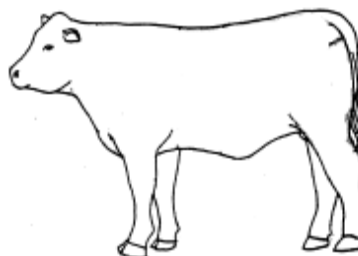
Beef Breeds

On each of the photos below, write the name of a beef breed and colour in the beef outline to show breed characteristics and colours.

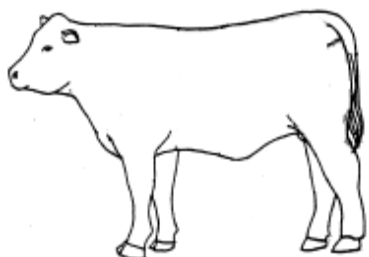


Breed: _____

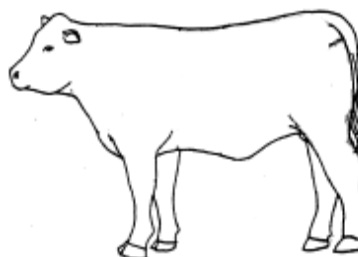
Breed: _____



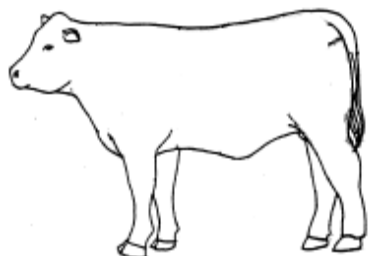
Breed: _____



Breed: _____



Breed: _____



Selecting a 4-H Project

It is important for 4-H members to become familiar with the different things they should consider when choosing their projects. There are many choices of beef breeds or combinations of breeds available for the beef project. In this section, you will be encouraged to become familiar with the other characteristics to look for when selecting beef projects, learn more about where to buy an animal, and develop a selection plan for selection of your own project for the next year.

- a) Read the section in the Beef Project Manual relating to “Selecting Your Project Animal”. With the knowledge you have gained, choose at least 3 different club members to question as to how and why they chose the projects they did. See the following page for the questionnaire.
- b) Make your own project selection plan (see page 9).

Selecting Your Project Animal Questionnaire

Questionnaire: How and why did you choose your project beef animal?

1) Name of member _____ Age _____

Years in 4-H _____ Project _____

Breed _____

Purchased from breeder, private sale, auction, or leased? _____

Why did they choose the beef and project they did?

2) Name of member _____ Age _____

Years in 4-H _____ Project _____

Breed _____

Purchased from breeder, private sale, auction, or leased? _____

Why did they choose the beef and project they did?

3) Name of member _____ Age _____

Years in 4-H _____ Project _____

Breed _____

Purchased from breeder, private sale, auction, or leased? _____

Why did they choose the beef and project they did?

My Project Selection Plan

Create a project selection plan based on the information you have read in the Beef Project Manual and from the questionnaire.

The breed I am considering is: _____

I am interested in this breed because:

I plan to get my animal from:

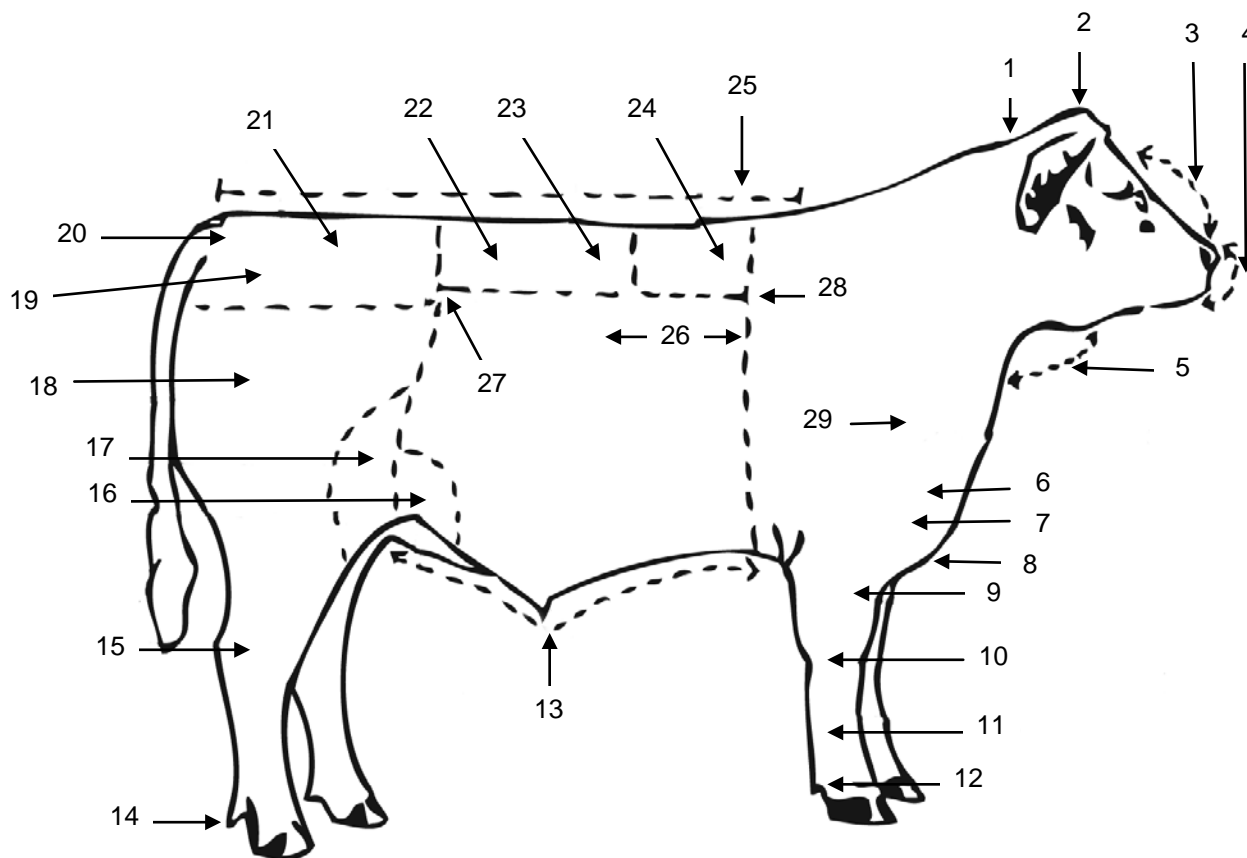
- Breeder
- Private sale
- Auction
- Leased
- Homegrown
- Other (please specify): _____

The approximate cost of purchasing or leasing an animal: _____

Parts of the Beef Animal

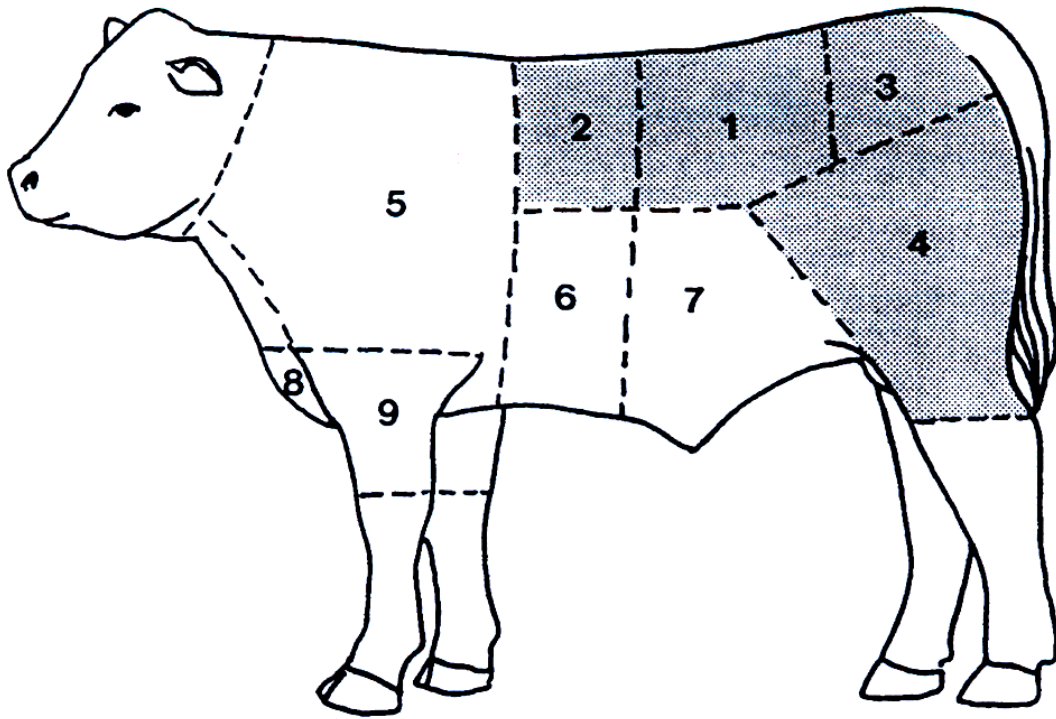
Identify the following beef animal parts.

- | | | |
|-----------|-----------|-----------|
| 1. _____ | 11. _____ | 21. _____ |
| 2. _____ | 12. _____ | 22. _____ |
| 3. _____ | 13. _____ | 23. _____ |
| 4. _____ | 14. _____ | 24. _____ |
| 5. _____ | 15. _____ | 25. _____ |
| 6. _____ | 16. _____ | 26. _____ |
| 7. _____ | 17. _____ | 27. _____ |
| 8. _____ | 18. _____ | 28. _____ |
| 9. _____ | 19. _____ | 29. _____ |
| 10. _____ | 20. _____ | |



Identify the following meat cut areas from the diagram below:

- | | | | |
|----|-------|----|-------|
| 1. | _____ | 6. | _____ |
| 2. | _____ | 7. | _____ |
| 3. | _____ | 8. | _____ |
| 4. | _____ | 9. | _____ |
| 5. | _____ | | |



Selecting Is Really Judging

By now you will have formed an idea of what kind of beef you would like to undertake as a project next year, what breed and where you will obtain it from. You are ready to choose a beef animal. Choosing your beef animal will be your first practice with judging. Judging is evaluating and comparing in order to select the most desirable animal from a group. In order to be successful at this, one must learn the names of the various parts of the beef.

For guidance, refer to the Livestock Judging Guide, 4-H BC publication 427. Another resource that is helpful for learning and practicing judging skills is the Interactive Livestock Judging page on the 4-H BC website (<http://www.bc4h.bc.ca/resources/quizzes>).

List seven steps to follow when judging a class or selecting a beef animal from a group:

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____

Release It!

What is a quick release knot and why is it important?

Learn about how to tie a quick release knot. Follow the diagrams below and ask a senior member or 4-H leader for help.



Step 1
Pass the tail end over the rope and around overtop to form a loop.



Step 2
Fold the tail end and insert the doubled-up end through the loop.



Step 3
Tighten the knot to make it snug. To release, simply pull on the rope end.



Step 4 (optional)
Tuck the tail end of the rope through the loop.

Think about the quick release knot and how you would use it. Now, find a word which starts with each letter of "RELEASE" and put it in the blank beside the letter. Use any word or phrase you can think of – about your steer or heifer, training to lead and using the quick release knot.

R	_____
E	_____
L	_____
E	_____
A	_____
S	_____
E	_____

Digestive System

The purpose of this section is for you to discover and understand what is different about the digestive system of cattle compared to a human being's.

Read the section in your Beef Project Manual titled "Digestion in the Beef Animal". If you do not understand it, please ask a parent, senior member, or your leader to go over it with you.

A. Answer the following questions:

1) What is digestion?

2) What is the digestive system?

3) What is a "ruminant" animal?

Example: _____

4) How is the cattle digestive system different from a human's?

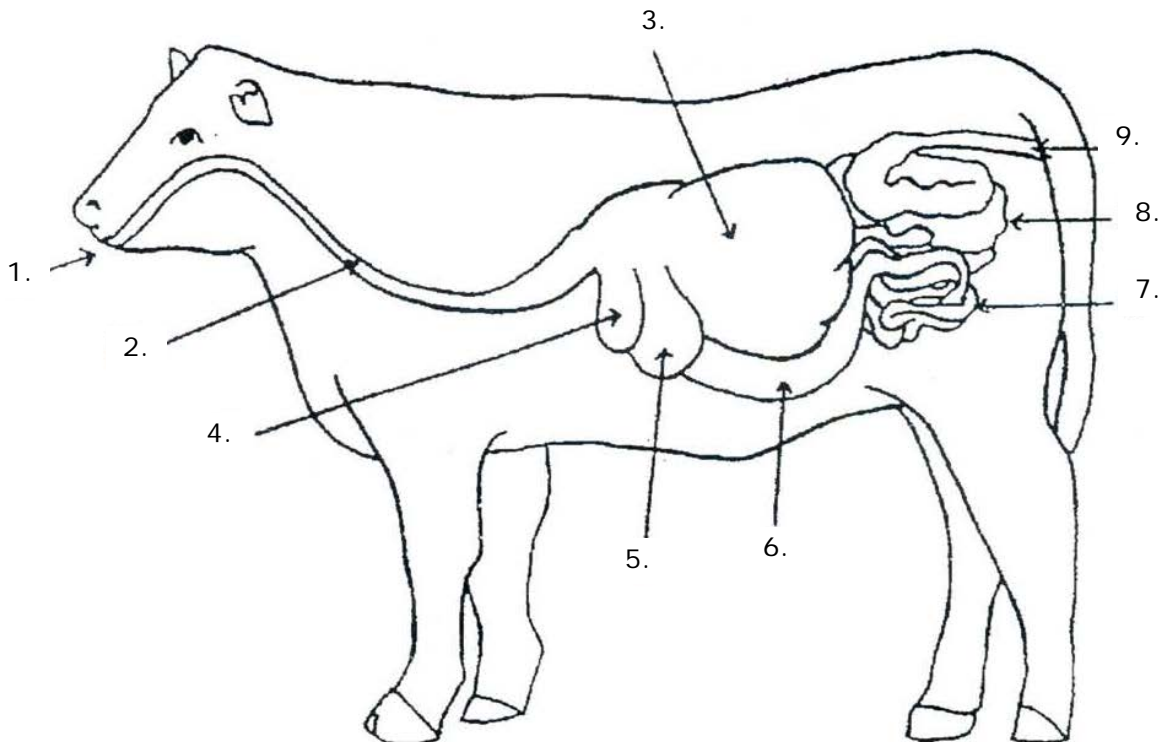
More About The Beef Digestive System

B. In the picture below, follow the path the food takes through the digestive system of a beef animal. Draw arrows to show the direction the food material moves through the digestive system.

Remember that once this food reaches the stomach, it begins to look very different. This is only one of the things which happens during digestion!

C. On the picture below, label all of the parts of the beef digestive system.

- | | | |
|----------|----------|----------|
| 1. _____ | 4. _____ | 7. _____ |
| 2. _____ | 5. _____ | 8. _____ |
| 3. _____ | 6. _____ | 9. _____ |



Nutrient Requirements of Beef

You have learned that a beef animal's digestive system is quite different than a human being's. With this knowledge, you can now understand why cattle eat different food than we do. Let's find out what nutritional requirements they have and how they get them.

Please read the section in your Beef Project Manual titled, "Nutrient Requirements of Beef".

A. Answer the following questions.

1) What is a nutrient?

2) What 4 things are nutrients needed for?

a) _____ b) _____

c) _____ d) _____

3) There are 5 essential nutrients the beef animal needs in its diet. What are they and what purpose do they serve in the animal's body?

a) _____

Purpose: _____

b) _____

Purpose: _____

c) _____

Purpose: _____

d) _____

Purpose: _____

e) _____

Purpose: _____

A beef animal relies on its diet to provide the necessary nutrition it needs. A diet is the mixture or combination of feeds which provide the necessary nutrient requirements. The diet you feed your animal contains those nutrients which keep your animal healthy, growing, producing and reproducing.

Please read the chapter in your Beef Project Manual titled "Feeds for Beef".

B. Your animal's diet will be made up of 3 main feed types. List them and give examples of each.

1) _____

Examples: _____

2) _____

Examples: _____

3) _____

Examples: _____

C. When raising a 4-H beef project, you will need to purchase your feed and maintain a record of your costs. Research and record what it would cost you to purchase the following feed at this date.

Good quality grass/alfalfa hay

Silage (corn or grass/alfalfa)

Straw

Grain

Protein supplement

Salt

Basic Feeding Practices

Work with a senior member in your club to discover how much a beef heifer or steer eats. It may help to refer to their previous year's record book for guidance.

In preparing for looking after a beef animal next year, estimate the cost of feeding it. Calculate your feed costs based on a feeding period of 365 days. The amount of grain/hay fed will be less if you have good pasture available.

i) How much hay will an average animal eat in one day? _____ (kg)

ii) Multiply this number by 160 days to find out how much hay an animal will eat each winter.

(Multiply by 365 if your beef will not be pastured out) _____ (kg)

iii) How much grain will an average animal eat in one day? _____ (kg)

iv) Multiply this number by 160 days to find out how much grain an animal will eat each winter.

(Multiply by 365 if your animal will not be pastured out) _____ (kg)

v) Ask your parents to help you figure out how much it will cost to feed your animal hay: Multiply the total amount of hay (kg) by the price per kg of hay in your area.

HAY _____ (kg) X PRICE _____ (\$/kg) = \$ _____

vi) Your animal will also require grass for the summer, unless you plan to keep it indoors and feed it hay all year round. If you can, figure out how much it will cost to pasture your animal (usually charged by the month).

\$ _____

vii) If you plan to supplement your animal's diet with grains or pellets, ask your leader to help you calculate the cost for one year.

GRAIN _____ (kg) X PRICE _____ (\$/kg) = \$ _____

TOTAL COST OF FEEDING A BEEF ANIMAL FOR ONE YEAR: \$ _____

NOTE: This number does not include any cost other than for the feed itself. Additional mineral or vitamin mixtures may raise this cost.

Beef Facilities

A person does not need a “fancy” barn and corral system before they can own a beef animal but it is very important that they have “adequate” facilities. Proper facilities make it safer and easier to look after your project properly.

Read through the section in your Beef Project Manual titled, “Beef Cattle Handling Facilities”. It is probably a good idea to have a parent go through this chapter with you, as it will be a benefit for them to understand what facilities are needed as well.

- A.** Draw or paste cut-out picture, or describe in writing, the different kinds of places a beef animal can be kept. What are the most important things to think of when deciding on a home for your animal?
- B.** If you owned a beef animal, where would it be kept? On your property? At a neighbour’s farm? If you can, draw a sketch of what your animal’s home would look like. Show where your animal would go to get water, where it would be fed, and how far away it would be from your house.

The Creed of the 4-H Stockkeeper

In the previous sections you have prepared for ownership of a 4-H beef project. Each of your fellow club members who has an animal has the “Creed of the 4-H Stockkeeper” at the front of their record book, but it is a shorter version than what is below. Read each part of the creed and discuss the creed with your club members, leaders and parents.

I will:

- Provide comfortable and sufficient quarters for my livestock.** I will house my animal with enough space to prevent crowding and fighting. When I tie my animal, I will make sure the rope is not too tight and that there is nothing nearby that could harm the animal. This also means that I will help to prevent my animal from being too hot or too cold. Temperature control is also important during transport.

This is important because: _____

- Strive to improve the breeding and quality of my livestock, and the livestock in my community, from year to year.** The more structurally sound, efficient and productive our animals are, the less stress will be placed on our animals to produce what consumers want.

This is important because: _____

- Keep my animals free from parasites.** Keeping animals free from injury and disease is very important to their well-being. By keeping the animals’ bedding fresh, clean and ensuring that the eating area of the animal is sanitary I can help protect the health of my animal. This also includes providing vaccinations and medications as required by the animal.

This is important because: _____

- Strive to keep my livestock in good health.** To ensure the good health of my project animal, I will observe it carefully every day, to see that it is eating and behaving normally. If my animal ever looks or seems unhealthy, I will see that it receives immediate attention and will keep accurate and complete records of any health problems that occur.

This is important because: _____

- Feed my livestock on time each day.** This means that I will make sure that I can afford to feed my animals the right amount and the right kind of feed on a regular schedule. This will provide the nutrition my animal needs and ensure the daily comfort of my animal.

This is important because: _____

- Learn as much as possible about the best methods of feeding and caring for livestock.** By learning about methods of raising livestock, my animals will benefit from new strategies that help to ensure that my animals receive the best possible care. I can explore new animal husbandry ideas through reading, asking questions and participating in 4-H activities.
This is important because: _____

- Be kind to animals.** I will not take my frustrations out on animals. I will be patient while training my animal and never use training devices to hurt an animal.
This is important because: _____

- Provide animals with clean water at all times.** All animals need water to survive. Every day I will check the water supply for my animal to ensure that it is clean and that the waterer is working properly.
This is important because: _____

- Always be a good sport in competition.** Livestock shows and Achievement Days are one way that the public can see how important proper care of our animals is to us. Good manners and a courteous disposition go a long way in presenting a good impression to the public. Never take your frustrations out on your animal.
This is important because: _____

- Keep an accurate record of my projects.** Keeping accurate records will ensure my animal is maintaining proper health, growth and development. Completing accurate records of vaccinations and treatments prevent residues in the food products I am supplying to the public.
This is important because: _____

- Complete my project and take part in all activities in my 4-H club each year.** 4-H is a place of learning. By taking part in all the activities and completing the project each year, I am allowing myself to learn and experience all that I can about my project. This will help me to improve my understanding of animals and my methods of caring for them.
This is important because: _____

For More Information

You have learned a lot about beef animals and the 4-H BC Beef project. Once you have decided you want to move to the next step and have a beef project animal, you have some options. You can:

- Lease land and/or a pen to keep your beef animal if you do not have property at home. Ask your 4-H leader about the 4-H Land and/or Stall Space Lease (4-H BC publication 140-F).
- Lease a beef animal instead of buying one (if planning a heifer/non-market beef project). For this option, ask your 4-H leader about the 4-H Livestock Lease (4-H BC publication 140-E).
- Buy a beef animal. The following page will help you to learn about the cost of buying and owning a beef animal.

Cost of Buying and Owning a Beef Animal

Starting Costs:

Price of beef animal (from pg 9):

\$

Cost of equipment:
(refer to Beef Equipment, pg 13)

Pitchfork +

Water Tub +

Feed Tub +

Rope Halter +

Brushes +

Combs +

Show Halter +

Show Stick +

Other? +

TOTAL STARTING COSTS

= (A)

Yearly Costs

Housing costs: this may be very low (e.g. electricity costs only) if you have a barn already. If you are renting space, write down the cost for a full year.

\$ (B)

Feed: use the number you calculated on the “Basic Feeding Practices” page earlier this year to determine how much it would cost you to feed an animal for a year. Costs will depend on how much grain you intend to feed, and the availability of pasture.

\$ (C)

Veterinary costs (vaccinations and deworming):

\$ (D)

GRAND TOTAL (Add lines A, B, C and D)

=

Bill of Sale

This is a sample Bill of Sale which you may use to protect you, as a cattle buyer. If the animal is registered, make sure the appropriate transfer papers are completed correctly.

I, _____, have sold the animal described below
(seller)
to _____ at _____
(buyer) (location)
on _____.
(date)

Description of the Beef Animal:

Breed _____

Colour & Special Markings _____

Sex & Age _____

Brands _____

Canadian Cattle Identification Agency (CCIA) tag # _____

Additional terms or conditions of sale as outlined below:

Payment in full received in the amount of \$ _____.

Signature of Seller

Note: You should take a copy of this form when buying a beef animal in case the seller does not have one. Be sure to keep your copy in a safe place.

Meeting Record

It is important to always keep track of meetings, field trips and activities you participate in and learn from your experiences. This record will help you keep track of the activities you took part in as a club member:

Date	Place	We learned about...

My Beginner Beef Project Photo Album

Be Creative. The more photographs, the better! You are encouraged to be in the photo doing your beef activities. You should also include captions on your pictures that at least include the date of the photograph. You may use additional pages.

My Beginner Beef Project Year Summary

What I learned this year

This section is to be completed at the end of the 4-H year. It is meant to help you look back on all that you have learned during the past year. Look back on the goals you set for yourself at the beginning of the year. How well did you meet those goals?

How did you improve or learn the skills you wanted to learn?

How did you accomplish the goals you set for yourself?

What new activities did you try?

In what way did you help or teach others?

Achievement Requirements

1. Complete Unit 1 record book
2. Participate in the 4-H program
3. Complete 8 of the following activities:

	Date Completed	Leader's Initials
1) Read a beef magazine. Report to meeting.	_____	_____
2) Name the parts of the beef animal.	_____	_____
3) Attend a beef show. Report back.	_____	_____
4) Attend a beef sale. Report back.	_____	_____
5) Visit a beef farm.	_____	_____
6) Visit a veterinarian.	_____	_____
7) Observe a hoof trimmer at work.	_____	_____
8) Watch a senior member clip their animal.	_____	_____
9) Watch a fitting demonstration or competition.	_____	_____
10) Visit a feed store.	_____	_____
11) Groom a beef animal.	_____	_____
12) Demonstrate how to halter and tie an animal.	_____	_____
13) Lead a beef animal.	_____	_____
14) Make a poster about beef cattle.	_____	_____
15) Make a beef safety poster (see pg 5).	_____	_____
16) Other.	_____	_____

Note: Leader and members may identify other activities as achievement requirements, depending on the club's plans for the year.



CANADA
4-H British Columbia

4-H British Columbia Provincial Council

2743 – 30th Street

Vernon, BC V1T 5C6

Toll Free: 1-866-776-0373

Website: www.bc4h.bc.ca