Member and Leader Manual

This project is for 4-H members who are 10 to 11 years old. Members can select a market animal, a heifer or a continuation heifer for their project animal. Members will learn more about selecting, caring for, handling and housing their animal. Other topics will include carcass evaluation, judging, animal welfare, and marketing.

- Draft 2017 -
What Skills Will You Learn?

To complete this project, members must:
- Spend a minimum of 15 - 20 hours completing the project work.
- Complete the listed activities, OR a similar activity that focuses on the same skills, as you and your members may plan other activities.
- Plan and complete the Showcase Challenge
- Complete the Portfolio Page.
- Participate in your club’s Achievement (see the inside back cover for more information about 4-H Achievement).

Achievement (project completion) requirements for 4-H Manitoba apply to this project and are described above. The amount of time spent on project work may exceed the minimum 15 hours, depending on the project that you have chosen and the activities within the project.

This project was selected to be offered by 4-H Manitoba because it provides members with the opportunity to meet Manitoba 4-H project learning objectives. These objectives include technical skills, communication, meeting management, leadership skills, as well as community involvement and real world experiences.

The project manual is a combined resource book, work book and animal record book. It provides material on a variety of topics related to raising beef.
Leader’s Information Page

4-H leader assessment of members will occur throughout the project as you observe the progress and learning of each member. Record what you see and hear. Your feedback should be positive and specific (not just “well done”). Share feedback with members often so they can act on your suggestions. How you choose to observe and record is up to you. Remember that members may improve throughout the project year and that records should be updated to reflect when they showed their best learning.

Projects promote technical, communication, meeting management, and leadership skills, as well as community involvement and real-world experiences. In addition to the specific skills members are to learn in each activity, these learning goals for members are important:

- Following instructions
- Working with others
- Using supplies safely
- Using the key words
- Improving with practice
- Respecting timelines.

4-H LEADER TIPS FOR SUCCESS!

- Depending on time available, group size and member abilities, you may wish to break the activities in each section into more than one project meeting.

- The internet has lots of interesting websites and educational activities. We do not endorse any website or any products they may sell. Information/products will be used at your own discretion.

- Safety is a number one priority. Care has been taken to create safe, age appropriate activities throughout this manual. As leaders, it is important for you to emphasize safety rules and adapt activities to safely match your members’ abilities. Ensure members have a good understanding of safe practices when using tools, that they use the right safety equipment when necessary, and that good supervision is provided. A quality experience needs to be a safe experience.

- The multiple intelligences theory teaches us that people learn in at least 8 different ways. All individuals will be stronger in some ways of “intelligences” and weaker in others. It follows that the more ways we teach, the more members we will reach. Throughout this project, you will find a mix of teaching and learning methods. Teaching projects using a broad blend will help increase the learning potential of all members.

- Projects are designed to teach many skills, but the 4-H member is always more important than the subject matter. Stress cooperation in the activities to develop teamwork and cooperation skills. These are valuable life skills. Ensure the work is completed in a manner that members feel good about themselves and their efforts. This can be done by assigning tasks based on member’s individual abilities. Modelling and expecting supportive behaviour (i.e. no “put-downs”) in the group also contributes to a positive experience.

- There will be opportunity for experimentation and applying skills that members have learned throughout this project. Experimenting can be frustrating, but learning through trial and error is an important life skill. Explain to members that it is alright to either go on to the next activity or do the activity again if they need the practice. Help the members work through their challenges until they are satisfied with the final results. Creating inventive 4-H members will be very rewarding.

- Celebrating success is an important but sometimes overlooked part of our lives. We encourage you to use the final section to empower the members by celebrating all they have learned in a fun manner. Anything that you do to add to the spirit of fun and the sense of accomplishment of each member will likely be remembered as the highlight of their 4-H year.

Have fun and thanks for your belief in young people!
Showcase Challenge and My Portfolio Page

Showcase Challenge

The “Showcase Challenge” page gets members to think about their accomplishments and explain or demonstrate how they were successful. There is information to help them decide how they will best “Showcase” their learning to family and friends. Have members use their Member Manual to help them in organizing what they have learned. The form of the showcase can vary according to the wishes of the members and leaders, and the member’s ability. Information could be presented in many forms, some of which are: posters, pamphlets, written reports, speeches, computer presentations displays, etc. Suggestions are listed on the Showcase Challenge page at the back of the Member Manual. The best results are almost always obtained when members are allowed to present their information in the style of their choice.

Portfolio Page

Record Keeping is an important part of every 4-H project. “My Portfolio Page” is used to keep track of members’ 4-H experiences. As each member learns skills this is recorded on the portfolio page. When the Portfolio Page has been completed and confirmed by the leader, then it becomes a record of the member’s completion of the project and participation in other 4-H activities beyond the project.

As a final exercise in the project, members and leaders will pull together all this learning in completing the Portfolio Page in the Member Manual. Members and leaders must indicate how they know the member was successful at a particular skill. Leaders will find evidence if they think about what they have observed members doing, what discussions they have had with members, and what the members have produced. If leaders think that members need to go back and improve on any skill, this chart helps them clarify what needs to be done.
Unit 4

Quality Beef From a Quality 4-H Project

Member’s Manual
Printed 2007

Manitoba Agriculture, Food and Rural Initiatives
www.gov.mb.ca/agriculture/
4-H Motto
Learn to do by doing

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

4-H QUALITY EQUATION PRINCIPLES

Quality People
Promote responsibility, respect, trust, honesty, fairness, sportsmanship, citizenship, teamwork and caring.

Quality Experiences
Provide members with personal development and skill development experiences.

Quality Projects
Promote and value quality effort.
Promote high quality, safe food production within industry standards.

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<td>132</td>
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<tr>
<td>Answer Page</td>
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QUALITY BEEF FROM A QUALITY 4-H PROJECT

We gratefully acknowledge the support of

Manitoba Agriculture, Food and Rural Initiatives

Agriculture and Agri-Food Canada.

Front cover photo taken by Bonnie Snezyk
PROJECT COMPLETION REQUIREMENTS

FOR COMPLETION OF THIS PROJECT, EACH MEMBER MUST:

- Complete and display the “My 4-H Record” form at achievement.

- Complete all the exercises and activities in your project book that display the "Hamburger" icon. 21, 22, 23, 24, 25, 26, 27, 29, 40, 44, 52, 53, 54, 55, 60, 61, 62, 67, 78, 83, 121, 122, 128, 130.

- The project that information or exercises are intended for will be in bold type and underlined at the top of each page. (Market Animal, Heifer, Continuation Heifer, or All Projects)

- Display your project book at your Achievement.

- Display your 4-H project calf at your Achievement.

- If you are taking more than one project animal you will need a book for each animal. However you need only do the exercises specific to your second or third animal etc. General exercises such as those found in facilities just need to be completed in one book.

INTRODUCTION TO QUALITY BEEF FROM A QUALITY 4-H PROJECT

In the Unit 4 Project you will learn about:

- Selecting, feeding, caring for, and housing a beef calf.
- Handling, training, grooming, and showing.
- Judging and Carcass Evaluation.

IDEAS FOR ACHIEVEMENT:

- The Traditional 4-H Show, a Farm to Farm Achievement, a Skillathon Achievement, and an In the Pen Achievement. See pages 6 - 15 for more details.

BEEF TALK:

- The meaning of any words that are underlined and in italics can be found in the “Beef Talk” section at the back of your project book.

When you see the “Safe farms” icon and the information in a box you will know that this is a safety point or tip.
LEADERS/PARENT PAGE

This book is for members who are eleven years old. It is written at a level that most eleven year olds will be able to read. If you are a first time member, you might want to complete Units 1, 2, and 3 before beginning Unit 4.

The books are a combination of manual, workbook, and record book. Members should be able to read and do most of the exercises on their own.

There are five main sections in all units of the books. They are Selection, Health, Nutrition, Facilities, and Handling. The title pages for each section are in the same format in all units. Hopefully this will be helpful when you are at a meeting and working with members who have different books. For example: they may all be working on slightly different material, but they will all be working in the Nutrition Section. As the units progress there will be some different sections added, and some deleted.

The ACTIVITIES at the end of each section are optional. Most require a minimum of preparation and resources. They can be completed in less than 30 minutes. Some are as short as 10 minutes. Hopefully they will offer leaders some new ideas for presenting and reviewing the material studied in the section. Each unit has different activities, so you can choose the ones you think are most suited to your group. Some of these activities can be done by an individual member on their own.

Take time to read over the Project Completion Requirements and Project Information with your members. Remind them that any exercise displaying the Hamburger icon has to be completed. The meanings of words that are Bold, Underlined, and in Italics throughout the manual can be found in the Beef Talk section at the back of the book. There is also an answer key for the quizzes at the back.
IDEAS FOR ACHIEVEMENT

The 4-H Cattle Show has been the traditional achievement for the beef project for many years. The following are some ideas that could coincide with a show or provide an option for clubs who are looking for new ideas for their achievement. Your club leaders and members may have other ideas.

If you are looking for the type of achievement that emphasizes all aspects of production, the scorecards on the following pages may be useful. The scorecard emphasizes all aspects of production. It is used to evaluate the total project year rather than just the live animal as it appears on show day. Members are recognized for their learning and effort for the entire year. If we attempt to teach 4-H youth proper selection, care, and nutrition then we should reward them for their successes in those areas.

The scorecard actually gives several evaluations and weights each category to determine a composite score. Members can be successful on one, two, and all three areas on the scorecard and by doing so can be successful without “winning” the class. Members are scored against a set criterion, not against each other. Every member receives a copy of their scorecard back so they can see where they did well, and where they need to improve. The members receive recognition certificates based on their total score.
The Market Animal Scorecard evaluates in three different areas. The lean yield score emphasizes the importance of producing a high value carcass. The usefulness score evaluates the animal’s traits such as frame, muscling, trimness and correctness. The gain and quality grade score evaluates the rate gain and grade of the animal, which is an indication of how successful the member was at feeding the animal to reach the goal weight.

The Replacement Heifer Scorecard evaluates the various desirable traits and characteristics of a good heifer, the rate of gain, and the breeding success.

The Continuation Heifer (Cow/Calf Pair) Scorecard evaluates the various desirable traits and characteristics of a good cow, body condition, and the characteristics of the calf.

This program does not guarantee a winner in the show ring, but it does provide an opportunity for success for every 4-H member. (See scorecards on following pages)

Note: For more information on this method of evaluation, contact your local MAFRI GO Centre/Office or Rural Leadership Specialist.
## Market Animal Scorecard

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<tr>
<td>Medium</td>
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<tr>
<td>Low</td>
<td>59.0-59.9</td>
<td>16</td>
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<tr>
<td>High</td>
<td>58.0-58.9</td>
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<tr>
<td>Medium</td>
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<td>Low</td>
<td>54.0-55.9</td>
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<td>Low</td>
<td>&lt;53.9%</td>
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Maximum Score Available 20

### ***USEFULNESS EVALUATION***

Score Range 1 – 9

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<tr>
<td>Total Trimness</td>
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<td>5</td>
<td>7</td>
<td>9</td>
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<td>Growth/Frame</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>7</td>
<td>9</td>
</tr>
<tr>
<td>Structure/Balance</td>
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<td>3</td>
<td>5</td>
<td>7</td>
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Maximum Score Available 36

### ***GAIN & QUALITY GRADE***

A.D.G.  | B | A | AA or Better |
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Maximum Point Spread/Grade 11

### Comments: Beef Live Weight Bonuses

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<td>1351-1450</td>
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<tr>
<td>&gt;1451</td>
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TOTAL (Max. 114)

Printed Sept. 2004
## Replacement Heifer Scorecard

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### ***USEFULNESS EVALUATION***

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<td>Trimness</td>
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<td>4</td>
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<td>4</td>
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**Maximum Score Available 60 points**

### ***GAIN***

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**Maximum Score 30**

### ***BREEDING SUCCESS***

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<td>Heifer Pregnant</td>
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**Bonus 10**

**Maximum Score 20**

### TOTAL SCORE

**Possible 110 points**
### Continuation Heifer (Cow/Calf) Scorecard

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### ***USEFULNESS EVALUATION***

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Maximum Score Available 50 points

Score

### ***BODY CONDITION***

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<td>BCS 8 or 9</td>
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Maximum Score 30

Score

### ***CALF USEFULNESS***

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Maximum Score 20

Score

TOTAL SCORE
Possible 100 points
SKILLATHON ACHIEVEMENT

The Skillathon can be done in a competitive or non-competitive manner. It is an opportunity for the members to demonstrate the skills they have acquired. The following are some tips that could be helpful in organizing the event.

- Set up at least 4 stations relative to the project. (see ideas on following page)
- Make stations as hands-on as possible.
- Aim for approximately 5 minutes/station for each member to complete the station activities.
- Consider giving a participation token to each member.
- If scoring, 25 marks per station makes an easy score out of 100 (4 stations x 25 marks). Develop a clear system for allocating points at each station. This allows for faster and more consistent scoring.
- Avoid sharing of answers through station layouts or have multiple situations at the station so that everyone does not get the exact same scenario.
- Develop station with different degrees of difficulties for junior, intermediate and senior participants OR (if ranking) only compare junior participant scores to other junior participants scores.
- Have members rotate through the stations doing their best at each station.

Skillathon Station Ideas

1. **Title:** Feed Quality
   **Supplies:** 4 flakes of different hay, judging cards, pencil, Hormel scorecard.
   **Set up:** Number the 4 flakes of hay and line up on a table.
   **Task:** Rank the quality of these 4 hay samples from highest quality to lowest quality. State your placing and reasons on a judging card.
   **Evaluation:** Have an “official hay judge” rank the hay samples and give reasons. Mark reasons by comparing to the “official judging card”. Mark placings by using the Hormel scorecard. (If you want a more advanced level, have feed analyzed and display lab results for members to assess).
2. **Title: Feed Stuff Identification**

**Supplies:** 5 samples of feed stuff, 10 cards with feed stuff names (5 of which correctly name your feed samples) e.g. rolled oats, barley, trace mineral mix, alfalfa pellets, etc.

**Set up:** Place 5 samples of feed stuff in margarine tubs and line up on a table. Have a tub full of name cards.

**Task:** Identify the feed sample by placing a name card next to it.

**Evaluation:** Count the number of correct identifications.

3. **Title: Feed Labels**

**Supplies:** Collect copies of 10-15 beef feed tag labels. Write a question on the reverse of the tag that members can find the answer to by reading and understanding the tag. Example questions:
- What is the main ingredient in this feed?
- What type of beef cattle should this be fed to?
- What is the active drug ingredient in this feed?
- What is the crude protein level of this feed?
- How many kgs/lbs. of this feed should be fed daily?
- Are there any dangers with using this feed?
- How long prior to slaughter should this feed be removed?
- How many pounds of ingredients are included in this bag?

**Set up:** Tub with feed tags in it.

**Task:** Select 1-5 (you determine the exact number) feed tags from the bucket. Answer the questions on the reverse of the tag.

**Evaluation:** Count number of correct answers.

4. **Title: Meat Cut Identification**

**Supplies:** Draw a beef carcass on bristle board or enlarge and laminate a diagram of a beef carcass. Be sure to remove labels. Cut into pieces.

**Set up:** Place “carcass pieces” in a tub.

**Task:** Select 1-4 (you determine the exact number) carcass pieces from the bucket. Answer the following questions about each piece:
1. Name of the cut
2. Where is the cut located on the animal’s body?
3. Quality of cut - low, medium or high.

**Evaluation:** Count the number of correct answers.
5. Title: Quality Assurance
   Supplies: Copies of - A scenario for vet prescription
             - A poster of a steer

Example:
The steer you are planning on taking to the fair next month is lame in the left front leg. Today your veterinarian has diagnosed the steer's problem as foot rot and has given it an initial treatment at the time of the examination. The veterinarian has left additional medication with you to continue the treatment. The directions on the medication tell you to give the steer 1 cc per 50 kg. body weight once daily for four days, beginning tomorrow, and to give it by intramuscular injection. Your steer weighs 450 kg. Remember, your veterinarian treated the steer today, July 3, 2006 and you will treat it 4 more days as directed. The hold time on this product is 14 days. Look at the label on the following page to determine the answers to these questions:

1. How much will you give the steer each day?
2. How much will you need to treat it for four days?
3. What is the first FULL day the steer could be safely slaughtered for food?
4. On the poster, show the preferred site for the intramuscular injection.

---

Emily Edwards. DVM
100 Quality Avenue
Hometown, MB R7A 16Z
204-555-5050

Owner: Jennifer Wilson          Date: July 3, 2006
Animal ID: Hereford #351        Indications: Foot Rot
Directions: Give 1cc per 50 kg. body weight IM once daily for four days beginning July 4.
Precaution: Avoid injection into muscle of high carcass value.
WARNING: USE OF THIS DRUG MUST BE DISCONTINUED FOR 14 DAYS BEFORE SLAUGHTER OR MARKET FOR FOOD.
Active Ingredients(s) Hydrocillin exp. Date: Sept. 30, 2006

---

Task: Read the scenario and complete the drug label, and answer the questions.
Evaluation: Count the number of correct blanks in drug label and correct answer to questions.
6. Title: Breed Identification
   Set Up: Lay out photos of cattle breeds on table. Have a tub of name labels.
   Task: Match the name label to the breed picture.
   Evaluation: Count the number of breeds correctly identified.

7. Title: Parts of a Beef Animal
   Supplies: Poster of a beef animal. Plastitak or pins (something to stick on animal parts). Name labels for animal parts.
   Set Up: Put poster on wall. Tub of part labels.
   Task: Match the name label to the animal part.
   Evaluation: Count the number of parts correctly identified.

8. Title: Equipment Identification
   Supplies: 5 grooming supplies. 10 labels of grooming supply names. 10 labels identifying use of grooming supply.
   Set Up: Lay out grooming supplies. Two tubs of labels – one for supply name and one for use.
   Task: Match the name and use to the appropriate grooming supply.
   Evaluation: Count number of correct matches.

9. Title: Herd Records
   Supplies: 10-15 copies of a beef animal pedigree
   Set Up: Have pedigrees in a tub. Copies of questions.
   Task: Select a pedigree from the tub and answer the following questions:
      1. Who owns the animal?
      2. What is the original owner’s herd prefix?
      3. What is the animal’s birth date?
      4. What sex is the animal?
      5. What did the animal weigh at birth?
      6. Who is the animal’s mother?
      7. Who is the animal’s father?
      8. Who is the animal’s great grandmother?
      9. Is the animal purebred?
     10. What breed is the animal?
   Evaluation: Count the number of correct answers.
10. **Title:** Show Your Stuff  
**Supplies:** Dependent on task  
**Set Up:** Assign a particular task and have the members demonstrate how it is done (dependent on circumstances, this may be done on a live animal or a model). These could also be used as separate stations. Examples of tasks:  
- groom an animal  
- prepare a tail for the show ring  
- tag an animal  
- needle an animal with a specific drug  
- halter an animal  
- make a rope halter  
- tie a quick release knot  
- demonstrate five safe handling tips  
**Evaluation:** Determine specific points that you want members to allocate and count the number of points that they demonstrated.  
**THESE ARE JUST A FEW IDEAS - YOU CAN CREATE OTHER STATIONS TO MATCH THE AGE AND LEVEL OF LEARNING IN YOUR CLUB.**

**“FARM TO FARM” ACHIEVEMENT**  
At a “farm to farm” achievement, members travel together to each farm to weigh, and view the members’ calves. The score cards on the previous pages could be used to determine scoring for each market calf. For extra learning, each member could be responsible for setting up one skill station or activity at his or her farm for the other members to participate in. Activities could be competitive or non-competitive. A potluck meal or windup could be planned for the end of the day, where tokens, awards, etc. could be handed out.

**“IN THE PEN” ACHIEVEMENT**  
Members bring their calves to one location. Calves could be divided into pens according to junior, intermediate, and senior members. There could also be separate pens for heifers, cow/calf pairs and beginning beef. Criteria for judging these animals could be set out ahead of time so everyone is aware of the standards. Scorecards could be made up from those standards for heifers, cow/calves and beginning beef calves. Awards, certificates, etc. could be presented as calves are judged or at the end of the day.
RESPONSIBLE ANIMAL CARE
As a 4-H member, it is your responsibility to treat your animals humanely to allow them to remain healthy and comfortable.

The Five Principles of Animal Care are:

* Good air, water and feed.*

* Safe housing and enough space.*

* Daily check and effective health care.*

* Sensible handling.*

* A safe, comfortable environment.*

Whenever you see the icon of the animals, like the one below, you will be reminded of that responsibility and how it fits into the different sections of your manual and the information you are learning about.

Source: Adapted from Ontario Farm Council (OFAC), 1992, pg 4.2. “Dr. Frank Hurnik”
Surroundings that will help to reduce illness or fear. It's important to choose a calf that will adjust to being handled and will feel comfortable in the surroundings you have planned for it.
Selection

**Market Animal and Heifer Projects**

Selecting your 4-H calf is the first task of your 4-H project. Look ahead on the calendar to see the approximate date of your Achievement. If you are selecting a market animal, you will want it to be finished by your achievement date. The rest of your project year depends a great deal on the animal you choose. Selecting is really judging with the exception that you are judging young animals instead of more mature animals.

Here are some steps you may want to use when selecting your calf. You may want to take the drawings of the ideal animals on pages 19 and 20 with you to help with your selection.

- Compare the possible animals to each other and to the drawing of an ideal animal.
- Check to see what good characteristics you can find on each animal.
- Look at the animals from a distance.
- Look at the animals from front to rear.
- Move in closer and look at each animal.
- Look at them all again from a distance.
- Make your selection.

**Temperament** - Does the calf seem to be calm and quiet to work around.
Diagram courtesy of Kansas State University Cooperative Extension Service.
THE IDEAL STEER

Diagram courtesy of Kansas State University Cooperative Extension Service
MARKET ANIMAL PROJECT

If you have selected a market animal, you should ask yourself this question. Will this calf be finished by achievement? Using the following hip measurement scale can help you determine what the approximate finished weight of your animal will be.

➢ First, measure the animal from the hip down in inches.________

➢ What is the age of your animal?________

➢ Find the age of your animal in the first column on the following chart.

➢ Go across the frame columns until you find your calf’s approximate hip height.

➢ Find the frame size number at the top of the page and match it up to the animals below. This will give you an approximate finished weight for your animal.
Table 1. Cattle Frame Scores Based on Hip Height in Inches

<table>
<thead>
<tr>
<th>Age (months)</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
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<td>40.2</td>
<td>42.3</td>
<td>44.3</td>
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<td>53.0</td>
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<td>60.9</td>
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<td>53.2</td>
<td>55.1</td>
<td>57.1</td>
<td>59.1</td>
<td>61.0</td>
</tr>
</tbody>
</table>

Source: Beef Improvement Federation, 1990
Selection

Weigh your animal and then do the questions on the following page to find out how much your calf will have to gain each day, to be finished by achievement. How much did it weigh? _______________

On average, calves will gain about 2.5 lbs. a day. Do you think it is possible for your calf to make the necessary daily gain? __________.

Estimate of Required Average Daily Gain
1. Proper Finishing Weight (from score on page 21) __________
2. Beginning Weight __________
3. Total Gain needed (#1 minus #2) __________
4. Days in Feed Period (how many days from first day of feeding until Achievement?) __________
5. Daily gain needed? (#3 divided by #4) __________
Selection

**HEIFER PROJECT ANIMAL**

If you have selected a replacement/breeding heifer, you will want to choose a heifer that will be large enough to breed at the time you have planned for breeding. Heifers should be a minimum of 65% of their mature weight at the time of breeding. The breed chart on the following page will give you a general idea of the mature cow weight for the various breeds.

Weigh your heifer and answer the following questions to find out how much your calf will have to gain each day to meet your project goals.

1. Weight of Heifer
2. Estimated Mature Weight
3. Estimated Breeding Weight  Answer # 2______x 65/100 = _______
4. Estimated Breeding Date
5. Days in Feed Period (how many days from first day of feeding until estimated breeding date)?
6. Weight Gain Required answer #3_____ - answer #1_____ = _______
7. Average Daily Gain Required answer #6_____/answer #5 = _______per day

**GOALS for your Heifer Project should include:**

- Reaching a good breeding weight by your breeding date.
- Having your heifer breed successfully.
CONTINUATION HEIFER (Cow/Calf Pair) PROJECT

If you have selected a Continuation Heifer for your project, you will already have your project animal. Your heifer should be in calf when the project year begins and the calf should be born before the achievement date.

GOALS for your project should include:

- Feeding a ration that will see your heifer continue to grow towards a mature weight.
- Produce a healthy calf.

1. Beginning weight of heifer __________
2. Estimated mature weight __________ (from chart)
3. Weight to Gain answer #2_____ - answer #1_____ = ________

AVERAGE MATURE WEIGHTS OF COWS

<table>
<thead>
<tr>
<th>Breed</th>
<th>Average Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Limousin:</td>
<td>1450 lbs.</td>
</tr>
<tr>
<td>Hereford:</td>
<td>1400 lbs.</td>
</tr>
<tr>
<td>Angus:</td>
<td>1250 lbs.</td>
</tr>
<tr>
<td>Charolais:</td>
<td>1450 lbs.</td>
</tr>
<tr>
<td>Simmental:</td>
<td>1400 lbs.</td>
</tr>
<tr>
<td>Shorthorn:</td>
<td>1400 lbs</td>
</tr>
<tr>
<td>Maine Anjou:</td>
<td>1600 lbs.</td>
</tr>
<tr>
<td>Murray Grey:</td>
<td>1200 lbs.</td>
</tr>
<tr>
<td>Gelbvieh:</td>
<td>1300 lbs.</td>
</tr>
<tr>
<td>Salers:</td>
<td>1250 lbs.</td>
</tr>
<tr>
<td>Blondes Aquitaine:</td>
<td>1300 lbs.</td>
</tr>
<tr>
<td>Dexter:</td>
<td>700 lbs.</td>
</tr>
<tr>
<td>South Devon:</td>
<td>1300 lbs.</td>
</tr>
<tr>
<td>Luing:</td>
<td>1250 lbs.</td>
</tr>
<tr>
<td>Pinzgauer:</td>
<td>1400 lbs.</td>
</tr>
</tbody>
</table>

NOTE: These weights are averages for the purebreds of each breed. Be sure to ask your parent or leaders their opinion on how much your animal might weigh when mature.
In the space below, attach a picture of your calf OR draw a picture of your calf OR describe what it looks like including markings, and coloring.

Your calf’s name ____________________
THE NATIONAL IDENTIFICATION PROGRAM

If you have purchased your calf it should have a CCIA RFID (radio frequency identification) tag in its ear. All animals have to be tagged before leaving their herd of origin. The RFID has an encoded chip and antenna that transmits data.

What is the number on your calf’s CCIA tag?_______

Photo courtesy of ALLFLEX International
This is an example of how to fill in your 4-H Beef Animal Record.
If you are not sure of the birth or other date for your animals, give an approximate date.

**MY 4-H BEEF ANIMAL RECORD**

<table>
<thead>
<tr>
<th></th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
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<td>Year</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td><strong>Project Animal</strong></td>
<td>heifer</td>
<td>heifer</td>
<td>heifer</td>
<td>steer</td>
<td>steer</td>
</tr>
<tr>
<td><strong>Birth Date</strong></td>
<td>Feb 26</td>
<td>Feb 26</td>
<td>Feb 26</td>
<td>Mar 10</td>
<td>Mar 10</td>
</tr>
<tr>
<td><strong>Breed of Sire</strong></td>
<td>LM</td>
<td>LM</td>
<td>LM</td>
<td>LM</td>
<td>BA</td>
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<tr>
<td><strong>Breed of Dam</strong></td>
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<td>SM</td>
<td>SM</td>
<td>SM/SM</td>
<td>BA</td>
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<tr>
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<td>59264</td>
<td>59264</td>
<td>22015</td>
<td>22300</td>
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<tr>
<td><strong>Birth Weight</strong></td>
<td>94 LB</td>
<td>94 LB</td>
<td>94 LB</td>
<td>96 LB</td>
<td>110 LB</td>
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**CONTINUATION**

**HEIFER**

<p>| | | | | |</p>
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<th></th>
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<tbody>
<tr>
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<td>May 5</td>
<td>May 5</td>
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</tr>
<tr>
<td><strong>Type of Breeding</strong></td>
<td>Bull</td>
<td>Bull</td>
<td>Bull</td>
<td>Bull</td>
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<tr>
<td><strong>Sire</strong></td>
<td>LM</td>
<td>LM</td>
<td>LM</td>
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</tr>
<tr>
<td><strong>Birth Date</strong></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td><strong>Calf Birth weight</strong></td>
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<tr>
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<td>22015</td>
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</table>
Note: This 4-H Beef Animal Record can be used for as many years as you are in the Beef Project. You can move it from one project book to another. If you are not sure of a birth or other date give an approximate date.

### MY 4-H BEEF ANIMAL RECORD

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<table>
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<table>
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<th>Breed of <strong>Sire</strong></th>
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<table>
<thead>
<tr>
<th>Breed of <strong>Dam</strong></th>
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<table>
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### CONTINUATION HEIFER

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<table>
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<tr>
<th>Preg. Check Date</th>
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<table>
<thead>
<tr>
<th>Birth Date</th>
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<table>
<thead>
<tr>
<th>Calf Birth weight</th>
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<table>
<thead>
<tr>
<th>Sex</th>
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</table>

<table>
<thead>
<tr>
<th>Tag/Tattoos/Brand</th>
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</table>
HIP HYPE ABOUT HIP HEIGHT

PREPARATION

- Gather together or have members bring some measuring tapes.
- Refer to the hip height chart on page 22.
- Using chalk on a wall or marker on a large piece of paper or cardboard, measure and make different lines to indicate different hip heights. Include at least one measurement from each column on the chart. Number each line marking 1, 2, 3...
- Have each member measure the different lines and write down the number of the line and the measurement of each line.
- Give members different ages of animals to correspond with the different line measurements and have them figure out the approximate finishing weight for an animal of that age and hip height, using the chart on page 22.

THE ACTIVITY

- Members write down the line numbers and then measure each line, putting the answer beside the appropriate number.
- Using the animal ages given to them for each line measurement, they figure out the approximate finishing weight for that size and age of animal.
Check daily to be sure your animal is healthy.
Give necessary treatment to prevent illness and respond quickly to health problems.
Keeping Out Diseases

Keeping animals healthy begins with keeping out diseases. Diseases can make their way to your farm in several ways:

- **New Cattle**: Buy cattle from a herd with a good herd health program.
- **Quarantine** new cattle for a month.
- **Cattle returning from things like shows or community pastures**: Vaccinate new cattle before they arrive, or in the quarantine pen.
- **Visiting another farm or having visitors at your farm**: Change chore clothes and shoes before visiting another farm and after returning from another farm.
- **With animals, insects or birds that have free movement from one farm to another**: Watch for and get rid of rodents and stray animals. Control insects that carry diseases.

**If an animal is ill**:

- Move it away from the rest of the herd.
- Supply clean water and food.
- Make sure there is a source of fresh air, but that it is not drafty.
- In cold weather keep warm straw under and around the animal.
- Keep the animal propped in normal position - not stretched out.
- Keep a good record of the animal's illness.
PARASITES

A parasite is any living organism that lives in or on a host animal. The parasite gets food and shelter from the host. There are two types of parasites - internal and external. These are some common parasites that affect beef animals.

INTERNAL
Round Worms
Coccidiosis
Lungworms
Liver Flukes
Eyeworms

EXTERNAL
Lice
Mange (Mites)
Horn Flies
Warble Flies

An animal with Internal Parasites might show these symptoms:
- Stop Drinking
- Lose Weight
- Not Eating
- Decreased Milk Production

An animal with External Parasites might show these symptoms:
- Be uncomfortable
- Lose weight
- Have dull, rough hair
- Rub on fences, buildings and trees
- Not eating or drinking properly
Roundworms are a common parasite in beef animals. The *larvae* of the roundworm attach themselves to grass. The animal eats the grass and the larvae too. Once they are inside the animal’s body, they grow into adult worms. The worms lay eggs and the eggs are passed out of the body with the manure. They hatch in the manure and once again the larvae attach themselves to the grass that the animals eat. The cycle begins again.

**Treating for Parasites:** Internal parasites can be treated with *systemic insecticide*. External parasites can be treated with dusts, sprays, and self-treatment devices such as cattle oilers.
All Projects

VACCINATIONS

Humans have vaccinations for diseases like measles and diphtheria. We can also give vaccinations to beef animals, to prevent them from catching certain diseases. There are two types of vaccines; live and killed. A live vaccine contains live organisms that would cause the particular disease. However, the organisms have been changed so that the animal doesn't actually get the disease from the vaccination. Instead it causes immunity to the disease. A killed vaccine contains dead organisms of the particular disease. They are added to a liquid carrier and create immunity to the disease.

You should always follow the directions for vaccinating carefully. Read the label and check for:

- How to give the vaccine (subcutaneous or intramuscular).
- Check the expiration date.
- Keep vaccine refrigerated, but do not freeze.
Health

All Projects

Where do we give needles?

To avoid damaging the meat, needles must be given in an area where there will be minimal meat damage. The best location for subcutaneous needles is just in front of the shoulder where the skin is loose. Intramuscular needles should be injected into the neck muscle.
Health

All Projects

How do we give needles?

Subcutaneous injections are given under the skin of the animal. The skin is pulled up and away from the animal’s body, and the needle is inserted into the empty spot between the skin and the muscle.

Intramuscular injections are given into the muscle on the animal’s neck. You must be sure to have a needle long enough to go through the skin and into the muscle.

Diagram courtesy of the Canadian Cattleman’s Association
The following diseases can all be prevented with vaccinations.

<table>
<thead>
<tr>
<th>DISEASE</th>
<th>CAUSE/SYMPTOMS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blackleg</td>
<td>Soil-borne organism.  First sign is often a dead animal.</td>
</tr>
</tbody>
</table>
| Malignant Edema (false blackleg)             | Watery, usually foul-smelling wound infection, large soft swelling under the skin.  
                                             | Caused by *Clostridium septicum*.                                              |
| Black Disease                                | Caused by clostridian bacteria in the liver.  Depression, fever, immobility, arched back are symptoms, but death often occurs before the disease is identified. |
| Gas Gangrene                                 | Caused by clostridia perfringens in an infected wound.  Gas forms in fermenting dead tissue in the wound. |
| Enterotoxaemia (pulpy kidney)                | Caused by the bacteria *Clostridium perfringens* that produces a toxin that quickly kills the animal. |
| ITEME (infectious thromboembolic meningencephalities or sleeper syndrome) | Caused by the *hemophilus somnus* bacteria.  Fever, coughing, joint lameness, acute nervousness, lack of coordination. |
| Tetanus (lockjaw)                            | Caused by the *Clostridium tetani* bacteria found in the soil.  Stiffness, spasms, rigidity. |
| IBR (infectious bovine rhinotracheitis)      | Off feed, high fever, harsh cough, watery eyes, abortions, infertility. Caused by a virus spread by contact. |
| BVD (bovine virus diarrhea)                  | Caused by infectious virus.  Diarrhea, fever, sores in mouth, lameness, eye lesions, abortions, weak newborn calves, birth defects. |
| BRSV (bovine respiratory syncytical virus)   | Respiratory infection that affects mainly weaned and feedlot animals.         |
# My Animal Health Record

<table>
<thead>
<tr>
<th>DATE</th>
<th>PROCEDURE, AILMENT OR DISEASE</th>
<th>MEDICATION, TREATMENT, VACCINATION</th>
<th>DOSEAGE</th>
<th>ROUTE</th>
<th>SITE</th>
<th>WITHDRAWAL TIME</th>
<th>COST</th>
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<tbody>
<tr>
<td>Oct. 28/06</td>
<td>Blackleg</td>
<td>Vaccination</td>
<td></td>
<td>Subcutaneous</td>
<td>Neck</td>
<td></td>
<td>$0.62</td>
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<tr>
<td>Nov. 1/06</td>
<td>Parasites</td>
<td>Ivomec</td>
<td></td>
<td>Pour-on</td>
<td>Back</td>
<td></td>
<td>$4.00</td>
</tr>
<tr>
<td>Nov. 4/06</td>
<td>Dehorned</td>
<td>Gougers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nov. 15/06</td>
<td>Castration</td>
<td>Burdizzos</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dec 5/06</td>
<td>Bloat</td>
<td>Bloat Go</td>
<td>1 litre</td>
<td>Drenching</td>
<td></td>
<td></td>
<td>$4.80</td>
</tr>
</tbody>
</table>

**TOTAL COST**  

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39
## My Animal Health Record

<table>
<thead>
<tr>
<th>DATE</th>
<th>PROCEDURE, AILMENT OR DISEASE</th>
<th>MEDICATION, TREATMENT, VACCINATION</th>
<th>DOSEAGE</th>
<th>ROUTE</th>
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<th>WITHDRAWAL TIME</th>
<th>COST</th>
<th><strong>TOTAL COST</strong></th>
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**TOTAL COST** _________
Health

Heifer and Continuation Heifer Projects

CALVING

If you are using a heifer or continuation heifer as your project, you should work through this section on calving. Your goal for your project should include raising a strong healthy calf from your heifer or cow.

Calving can be an exciting time and it’s important that you know when calving time is near, so you can keep a close eye on your animal. The following points are some signs that calving time is near.

- The udder or bag begins to fill with milk.
- The animal’s belly area drops or looks heavy.
- The vulva relaxes and becomes quite loose.
- The ligaments on the sides of the tail head relax and sink.

A short time before the cow actually goes into labour she may display some or all of these signs.

- Moves away from other cattle.
- Becomes restless and lies down and gets up often.
- Raises her tail.
- Stops eating.
- Discharges strings of mucus from the vulva.
Health

There are three stages of calving. **Stage One** is called the “relaxation” stage.

- Should last from 2 to 3 hours for a cow and 4 to 6 hours for a heifer.
- The calf changes position in the **uterus** and the uterus begins contracting.
- The contractions are about 15 minutes apart and become strong and more often as time pass.
- The water sac is forced into the **cervical canal** and **pelvic area**. You may see the broken water sac hanging from the vulva at the end of stage one.
- Keep an eye on your animal, but try to stay out of sight.

Normal Position of the Calf
In Stage Two, the animal goes into active labor.

- The Active Labor stage should last from ½ hour – 1 hour in a cow and up to 3 hours for a heifer.
- The calf enters the birth canal.
- The uterus contracts more often and the contractions are stronger.
- The calf’s front legs and head are forced through the birth canal.
- As the calf’s shoulders and chest are pushed out of the birth canal, the stomach muscles relax and the hips and hind legs straighten out behind it, so that the hips slide out more easily.
- Once the hips are out, the back legs slide out easily.
**Stage Three** is called the Involution Stage. In this stage:

- The cow should begin to lick her calf clean.
- Often the cow will eat the afterbirth to keep animals such as coyotes from being attracted to the area.
- The uterus continues to contract and the *placenta* or afterbirth is delivered; usually within 12 hours.
- Birthing fluids called lochia will continue to be discharged for up to 2 weeks, and the uterus will be back to normal in 30 - 40 days.

---

**Heifer and Continuation Heifer Projects**

Mark each statement with 1, 2, or 3 to show which stage of labor the cow is in.

The water sac has just broken.  ______

The cow is restless, and getting up and down a lot.  ______

The cow has been straining for $\frac{1}{2}$ hour.  ______

You can see the front legs and a nose in the canal.  ______

The cow has moved off into an area by herself.  ______

The cow has delivered a calf and is licking it off.  ______

The placenta has been delivered.  ______
Heifer and Continuation Heifer Projects

THE NEWBORN CALF

Newborn calves need to get off to a good start to remain healthy. The first few hours are very important. Here are some things to watch for.

- The calf may be born with a thick fluid or mucus in its nostrils. You can help to clear this by holding the calf by its rear legs with its head pointing down. You can also try tickling the nostrils with clean straw to make the calf snort and shake its head.

- Disinfect the navel using an iodine dip. It will help to kill bacteria that cause diseases.

- After the calf is breathing normally, allow the cow to lick it dry. The calf should soon stand and try to nurse.

- A newborn calf should have a bowel movement within a few hours after birth. It will be a dark color and look like tar.

- Getting that first drink of Colostrum is very important. If the calf isn’t able to get up to drink you will have to give it either packaged or milk from its mother through a tube feeder or bottle. Colostrum supplies antibodies for fighting off diseases, and Vitamin A and D.
IT WON'T HURT A BIT!

PREPARATION

- Oranges or Apples
- Old socks that fit loosely enough over the apples or oranges to allow members to pull up the sock to resemble the skin on the neck of an animal.
- Members can share - they don't each need a piece of fruit and a sock.
- Syringes and needles - shorter needles for subcutaneous and longer needles for intramuscular.
- Coloured water or juice. (something that will show up when injected)
- Inject the intramuscular shot into the fruit. Lift up the sock and inject the subcutaneous shot under the skin (sock) being careful not to drive the needle into the fruit.

ACTIVITY

- Tell members what type of shot they will be giving -- intramuscular or subcutaneous.
- Let members choose the right needle for the shot.
- Members will give the shot and should then check their animal (orange or apple) to see if the injection ended up in the right place.
THE FIRST AID KIT

PREPARATION

❖ Gather together as many items as you can find that are used in treating and preventing illnesses in beef animals. It could include different kinds of medicine, syringes, dehorners, disinfectants, swabs etc.

PLAYING THE GAME

❖ Spread all of the items out so that members can all get a close look at all the items.
❖ Members can play individually or they may be divided into teams. (perhaps some younger members with older members)
❖ Give them a few minutes (depending upon how many items you have) to look at and memorize what they see.
❖ Give the members pens and paper, and remove the items from sight.
❖ Ask the members to write down as many First Aid items as they can remember.
❖ When they have down all they can remember, pick up each item, identify it, and ask them to give themselves a point for each correct identification.
❖ For added learning, you might ask how to use each item.
FEEDING FORAGES
FEEDING YOUR 4-H ANIMAL
TAKING FEED TESTS

Enough air, water and feed. Give your animal a healthy diet with a ration that will fit its needs.
It’s very important that your 4-H animal receives the right diet and ration so it will grow to meet your goals. Too much feed can cause health problems or an overfat carcass. Feeding too little might mean having to feed for a longer period of time at a greater cost. A heifer or cow that is under nourished may have reproductive problems. The types of feed you give your animal can have a huge effect on their growth and performance. Some things that can affect how much forage your animal will eat are:

- **Quality of forage** - If forage has been exposed to a lot of damp weather, mould can reduce the amount the animal eats, and the mould could cause health problems.
- **Type of forage** - Cattle will eat more legumes than grasses.
- **Stage of forage** - As forage matures, the fibre content increases. With higher levels of fibre, the animal will eat less.
- **Fermentation** - If the hay is fed as silage, less will be eaten than if it was dry hay.
- **Grain Feeding** - If the animal is being fed grain, they will eat less forage.
- **Physical Form** - Grinding the forage will increase how much the animal eats.
- **Condition of Animal** - Cows that are nursing a calf will eat somewhere between 40 and 60% more than dry cows. An older animal in good condition will eat less than a younger, growing animal.
- **Nutrients** - An animal with a nutrient deficiency will not eat as much forage.
- **Weather** - An animal will eat more in cold weather than in warm weather.
Nutrition

All Projects

If you know your animal’s condition and the quality of the feed you have available, you can change your animal’s diet to suit the conditions. For example; in colder weather you might want to increase the amount of feed, and in warmer weather you might want to decrease the amount of feed.

The only way to be sure of the quality of the feed you are using is to have it tested.

TAKING FEED SAMPLES

Take the following steps to test your feed.

Pick up sample bags, a core barrel sampling tool, and the necessary paper work from your MAFRI GO Centre/Office.

For baled **roughage**: Sample each type of feed separately. Use the core sampling tool to take samples from at least 12 different bales or places in the stack. Put all the samples together in one bag.

- **Silage or Loose Roughage**: Take samples by hand from 15-20 places in the stack or silo. Put them in a pail and mix. Take a sample from the pail and place it in a plastic sample bag.

- **Grains or complete feeds**: Take samples from different locations in the bin. Put the samples in the bags and complete paper work.

- Send your sample to a feed testing lab. Some labs may give 4-H members and clubs a discount, so be sure to check it out. Your MAFRI GO Centre/Office will have information on this.
**Nutrition**

**All Projects**

What kinds of feed are included in your 4-H animal’s ration?

__________________________________________________________________________________________

__________________________________________________________________________________________

Have a leader, parent, or older member (whoever is responsible for helping you decide what to feed your calf) help you with these questions about feeding your 4-H calf.

- Estimate how much feed your calf eats IN ONE DAY.
- Use either lbs. or kgs.
- If it's possible, you might even want to weigh the food you give your animal.
- Re-estimate or re-weight your animal’s food about every 6-8 weeks.

<table>
<thead>
<tr>
<th>TIME PERIOD</th>
<th>FORAGE</th>
<th>GRAIN</th>
<th>MINERALS/SALT</th>
<th>OTHER</th>
</tr>
</thead>
<tbody>
<tr>
<td>DATE</td>
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</table>
NAME THAT FEED

PREPARATION

❖ Package several different kinds of feed for beef animals.
❖ Forage could be different combinations such as timothy/alfalfa, wild hay, and clover.
❖ Grain could be rolled, whole or ground, and some could be more than one kind of grain such as barley and oats.
❖ You could include mineral and salt.

ACTIVITY

❖ Give the members a list of all of the different feeds you have packaged.
❖ Number the bags in random order - be sure it’s not the same order as the list you gave the members.
❖ Have the members look carefully at each feed and using their list of feeds, give each sample a name.
❖ Members may have some trouble identifying the feeds especially the ones that are mixed grain or forage.
❖ Use this opportunity to explain to them the differences between the feeds.
I KNOW MY FEEDS - UPSIDE DOWN AND BACKWARDS

PREPARATION

- Make enough copies for each member or each team if you decide to work in teams OR enlarge the pages of words and pin them up on a board for everyone to see.
- Set a time limit depending upon the ages of the members.
- The words are all related to feed.
- See who can unscramble the most words, the fastest.

ERBIF

BETTA

DRY

SWEEP IN ELBITESSEDATION
CHECKING OUT YOUR FACILITIES

MANURE MANAGEMENT

Safe housing and enough space, to prevent injuries and allow your calf to keep healthy and to grow.
Facilities

All Projects

Good facilities should be strong and durable, and easy to operate. People who own beef animals need a variety of handling facilities. Some advantages of having suitable facilities are:

- They will save time and extra work, and allow more animals to be handled in less time.
- They will increase safety, and cause less stress for the animals, and the people who are working with them.
- They will allow workers to treat sick animals, and give needles and medications accurately and safely.
- They will allow workers to apply brands, ear tags, tattoos etc. correctly and safely.

All Projects    Housing Beef Animals

Draw or take pictures of OR cut pictures of examples from magazines to show the housing set up where you keep your 4-H animal.
Facilities

**All Projects**

Answer the following questions about the set up. If your animal is kept in a pen or area where there are no buildings for shelter, go to Part 2.

**Part 1:**

What is the approximate size of housing or barn? ___________________

What kind of materials is it built from? ___________________

What kind of roof does it have? ___________________

How old is the building? ___________________

How is it divided up inside? ___________________

Does it have a ventilation system? (air vents, fans, etc.) ___________________

Is it open on any sides? ___________________

What direction does it face? (important for open sided buildings) ___________________

Can cattle come and go whenever they choose? ___________________

Is there a separate area for sick animals? ___________________

What are some good points of the housing? ___________________

What are some things that don't work very well or could be improved?

______________________________________________________________

______________________________________________________________
Facilities

**All Projects**

**Part 2**

What is the approximate size of the area your animal lives in?
_______________________________________________________________

What materials or resources are used to supply shelter from the weather?
_______________________________________________________________

Does the area get plenty of sun during the winter months? ________________

Is there shade available in the summer months? _________________________

Is there a separate area for sick animals? _____________________________

What are some good points about this type of housing?
________________________________________________________________
________________________________________________________________

What are some things that could be improved?
________________________________________________________________
________________________________________________________________


All Projects

MANURE MANAGEMENT

What Is Manure?

Manure is a by-product of all animals. It is valuable as a soil conditioner and a source of nutrients. The nutrient value of manure varies with the age and type of animal, the nutrients in the feed the animal eats, and the methods used for collecting, storing and spreading the manure.

What are the Benefits of Manure?

Using manure as a fertilizer helps to return nutrients to the land. Applied correctly, manure:

- Supplies nutrients the crop needs.
- Increases **organic matter** in the soil, which helps with:
  - water infiltration and less water loss from run-off.
  - decreasing wind and water **erosion**.

Why do we need to worry about Manure Management?

We are beginning to see larger livestock operations on smaller land holdings. Those bigger operations are creating larger amounts of manure. We are also seeing more people who are living in the country who have little knowledge of agriculture or how livestock are raised and cared for. Sometimes this results in conflicts between livestock producers and their neighbours. One of the major complaints from neighbours of large livestock operations is odours coming from cattle in confined areas, and manure that is being stored or spread.
Another concern is the possible contamination of surface and ground water, which of course affects both humans and the wildlife that rely on the water. Our water supply is used for drinking and personal use, agriculture, and recreation. Birds, animals, insects and fish also rely on the water supply. Controlling the water run-off from confined livestock areas is very important for keeping surface and ground water clean and of good quality. Soil helps to act as a filter that protects the groundwater, but it is possible for micro-organisms to slip through that filter if the water table is shallow or where the soil conditions are coarse. Manure can also get into groundwater through poorly made wells.

**What can we do about these challenges?**

**Reducing Odour:**

There are steps that can be taken to help reduce odours from livestock operation.

- **Dry or solid manure is less odorous.** The use of plenty of bedding lowers the moisture content and slows down the *anaerobic decomposition*.
- **Composting manure creates a less odorous, high quality fertilizer.** There may also be a market beyond the farm for composted manure.
- **Spreading manure in late spring before the warm temperature of the air increases bacteria activity and odours resulting from that activity.**
- **Incorporate spread manure as quickly as possible.** Once it is mixed in with the soil there will be fewer odours.
- **Consider nearby neighbours by checking the wind direction when spreading manure.**
- **Inform nearby neighbours of when you will be spreading manure.** They may want time to make changes to minimize the effects of the odour.
Facilities

Protecting Water Sources from Contamination:

With careful planning contamination of surface and ground water can be reduced.

- Be sure there are appropriate setbacks and buffer strips between the land you are spreading manure on and nearby lakes, sloughs, streams, and wells.
- Do not apply manure on frozen soil or snow-covered ground. Much of it will be lost in the spring run-off.
- Do not store or spread manure near ground water recharge areas.
- Be sure wells are properly constructed, and test water quality frequently.
- Plant deep-rooted crops such as alfalfa to take in the nitrate from the manure. The deeper root will catch nitrates that seep deeper than most crop roots grow.
- Make settling basins where erosion rates are high.
- Do not store manure in areas that are prone to flooding or in the path of spring run-off.
- Spread manure evenly and at the rates suggested by the soil and manure testing.
- Incorporate or inject manure.

Research is ongoing to find new and better ways to dispose of manure that benefits both the livestock producer and the quality of our water. Vegetated filter strips and man made wetlands are two ideas that are presently being tested. It is important to livestock producers to continue to look for better solutions for managing manure.
What does good Manure Management include?

- Yearly planning and record keeping.
- Considering the type of manure.
- Testing the manure and soil to find out how much and what kind of nutrients they contain.
- Applying manure at a rate that matches the amount of nutrients the soil test calls for.
- Taking into consideration the season, weather conditions, soil type, topography, and access to surface water.

Manure should be spread in a way that gives the crop the most effective rate of fertilizer while minimizing the impact to the soil, water and air.

Don't allow clean water to flow through livestock pens. Run-off from livestock pens can cause excessive algae growth.
What happens to the manure from your 4-H calf? Answer any of the questions below that relate to how you dispose of the manure.

Is it stored? If so, how is it stored?

Approximately how long is it stored for?

Is the manure spread or composted?

Where is the manure spread?

What time of year is it spread?

Is it incorporated into the soil?

What machinery is used to handle and/or spread the manure?
WATER TESTING

Arrange to have the members test water in variety of places. Some test areas might include a slough that collects water from a nearby barnyard or feedlot, a well in or close to a barnyard or feedlot, water from a dugout, and water from a well that is used for humans.

Many Conservation Districts offer water testing free of charge once a year. This would be an inexpensive way to offer this activity. The water testing kits are often easily accessible by picking them up at the municipal office, the MAFRI GO Centre/Office, the district conservation office, or the water stewardship office.

Instructions are included with the kits. When you pick up your kit you will be instructed as to when and where they should be dropped off. They need to be processed within 48 hours of the collection time. Results will be mailed directly to the person listed on the form that is submitted with the sample.
FACILITIES TREASURE HUNT

PREPARATION

- Make copies of the clues and answer for each team - you can have as many teams as you want.
- Cut out the answer and clues
- Hide the answers ahead of time.

PLAYING THE GAME

- If a team finds more than one of the same answers, they can only keep one - the other has to be put back for other teams.
- Put a time limit on the game.
- Answers have to be matched up with the clues.
- The first team with the most CLUES and ANSWERS matched up wins.

ANSWERS

10. Adjustable side panels/sides of working chute 11. Fire extinguisher
<table>
<thead>
<tr>
<th>Holding Pen</th>
<th>Squeeze Chute</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Crowding Gate</strong></td>
<td><strong>Working Chute</strong></td>
</tr>
<tr>
<td><strong>Back Stop</strong></td>
<td><strong>Man Gate</strong></td>
</tr>
<tr>
<td><strong>Cutting/Sorting Gate</strong></td>
<td><strong>Loading Chute</strong></td>
</tr>
<tr>
<td><strong>Adjustable Side Panels/Sides of Working Chute</strong></td>
<td><strong>Working Stick</strong></td>
</tr>
<tr>
<td><strong>Fire Extinguisher</strong></td>
<td><strong>Feed/Chop Bin</strong></td>
</tr>
<tr>
<td><strong>Floor</strong></td>
<td><strong>Shovel/Fork</strong></td>
</tr>
<tr>
<td><strong>Wires</strong></td>
<td><strong>Bedding</strong></td>
</tr>
<tr>
<td><strong>Fans/Ventilation</strong></td>
<td><strong>Manure</strong></td>
</tr>
<tr>
<td><strong>Lights</strong></td>
<td><strong>Records</strong></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td><strong>This area should not be too large, as it could be dangerous for animals or handlers. It should be able to hold 8 - 10 animals. This is where animals are held before entering the working chute.</strong></td>
<td><strong>This is used to properly restrain the animal while working on it. It will allow you to give medications in the correct area without having the animal jumping around.</strong></td>
</tr>
<tr>
<td><strong>1</strong></td>
<td><strong>2</strong></td>
</tr>
<tr>
<td><strong>This makes it easier to move cattle through the chute without getting kicked. It also allows cattle to move with their circular behaviour.</strong></td>
<td><strong>This should be curved slightly and have no shadows of light shrinking through. Also no appearance of a dead-end in sight.</strong></td>
</tr>
<tr>
<td><strong>3</strong></td>
<td><strong>4</strong></td>
</tr>
<tr>
<td><strong>This prevents animals from backing up near the head gate or squeeze chute.</strong></td>
<td><strong>This is used for the safety of the handler. It allows for a quick escape in case an animal may charge.</strong></td>
</tr>
<tr>
<td><strong>5</strong></td>
<td><strong>6</strong></td>
</tr>
<tr>
<td><strong>This allows you to separate an animal from a group. You should never stand directly behind this when it is open and an animal is approaching you.</strong></td>
<td><strong>This is used to load cattle, usually onto a truck. It should have very good flooring to allow the animal secure footing.</strong></td>
</tr>
<tr>
<td><strong>7</strong></td>
<td><strong>8</strong></td>
</tr>
<tr>
<td><strong>This is used only when absolutely necessary. With patience and proper body movement and position around the cattle, you will not have to use this object.</strong></td>
<td><strong>This is a very important part of the working chute which allows all kinds of cattle to enter with only small adjustments. You could have calves or bulls go through as long as you have this.</strong></td>
</tr>
<tr>
<td><strong>9</strong></td>
<td><strong>10</strong></td>
</tr>
<tr>
<td>You will be glad you had this if there is a fire.</td>
<td>If cattle break into here they can overload on grain.</td>
</tr>
<tr>
<td>---------------------------------------------------</td>
<td>-----------------------------------------------------</td>
</tr>
<tr>
<td>11</td>
<td>12</td>
</tr>
<tr>
<td>Make sure this is very clean and free of garbage as an animal could slip on this.</td>
<td>Make sure these are hung up or put aside so animals and people don't trip on them when entering or leaving the barn.</td>
</tr>
<tr>
<td>13</td>
<td>14</td>
</tr>
<tr>
<td>A fire will start if these are not properly covered.</td>
<td>Make sure this is available for each animal in its stall to make it comfortable and to absorb wastes.</td>
</tr>
<tr>
<td>15</td>
<td>16</td>
</tr>
<tr>
<td>A barn requires this to circulate air, to prevent ammonia build up and to allow fresh air to enter.</td>
<td>This should be cleaned out everyday to help prevent disease and to keep animals clean.</td>
</tr>
<tr>
<td>17</td>
<td>18</td>
</tr>
<tr>
<td>This will make it easier for you to move around and see what you are doing.</td>
<td>These should be stored in a special place in case you need information about a certain animal.</td>
</tr>
<tr>
<td>19</td>
<td>20</td>
</tr>
</tbody>
</table>
MARKETS
CONSUMERS
ANIMAL
WELFARE
AND ETHICS
WHAT'S THE
CONNECTION?
In the beef industry, marketing is producing and selling your beef product to a buyer. Your product has to satisfy the buyer or it might not sell, or it might sell at a lower price than you were hoping for.

We can think about marketing as having 3 P's - Product, Price, and Promotion.

The PRODUCT could include things like:

- A carcass
- Hamburger patties
- A bull
- A live steer

PROMOTION can take place at different levels such as:

- Advertising your own cut and wrapped animals.
- Supermarkets advertising beef in their weekly flyer.
- The Canadian Cattlemen’s Association promoting the high quality of Canadian Beef.
- The restaurant advertising Prime Canadian Beef on their menu.

PRICE is determined by factors in the market such as:

- Quality of the animal
- Amount of animals being sold at that time.
- The weather and the season.
- Consumer attitude.
- Demand for the type of animal you have.
In the beef industry, the consumer is anyone who uses or eats the beef product. We usually think of that product as being meat. Other products include any of the bi-products of beef such as insulin, leather products, and paint brushes.

There are many people, organizations and businesses involved in getting beef from the farm where it is produced to the consumer who uses the end product.

These different groups of people each play an important role in marketing the beef. If there is a problem somewhere in the chain, the link between the Beef Producer and the Consumer becomes weak and a broken link means that the consumer may lose trust in the system, and stop buying the product. For example: A meat grader grades an older cow as Grade A instead of Grade D. The meat moves on to the supermarket and the meat department advertises the steak as Grade A. The consumer buys the steak and takes it home to barbecue. The consumer complains to the meat manager that the steak was tough as leather and had no marbling at all. The store owner checks the rest of the shipment and discovers that the meat did not have the amount of marbling needed to make a Grade A, and that the meat was darker, indicating the possibility that it was an older animal. The consumer has lost faith in the store where she purchased the meat, and the store owner has lost faith in the meat packing plant. Everyone in the chain is affected by the mistake, even though the beef grader was the only link that made an error.
ALL PROJECTS

ANIMAL WELFARE AND ETHICS

WHAT IS ANIMAL WELFARE?

Physical and mental health, no pain and suffering, and a good fit between an animal and its environment are all points that should be considered when we think about animal welfare.

WHO ARE ANIMAL WELFARISTS?

Animal welfarists are people who believe that animals should be treated as humanely as possible. They also accept that people depend on animals. Included in this category are responsible livestock producers, trappers, hunters, researchers and pet owners.

WHAT IS HUMANE TREATMENT?

Webster’s New Collegiate Dictionary defines humane as “marked by compassion, sympathy or consideration for other human beings or animals.” Humane treatment means providing proper care and attention to maintain good health and an adequate level of comfort.

WHAT ARE ANIMAL RIGHTS?

Animal rights way of thinking suggests that animals should have the same rights as people (e.g. the right to be free from exploitation, and the right to be free from pain and suffering)
WHO ARE ANIMAL RIGHTISTS?

Animal rightists are people who want to put an end to many animal uses because they believe that animals have the same rights as people. There are animal rightists who believe that the use of animals in science, in commercial animal agriculture, and in hunting, trapping, and for sport should be stopped.

WHAT ARE ETHICS?

Ethics are principles, what you believe or basic values that you rely on to help you make decisions about things that are important to you. What you believe or what stand you take when it comes to the use and treatment of animals will be affected by those basic beliefs or ethics.

THE CONNECTION BETWEEN ETHICS, ANIMAL WELFARE, THE CONSUMER AND MARKETING

There are many ways that ethics, animal welfare, the consumer, and marketing are connected. The consumer and the producer may have different ethics concerning the use of animals. This difference can affect the markets if consumers refuse to buy beef products. Some beef producers may have ethics that lead to abuse of animals. This can damage the image of all producers, especially if the media reports on a case of abuse. It’s very important for all livestock producers to follow proper care, handling, and treatment procedures and to promote a positive image to consumers.
The following describes general responsibilities of __________________ and all persons in his or her authority in the proper care and handling of their animal(s).

✓ To provide food, water and care necessary to protect the health and welfare of my animals.
✓ To provide a safe and healthy environment for my animals that is clean, well ventilated, and provides ample space.
✓ To provide a well-planned disease prevention program to protect the health of my herd or flock. This includes a strong veterinarian/client relationship.
✓ To use humane and sanitary methods when it becomes necessary to dispose of my animals.
✓ To make timely inspections of all animals to evaluate the health and insure that all basic requirements are being met.
✓ To insure proper handling techniques are used to eliminate any undue stress or injury when manual manipulation is necessary.
✓ To provide transportation for my animals that avoids undue stress or injury caused by overcrowding, excessive time in transit, or improper handling when loading or unloading.
✓ The wilful mistreatment of my animals or the mistreatment of any animal will not be tolerated. In cases of mistreatment, I will notify the proper authorities.
✓ To make management decisions based on scientific fact and to consider the welfare of my animals.
✓ To learn about species-specific quality assurance programs.

I have read, understand and commit to the above statements.

______________________  4-H Member
______________________  4-H Leader
______________________  Parent/Guardian

Adapted from:
Ohio Farm Animal Care Commission, Box 479, Two Nationwide Plaza Columbus, OH 43216-0479
LINKING THE PRODUCER TO THE CONSUMER

Follow the links from the beef producer to the consumer. The pictures on the following page are some of the different links that are involved with the beef industry in Canada. See how many you can name by writing their name beside the numbers below.

PREPARATIONS

- This activity can be done individually or in teams.
- Make enough copies for each person or team involved.
- See if they can think of any other links that have been missed.

1. ______________________________  2. ____________________________
3. ______________________________  4. ____________________________
5. ______________________________  6. ____________________________
7. ______________________________  8. ____________________________
9. ______________________________  10. ____________________________
11. ______________________________  12. ____________________________
13. ______________________________

75
WHAT DOES HUMANE TREATMENT REALLY MEAN?

PREPARATIONS

❖ Each member will need a copy of the statements below.
❖ Have the members read through the statements and check the ones they think could affect their animal’s welfare.
❖ Listen to their explanations about why or why not they believe the points affect the welfare of the animals, allowing them to voice different opinions and ideas.

Check the items below that you think affect our animals’ welfare?

_____ Their surroundings or environment.
_____ How we handle them.
_____ Their nutrition and health.
_____ The weather and seasons.
_____ Beef producers learning new and better techniques.
_____ Whether we can afford to meet the needs of our animals.

Explain in a few sentences why or why not each point affects our animal’s welfare?
Sensible Handling. Always handle your animal in a way that avoids unnecessary suffering.
WORKING WITH AND HANDLING CATTLE

Most accidents involving cattle happen when people are handling, loading or working closely with the animals. When animals feel threatened or scared, they might react by kicking, charging, or running.

Remember to follow these safety tips when you are handling your 4-H animal or other cattle.

- Stay Alert.
- Talk quietly so the animal knows where you are.
- Move slowly around the animal.
- Don’t make sudden movements or loud noises.
- Wear protective boots.
- Don’t use electric prods or whips.
- Don’t wrap the lead shank around your hand.
- Keep your working area clear of things you might trip on.
- Be sure handling facilities are working correctly.
- Be extra cautious around mother cows with calves, and bulls.

All Projects

Do you know anyone who has been injured while handling cattle? __________

If so, describe what happened?______________________________________________

Could the accident have been prevented?____________________________________
Handling

**All Projects**

**UNDERSTANDING CATTLE BEHAVIOR**

*Cattle are social animals* and they like to live and move in groups. It is usually easier to move and handle cattle when there is a group of them. *Cattle like to follow the leader.* Often once you get one animal to move the others will follow. *Cattle move better through a chute system that is curved* rather than straight. They will often balk if they can see a dead-end ahead or a sharp turn. *Let the cattle move at their own speed.* Pushing them too fast can make them harder to handle.

The animals below are being moved as a group, following a lead cow. Notice how the chute curves so that the animals do not see a dead end or sharp turn.

Photo courtesy of Hi-Qual Manufacturing, Rapid City S.D.
Handling

All Projects

TRAINING YOUR CALF

Using the Halter

- Place the halter on the calf’s head with the lead on the left side. Put the cross strap that goes over the nose 2 to 3 inches below the eye.
- Do not have the halter so big that the nose-cross piece is down by the mouth.

Start Early

Success in beef cattle showmanship must start at home with halter breaking the calf.

- Start by tying the calf for an hour, working up to 3 to 5 hours a day. During this time, brush and talk to your calf. This will assist in calming the calf and allow it to become accustomed to you.
- Be sure to tie the calf with a quick release knot so you can quickly and safely untie the calf if necessary.
- Training a calf to walk, stop, and set up takes work and patience. At first, lead the calf to and from feed and water.
- Later, lead the calf around for short practice sessions to teach it to set up in response to the halter and show stick.

Photo taken by Bonnie Snezyk
Handling

- Have another person handle the calf while you are at the halter; this trains the calf to remain calm under a judge’s close inspection.
- When leading, walk on the calf’s left side with the lead in your right hand.
- Hold your hand 6 to 12 inches from the animal’s head on the lead strap.
  (This is near the junction of the chain and leather strap on a show halter)
- Firmly grip the lead so your thumb is up and toward you with your little finger nearest the chain. Your wrist is stronger this way and provides better control over the animal.
- Measure the lead strap to be just long enough for control (about shoulder width). It must not touch the ground; if the lead can reach the ground, you or the calf may step on it.
- To prevent injury, do not wrap the halter strap around your hand or fingers.

START TRAINING EARLY AND THINK SAFETY
Handling

Using the Show Stick

Four basic uses for the show stick include:

- Assisting in placing the feet.
- Calming and controlling the animal.
- Keeping the top level.
- For scotch-driving the animal.

When setting up your calf

- Switch the lead strap from the right hand to your left hand quickly and smoothly.
- Switch the show stick from the left hand to your right hand.
- Slowly scratch the calf’s belly a couple of times to help calm the calf.
- Set the calf’s feet in the appropriate position.

Remember, you have two tools in your hands to set the feet - the lead and the show stick.

- Set the rear feet first. To move a rear foot back, push backward on the lead and use the show stick to press (do not jab) the soft tissue between the toes in the cleft of the hoof.

Photo taken by Bonnie Snezyk
Handling

➢ To move a rear foot forward, pull on the lead and use the show stick to apply pressure under the dew claw.

➢ When the rear feet are too close together, apply pressure to the inside of the leg just above the hoof or at the hock, and the calf should stand wider.

➢ You can move its front feet by using your boot or show stick to apply pressure on the foot while pushing or pulling with the halter lead in the desired direction you want the foot to move. Younger, less experienced members are safer using the show stick.

Proper use of show stick on feet.

Placement of the feet depends on what view is desired for the judge and what makes the calf look its best.

➢ When cattle are lined up side by side in a straight line, the feet should be set on all four corners (bearing a full share of the calf’s weight). On this view, the judge is looking at the rear and front of the calf.

➢ When the cattle are lined on the profile (head to tail), set the feet as if a professional photographer is taking a picture. Stagger the rear feet so your near side foot is slightly in front of the foot closest to the judge.
Handling

- As the judge moves to the rear of the calf on profile, an experienced exhibitor will again square the feet. As the judge moves back to the side view, profile the rear feet again.

A heel-to-toe look works best for a profile set-up.
- The heel of one foot is parallel with the toe of the other foot.
- The front feet are set squared or staggered less than the rear feet.
- The toe of the front foot away from the judge should be set back half the width of the hoof on the judge's side.
- By setting the feet in this manner, you give the judge a perception of depth and thickness.
- It also makes it easier to correct a top line and rump structure.

Set up when viewed on the profile.
Handling

When using the show stick to correct a top line

- Apply pressure at the navel or flank with the hook of the show stick if the top is weak and needs to be raised.
- If the rump is steep and the loin is high, apply pressure to this area to bring it down.
- Continue to scratch the calf’s belly to keep it calm.

While showing, always keep the point of the show stick down for safety.

- Keep the stick in your left hand at the handle or about one-third of the way down when walking. This allows its use as an additional control tool if needed.
- If the calf is moving too fast, hold the portion of the stick between your left hand and tip or hook end in front of the calf’s nose.
- To scotch-drive, push forward on the halter with your right hand, and touch the calf with the show stick on its side or rump. This makes the calf think someone is behind it, and it should start to walk.
- “Scotch-driving” is needed when the calf will not lead or walk and no one is around to help you get started.
SHOWING YOUR CALF

Showmanship is an area over which you have the most control when exhibiting your beef cattle. In showmanship, you are judged on your ability to control and present an animal to bring out its best characteristics. Advanced planning and hard work are important keys to becoming a good exhibitor.

Showing beef cattle generates enthusiasm and competition in the show ring and teaches valuable life skills, which include responsibility, making decisions, learning to win or lose graciously, and to instill character. A good showman has a sense for effectively presenting an animal in competition.

- Before the show, walk over the show ring to find any low spots on the surface. This will help you avoid these areas when setting up your calf. If possible, position the calf so the front feet are placed on higher ground than the rear feet.
- Dress neatly and wear sturdy boots (leather are best) for safety. If the calf steps on your foot, its foot will slip off a leather boot more easily than it will slip off a canvas shoe.
- Enter the show ring promptly when the class is called.
- If there are exhibitor numbers, wear the number on the left side so it does not interfere with use of the show stick or leading the calf.
- Know where to line up and how the classes will move through the show ring. If you are not in the first class, watch a class or two to learn specific techniques or show style the judge prefers.
Using the Comb or Cloth

- With haired cattle, carry a scotch comb in your right back pocket or in a comb sheath, with the teeth away from you for safety.
- Use the scotch comb to groom the hair that becomes messed up from the judge’s handling your calf or from another animal bumping into your calf.
- You can use the corner of the comb to level the loin.
- If showing American breeds with short hair, carry a wipe cloth. You can use the cloth in the same way as the scotch comb to groom the hair while in the show ring.

When pulling into line

- "Check" your calf a few feet before reaching your destination to slow the calf. To check the calf, lift up slightly on the halter so the calf knows you are about to stop.
- When walking into the ring, line up where the ring steward indicates. If you are third or fourth in the ring, line up even with the other calves, leaving 3
or 4 feet on both sides of your calf. This allows ample room for all exhibitors to set up.

- Smoothly, yet quickly, get the calf set up with its head high. Be alert, keep a close eye on the calf, keep the feet set square, stay straight in line, and know where the judge is located.
- If your calf is not set square and the judge is nearby, set up your calf. Most judges will wait for you to present the calf at his best.
- Always give the judge the view he is looking for. Try not to stand between the judge and the calf.

When it is time to walk the cattle --

- Move as the judge or ring steward instructs.
- Help the member in front of you in moving a calf if he/she is having trouble. Tap the calf’s rump with your stick, or preferably put your show stick in your right hand and twist the tail of the calf in front of you with your left.
- Let your calf walk out freely. Move at an easy pace, not too slow or too fast.

When it is time to stop on the profile -- Stop in a straight line head to tail.

- Remember to "check" the calf and then stop by lifting the head.
- Allow 4 to 6 feet between your calf and the one in front. This
allows the judge space to move freely around the cattle and helps to prevent calves from mounting or disturbing others in the line.

- Position the feet as discussed earlier.
- Keep the top line level and the calf’s head up.

**Locate the judge and wait calmly.**

- Do not "saw" your calf in half with rapid stick movement while waiting for the judge. Use slow deliberate strokes with the show stick.
- Do not make noises or rattle the chain of the halter.
- The judge may handle the cattle and ask a few questions. As the judge moves around the calf, move a half step back to allow the judge a full view.
- Be prepared to answer questions such as weight, birth date, sire, dam, pregnancy status of your heifer, feeding program, parts of the animal, yield grade, quality grade, and the retail cuts of beef.
- If your calf has not moved and the judge has gone to the next animal, use the scotch comb or wipe cloth to fix any hair that is messed up.
- If your calf has moved out of line, pull out in a clockwise circle and bring the calf back into line.
- Set up and then fix the hair if necessary.
Handling

Be alert and aware of the judge. Look for a sign or motion to be pulled into line for placing.

- This may be another profile or side by side line
- As the judge pulls cattle from the profile line, empty spaces occur. As spaces between cattle become empty, move forward in the line.
- Remember to allow proper distance between calves, and set the calf up at its best.
- By moving forward and filling the empty spaces, it becomes easier for the judge to make comparisons. Once pulled into a side by side line, you are nearing the end of the class.
- Stay alert and set the calf up as positions may continue to be switched.

When turning an animal --

- Always turn to the right (clockwise) unless the ring steward gives other instructions. (Most Manitoba judges accept turning either way, but be sure to ask before the class begins.)
- Pushing the calf’s head away from you prevents the possibility of the calf stepping on your foot, causing harm to you or the calf.
- Note that you pass back through the same hole you left, then to the proper position.
- If positioned up to a rail, do not turn around in the line. Back the calf out by pushing back on the halter with your left hand and applying pressure with your right at the point of the shoulder.
- Pull into the line at the instructed position.
Handling

Switching from position 4 to position 2

Resetting in the same position using position 3

Courtesy and Sportsmanship

- Keep straight lines so the judge can compare all the animals.
- If you are blocking the view of another animal and have space, move so the judge can see all the animals; however, if you are the one hidden, it is your responsibility to be where the calf can be seen. Do not rely on other members since they may not have room to move.
- Avoid bumping, crowding, or hitting other animals.
- If your calf becomes nervous or unruly, remain calm, be patient, and never get discouraged or lose your temper.
Handling

When the judge starts his reasons, the class is over but your job is not.

Continue to work hard and display good sportsmanship.

- Leave the ring in an orderly manner as instructed by the ring steward, and pick up your awards.
- Congratulate the class winners and those who stood ahead of you, or be a gracious winner and encourage those who stood below.

Remember - Showing is a learning experience.

- Leave the ring knowing you have given your best effort.
- Learn from your mistakes.
- Watch other exhibitors, and improve your skills for the next show.
- You are always a winner just by having participated in a worthwhile learning activity.
All Projects  

GROOMING AND FITTING FOR SHOW

Equipment For Grooming

Brushes:
There are a lot of different brushes you can buy, but you can do a good job of grooming with just a good wash brush and a finishing brush.

- A wash brush made of plastic with soft bristles or a plastic wash mitt. Brushing while washing helps to get the animal cleaner.
- A rice root brush is excellent for training the hair of the animal, as it is good for brushing the hair forward. It helps to remove dead hair from the animal.

Combs:
There are a couple of combs that are excellent for grooming.

- Scotch Combs do a good job of grooming the hair in a forward and upward direction. The points of the comb are quite sharp so be careful not to scrape the animal.
- A Fluffer Comb is like a scotch comb, except that the teeth of the comb are further apart. This allows the hair to pop or fluff as the comb is run through the hair.
Handling

**Blow Dryer:**

- Although a blow dryer is not a necessity, it is useful for drying, cleaning dust off an animal, and training the hair. Some come with a heating element that speeds drying which is very useful in colder weather.

![Blow Dryer](image)

**Clippers:**

- If you are going to show your animal you will probably want to borrow or buy a set of clippers. There are different clippers on the market. It is best to choose a set with a good motor and interchangeable heads. Heads can be changed for clipping longer body hair or for close clipping of hair.

- Sheep Head blade for longer hair
- Flat head blade for close cutting

**Scissors:**

- Scissors can be a valuable tool for finishing touches. It's important to have a pair that is sharp because the hair can be quite coarse.
GROOMING PRODUCTS

There is a wide variety of grooming products, and some can be very expensive. Often, the less expensive or homemade products are just as effective.

Soaps/Shampoos

- A mild soap product such as dish soap or shampoo is inexpensive and works well for general washing.
- Some of the commercial livestock shampoos tend to be very drying.

Adhesives

Adhesives are used to keep the hair in place. There are three basic types of adhesives.

- Standard or Leg Adhesive: is rather heavy and slower to dry than other types. It will do for use anywhere on the animal but is especially good on the legs.
- Tail Adhesive: it’s much like the standard adhesive, except that it dries quickly. It is often used for setting tail heads and forming the bush of the tail. It can also be used on the legs when a fuller appearance is needed.
- Body Adhesives: is very light and dries slowly. It is useful in setting body hair and it allows for easy combing through the hair after it has set.

Adhesive Remover

- It’s important to have a good adhesive remover for cleaning adhesives out of the hair after the show. Leaving the adhesive in could damage the hair.
Handling

Show Foams/Shaving Cream

- Foams or shaving cream are sometimes applied to help set hard to manage hair.

Spray/Oils/Hair Coat Enhancement

- These products are used to add sheen and lustre to the hair. Some products can be used daily for hair training purposes, while others are only to be used the day of the show.
Handling

All Projects

GROOMING FOR THE SHOW

Before beginning to groom take a close look at your animal and try to get a mental picture of how you want it to look when you have finished grooming. Study your animal and decide what its strong and weak points are. You will want to make the weak points look as good as possible, and really bring out the strong points. A lot will depend on the hair type your animal has. Long-haired breeds are usually shown with the hair brushed up, while short-haired breeds are shown with the hair brushed down for a slick, more natural appearance. The time of year also makes a difference in how much hair the animal will have.

Let's take a look at grooming, from the first washing to the show ring.

Washing

- Wet the animal from the top down. Apply soap into the stream of water to be sure all the soap doesn't end up on the top of the animal.
- Take your scrub brush and scrub the entire body. The face, legs and underline can be difficult to work on, so spend some extra time getting them clean.
- Rinse the animal from front to back, top to bottom. Be sure all of the soap is rinsed out or your calf might end up with flakey dandruff.

Photos taken by Bonnie Snezyk
Handling

Drying

➢ If you have a blow dryer, be sure that you dry all parts of the animal. The face, the legs, and the belly are the most difficult to dry.

➢ Try to keep the movement of the dryer consistent. If you blow from several different directions, the hair will be going in several different directions.

➢ Blow from front to back, and keep the direction of the nozzle at the same type of angle you use when brushing.

➢ Your may want to brush as you blow.

Brushing/Combing

➢ Brushing/Combing is a very important step in training the hair of the animal. Brushing early in the year will encourage hair growth, stimulate natural hair oils for extra sheen, and keep your animal much cleaner.

➢ Long-haired animals can be brushed forward, and slightly up. Brush the entire body. Don’t forget the outside and inside of the legs.
Handling

Clipping

- Clipping should only be done after the animal is clean and dry.
- Do your first clipping several days before the show. You can do touch up work a day or two before the show.
- Before you begin to clip, stand back and decide what the strengths and weaknesses of your calf are. Think about how you want to clip the animal to make it look its best.

Clipping the Head:

- Clip the face from the poll forward. You want a really short, close clip job on the face.
- Clip from the face down the dewlap to the brisket.
Handling

Clipping the Body:

➢ You will get a more even clip job if you use both hands. Steady the clippers with one hand and hold the clippers with your other hand. Put the free hand under your clippers to help you guide your way through the hair.

➢ When clipping try to make the body look square, especially over the top line and in the hind quarters.

➢ If you leave the hip hair a little longer it can be blended into the hip and hind quarter to make it look more level. The area close to the tail is trimmed very short.

➢ When clipping the legs make them look as square as possible. Don’t take off too much of the hair.

➢ When clipping, try to blend in every part of the body so there are no sudden or hard lines. The animal should look as natural as possible.

Fitting

Fitting is the finishing touches that you do on the day of the show.

➢ Wash and dry your calf.

➢ Pull the hair up on the legs, with your scotch comb. Spray adhesive on the hair as you comb to hold it in place. This is called boning.
Handling

- The legs should look as straight as possible.
- Bone the back legs up to the twist, which is about halfway up the hindquarter.
- After boning, you may need to do a little shaping with the clippers.
- If you have a short-haired animal be sure the knees are really clean as dirt and stains will show up more on short haired animals.
- Work at small areas at a time, check it out, make corrections and then move on to a new area.
- Groom the body by combing upward and forward.
- Spray an oil base conditioner on the hair coat of the body.

Remember that no two animals are exactly alike and that your methods of grooming will change with the hair type and the build of the animal. Groom and fit to bring out the animal's best characteristics.

Photos taken by Bonnie Snezyk
All Members: Please share the following commandments with parents/guardians.

TEN COMMANDMENTS FOR PARENTS

“Doing the right thing” as a parent isn’t always easy. However, the following list of “Ten Commandments” can act as a guide for parents when it comes to teaching their youngsters about the responsibilities of raising and showing animals:

1. Thou shalt not feed, train and care for the animal, for thou art trying to teach the child responsibility.
2. Thou shalt forgive a child for making mistakes in the show ring, for thou hath made mistakes too.
3. Thou shalt not get mad when thy child forgets items in the show box, for one day thou may forget the show box.
4. Thou shalt help the show management for they are doing a job that thou would not want to do.
5. Thou shalt see that thy child is on time for all show activities for thou would not want to wait on another.
6. Thou shall be sure that thy child has the animals entered and the registration papers in order by the designated time.
7. Thou shalt teach the child that winning a blue ribbon is a desirable goal, but making friends and learning about livestock production along the way is a more worthy goal.
8. Thou shalt not complain about the judge for it is his opinion that has been sought.
9. Thou shalt remember that livestock projects are teaching projects, not necessarily money-making projects.
10. Thou shalt remember that the livestock project is a family project that shall be enjoyed and supported by the entire family.

DON'T BE SQUARE ABOUT SAFETY

PREPARATIONS

- Make 9 cards with an X on one side and an O on the other side.
- You will need nine chairs for the Safety Experts and chairs for the two contestants.
- The game show host will need a set of questions and answers.
- The game is played similar to the TV version of Hollywood Squares or, old-fashioned Tic-Tac-Toe.

PLAYING THE GAME

- Place nine chairs in a square. Have nine people sit in the chairs, giving each one of them a card, one side marked with an O and one side marked with an X.
- Select two additional people as contestants A & B to compete against each other.
- Assign O to one person, X to the other. After determining who will go first, one contestant (A) chooses a person in one of the squares.
- The Master of Ceremonies asks a question of the person in the selected square.
- The person can either give the correct answer or bluff with a made-up answer if he doesn't know the correct one.
- Contestant A has to either agree or disagree with response.
- If the correct response is given, contestant A gets the square.
- The person in that square holds up an X or O.
- If he / she misses, contestant B gets the square.
- The only exception to this is - if there are already two marks in a row a contestant cannot win by default. The other person has to get the answer correct to have a winning row.
- The object is to get three marks in a row.
QUESTIONS FOR THE GAME-SHOW HOST

1. Best place for children to be when looking at large animals. **Outside the fence**

2. Shot given to animals to prevent them from getting an infectious disease. **Vaccination**

3. Emotion animals can sense from a human. **Fear**

4. Location where animal weight is evenly balanced from back to front. **Point of balance**

5. Animal most often associated with having rabies, which can be fatal if caught. **Skunk**

6. What measures should be taken to prevent diseases? **Clean animal facilities, immunizations, and sanitary practices**

7. Household animal most likely to cause serious blood infections from bites or scratches (Toxoplasmosis). **Cat**

8. You can get this infection from stepping on a nail, especially if you are in a livestock area. **Tetanus**

9. All animals can be ______________. **Dangerous / unpredictable**

10. The reason you should never get between a mother animal and its babies. **Maternal instinct or protective**
11. What is the area around an animal where they feel safe; this zone can be determined by slowly walking up to the animal. **The flight zone**

12. Chutes can be equipped with what to prevent injury? **Anti-kick or back-up bars**

13. Diseases that can be transmitted to humans from animals. **Zoonoses**

14. Where are an animal’s blind spots located? **Directly in front or behind the animal**

15. From which direction should you never approach an animal? **The back or rear**

16. What two items should you be wearing if you intend to ride a horse? **Sturdy footwear and an approved helmet**

17. What should your first concern be when handling, milking, or showing cattle? **be visible and safety**

18. The way to approach animals to prevent spooking. **Talk quietly, walk slowly**

19. Name one of the gases produced in swine confinement facilities that can be harmful to humans and animals. **Carbon monoxide, carbon dioxide, ammonia, hydrogen sulphide**

20. This disease can be contracted through the bite of a tick. **Lyme disease or Rocky Mountain spotted fever**
JUDGING

JUDGING MARKET ANIMALS

JUDGING TERMS AND REASONS

JUDGING REASONS
Judging beef is looking at live animals to compare and rank them. This is not just something we do at 4-H achievements and fairs. Feedlot owners judge their animals to decide which ones are ready to sell. Buyers at the auction mart judge animals to decide which ones to buy. It takes practice to know which animals are going to produce the best carcass. Judges have to “undress” the steer with their eye to see the meat below and try to decide the cutability of the animal while it is still alive.

**Checking for fat cover:**

In judging market animals, the most important thing to look for is how well it is finished, or fat covering. There are 5 areas where you should check for the amounts of fat and muscle. These are the brisket, flank, twist, rump, and forearm. Look carefully at the brisket from both the front and the side.
The brisket is under the breastbone and the breastbone has very little muscle over it. If the brisket is deep and full it is full of waste fat, not muscle. If there is excess fat in the brisket, there will be waste fat in other areas of the carcass.

Now have a look at the flank. View it from the side. There is no muscle or meat, or bone in the flank area. It is just skin and tough connective tissue. If the flank is deep and full it has to be fat, which would suggest that there will be waste fat in other areas.
Judging

Look at the **forearm** from the front. The forearm is all muscle and bone, with no fat. If the forearm is bulging and muscular looking then it is a sign that the animal will have well developed muscles all over its body.

From behind the animal and check out the **twist area**. A deep, full twist is a sign of fat, not muscle. If the animal is full all the way down to the hock, it has to be fat because the muscles do not go all the way down to the hock.
Check out the rump from behind the animal. A good animal will have a thick hind end. Good muscling should make the rear look curved or rounded. If the animal has a flat, square rump, it will be fat. Muscles don’t give that square or rectangular look.

The stifle area of a good market animal should be thick. Very little fat is produced in this area, so if it is thick through the stifle it will be meat. Looking from behind, check out how the animal places its hind legs. The hind legs are attached up in the hip area. If there is lots of meat in the hip area, the legs will be pushed apart and the animal will stand wide.

Evaluating Finish
A correctly finished steer should:

- Be thick or widest through the middle of the round.
- Be wide at the pins, with a wide, thick back, loin and rump that is curved and rounded.
- Stand and walk wide on the hind legs.
- Have good muscling well down on the legs.
- Show evidence of muscle creases and bulges.
- Have a large rib-eye with minimum covering of finish.
The best place to look for finish on a market animal is over the ribs. Using your whole hand, feel the ribs about halfway down. There should be about 1 cm of fat between the hide and the bones. Check the shoulder blade with your hand. There is no muscle in this area and there should only be a thin layer of fat over the bone.
The ideal Steer

- Long level rump
- Bold spring of rib
- Clean neck & cheeks
- Smooth shoulder
- Trim neat dewlap & brisket
- Muscular arm & forearm
- Deep wide chest & floor
- Rugged bone
- Correct set of front legs

- Naturally thick muscular top
- Wide through the rump
- Natural depth and thickness through centre and lower round
- Long deep stifle
- Correct set of hocks
- Legs set wide apart

- Topped: Deep ribbed
- Deep bodied
- Correct front legs

- Clean fronted
- Smooth shoulder
- Deep wide chest
- Rugged bone
Narrow, Shallow, Light-muscled Steer

- Narrow topped
- Tight ribbed
- Flat, shallow rear quarter
- Narrow stifles
- Cut up in flank
- Light-muscled forearm
- Shallow, narrow chest floor
- Legs set close together
- Fine boned

- Narrow topped
- Tapering rump
- Shallow ribbed
- Shallow bodied
- Narrow through lower quarter
- Shallow quarter and stifles
- Stands narrow behind
Over-conditioned, Light-muscled Steer

- Square full tailhead
- Heavy through neck and shoulders
- Ridge along edge of loin
- Patchy over tailhead
- Excess condition over forerib
- Flat shape to rear quarter
- Wasty throat and dewlap
- Soft at base of quarter
- Full flanks
- Deep, full brisket
- Square shape to body

- Square topped
- Heavy fronted
- Thicker at top than through lower quarter
- Deep, square body
- Narrow through lower portion of quarter
- Soft at base of quarter
In a judging class you will be asked to give written or oral reasons for placing four market animals. After looking and checking the animals closely you will have to give reasons for why you picked your first choice over your second choice, why you picked your second choice over your third choice, why you picked your third choice over your fourth choice, and why you placed your fourth choice last. Things to remember when giving your reasons:

- **Give POSTIVE reasons for why you choose one animal over another.**
  
  Example: "I choose #2 animal over #4 animal because it is wider and thicker over the rump area.

- **Do not give NEGATIVE reasons such as, "I choose #2 animal over #4 animal because #4 is narrow through the rump. Always state why you like #2 over #4, not why you don't like #4 as much.**

- **You CAN use NEGATIVE reasons when you are talking about your last place animal. Example: I place #1 animal fourth because it lacks proper finish and muscling.**

"Putting some serious thought into judging”

Photo courtesy Ohio Cattlemen's Association and Ohio Beef Council
The following are some terms that can be used for describing different points about animals in a judging class. Make up one more term of your own for each section.

**General Terms:**
- Carrying more uniform thickness from front to rear.
- More desirable meaty type.
- Longer, larger, trimmer, more correctly finished steer.
- ________________________________

**Head, Style and Breed Character Terms:**
- Shows more desirable breed character through head, neck and shoulders.
- Shows more desirable balance.
- More stylish and alert.
- ________________________________

**Fore Quarter Terms:**
- Fuller in the heart with a more desirable spring of rib.
- More smoothly blended through the neck and shoulder.
- Shows more muscle expression in the forearm.
- ________________________________
Judging

Ribs, Back and Loin Terms
- Straighter and stronger over the topline.
- Thicker, meatier, more heavily muscled loin.
- More correctly finished over the top and loin.

Hind Quarter Terms
- More bulging rear quarters.
- Wider, meatier steer.
- Extremely thick and muscular through the center part of the round.

Legs and Bone Terms
- Straighter, stronger legged animal.
- Moves straighter and truer on the walk.
- Larger framed steer.

Finish and Carcass Terms
- More uniform in his condition.
- More uniform in fat cover.
- Cleaner over the loin edge.
# 4-H Judging Card

**NAME or NUMBER:**

4-H CLUB: _______________________________________________________________________

AGE: ___________________________________________________________________________

**NAME OF CLASS:** _______________________________________________________________________

**PLACINGS:**

<table>
<thead>
<tr>
<th>1&lt;sup&gt;st&lt;/sup&gt;</th>
<th>2&lt;sup&gt;nd&lt;/sup&gt;</th>
<th>3&lt;sup&gt;rd&lt;/sup&gt;</th>
<th>4&lt;sup&gt;th&lt;/sup&gt;</th>
<th>PLACINGS SCORE</th>
<th>REASONS SCORE</th>
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WRITE REASONS BELOW (give main points):

I place _______ over _______ because:

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________

I place _______ over _______ because:

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________

I place _______ over _______ because:

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________

MAIN REASON FOR BOTTOM PLACING:

__________________________________________________________________________
Using the information about judging, practise using the judging terms by placing this group of four market steers. You can use the scorecard on the previous page.

**#1 Steer**

![Image of #1 Steer]

**#2 Steer**

![Image of #2 Steer]
WHAT IS A CARCASS?

CUTS OF THE CARCASS
WHAT IS THE CARCASS?

The carcass is the part of the animal that is left after the head, feet, hide and internal organs are removed.

The shaded area is where the higher priced cuts are found. They include:

1. Loin
2. Rib
3. Rump
4. Round

The lower priced cuts include:

5. Chuck
6. Plate
7. Flank
8. Brisket
9. Shank
The Beef Carcass not only supplies food products for our diet, but also supplies hundreds of products we use every day. On average, 98% of an animal is used — very little is wasted. Approximately 55% of the animal is used for meat or edible products, and the remaining 45% is inedible or bi-products.

All Projects

✓ Put a check beside the items listed below that you believe are bi-products of the beef animal. You can check your answers on page 135.

Margarine    Glue    Insulation    Explosives    Leather
Medicine    Sandpaper    Buttons    Piano keys    Crayons
Candles    Ice cream    Ink    Camera film    Fertilizer
Marshmallows    Toothpaste    Cough medicine    Fabric softener    Tires
Make-up brushes    Violin string    Bio-diesel fuel
THE BEEF CARCASS

Diagram courtesy of The Canadian Food Inspection Agency
Carcass Evaluation

All Projects

Answer the questions about the following cuts of meat. You may have to go to the grocery store for the answers.

What is the store price for a sirloin steak? Per kg. Total

What is the store price for a sirloin tip roast?

What is the store price for lean ground beef?

What is your favourite cut of beef?
CHALKING UP THE CUTS!

PREPARATION

- Locate a live animal that is relatively close to marketing size, and quiet enough for the members to handle.
- You will need some chalk. The sidewalk chalk works best because it is larger and makes more visible lines.
- Take the diagram of the carcass with you for the members to refer to.

ACTIVITY

- Starting at the front or rear, have the members take turns marking out the carcass cuts on the live animal’s body.
- It’s easy to make corrections – just brush off the chalk and try again.
- When the marking is done, have the members do a hands-on to check for fat cover and muscling.
- Point out the differences between the more expensive and less expensive cuts.
- Perhaps a group picture with the animal might make a good display for achievement.
ANAEROBIC DECOMPOSITION: When organic material breaks down due to micro-organisms but without air being part of the process.

ANALYSIS: In feed tests, feeds are studied, and broken down to show the amounts of the different nutrients, vitamins and minerals.

BIRTH CANAL: The area after the calf leaves the uterus.

BUFFER STRIP: A row or strip of trees between a water way and the area where manure is being spread.

CARRIER: In vaccines, a carrier is a liquid that is used along with the vaccine to help the vaccine get into the animal's body system.

CERVICAL CANAL: The part of the birth canal where the calf passes toward the pelvic bones.

COLOSTRUM: Is the first milk produced by a mother. It is high in energy and is a natural immunization against diseases.

CONTAMINATION: When water or soil becomes dirty or polluted.

CORE BARREL: A tool with a barrel that you push into hay bales for a feed test. The barrel fills when you push it into the bale, taking a little hay for every inch it goes into the bale.

DIET: The mixture of feeds you are giving your animal.

DISSOLVED OXYGEN: Oxygen that becomes mixed in with the water and can be used by fish as they take in the water.

ENCODED CHIP: A chip that gives off a different signal for each tag.
EROSION: When soil is worn down or washed away by weather.

EXPLOITATION: To use something or someone for a person’s own benefit, even though it may be harmful to the person or animal.

FILTER STRIPS: Areas of trees or vegetation that help to filter run-off water around a livestock operation.

GROUND WATER: Water that is found below the ground, and is often brought above ground by a well system.

HOST: When talking about parasites, a host is an animal that the parasites live on - they need the host animal to live and multiply.

INCORPORATE: To mix in. An example would be mixing manure into soil in the field.

IMMUNITY: When an animal has antibodies that keep it from catching a disease or illness.

INTRAMUSCULAR: In the muscle.

KILLED VIRUS: Is made from dead organisms of the disease it is attempting to prevent. It is used with a liquid carrier.

LABORATORY: A place where research is done by experts like scientists.

LARVAE: The stage just before the worm stage.

LIGAMENT: A strong string-like part that helps connect between the joints.

LIVE VACCINE: An immunity vaccine that is made of live organisms of the disease.

MARBLING: Fat that shows up in the meat.
MICROBIAL ACTIVITY: Microscopic organisms breaking down organic material.

ORGANIC MATTER: Things like straw and leaves break down into organic matter.

PLACENTA: The afterbirth - what is left of the sack the calf grew in.

PELVIC AREA: The part of the birth canal where the calf passes through the pelvic bones.

QUARANTINE: Keeping an animal separate from other animals.

RATION: How much feed an animal gets daily.

RECHARGE AREAS: Areas where groundwater gathers after being filtered through the various layers of soil.

SCOTCH DRIVING: Used when the calf won't move forward for you. You push on the halter and tap the calf on the rump with the show cane.

SETTLING BASIN: A lower slough like area where manure can be gathered from run-off.

SETBACKS: The distance back from a water source where manure cannot be spread.

SUBCUTANEOUS: Under the skin.

SYSTEMIC INSECTICIDE: One that kills both internal and external parasites.

UTERUS: Where the calf grows inside its mother.

VACCINATION: A needle that is given to animals to prevent diseases and illnesses.

VENTILATION: Something that moves the air to get rid of stale air and bring in fresh air.

VULVA: The outer area of the beginning the cow's vagina and birth canal.
Page 44: 1, 1, 2, 2, 1, 3, 3.

Page 79: Vet, Auction Mart, Cattle Trucker, Cattle buyer, Rail cars, Butcher, Restaurant Owner, Machinery Salesman, Herd Rider, Researcher/Scientist, Carpenter, Farmer/Feedlot operator, and meat grader.

Page 128: All of them
Thank-you to the following for sharing their information and resources:
  Saskatchewan 4-H Council
  Alberta 4-H Council
  Alberta Agriculture, Food and Rural Initiatives
  Texas Association of Extension 4-H Agents
  Ohio State University – Agriculture and Natural Resources
  John Popp – Farm Production Extension - Livestock
  Manitoba Agriculture, Food and Rural Initiatives
  Brenda Warrener
  Bonnie Snezyk
Now that you have finished this project, it is time to think about how you will share your experiences and knowledge with others. You may put your new skills to work by helping at a community event or at your club Achievement or teaching others about your topic. The goal of the Showcase Challenge is to help highlight your new skills and help you understand how you can use them. It can be an opportunity to receive feedback from others on your project. So go back through your manual and find some highlights of your learning (what you are proud of) and think about how you will “showcase” it.

Dream it!

Here are some Showcase Challenge Suggestions:

- Demonstrate something you made or learned about
- Make a poster or display
- Act out a play
- Make a video or slideshow
- Teach a class
- Organize a special event
- Use your new skills to help with the Club Achievement plans
- Or come up with your own idea. It is up to you and your leader!

My Showcase Challenge Plan

My showcase idea: ____________________________________________________________

What materials and resources do I need? _______________________________________

Who do I need to help me? ___________________________________________________

When do I need to have things done by? _______________________________________

Do it!
Insert or attach your finished product or a photo of you sharing your skills in your Showcase Challenge.

Dig it!
Now that you have showcased your project skills;
• How did your Showcase Challenge go?

• What would you do differently next time?

• How will you use your new skills in the future? (*in different situations*)
**My 4-H Portfolio Page**

Name: __________________ Date: ___________ Year in 4-H: ______
Club: _______________ Hours Spent on 4-H: _____

**Skills Chart**
To be completed by the leader and the member based on observations and conversations throughout the project. This generic 4-H Portfolio Page is for use with all projects without a project specific 4-H Portfolio Page printed in the manual.

<table>
<thead>
<tr>
<th>Meeting Date</th>
<th>Activities we did... During your project you did activities to help you learn new skills. Identify these activities below.</th>
<th>Skills I learned... Identify the skills learned in the activities completed in your project.</th>
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Additional Comments/Activities:

**Leader Point of Praise!**

I am most impressed by...

I acknowledge that the member has completed the 4-H project requirements.

Leader’s Signature: ____________________________
Above and Beyond!

In addition to project skills, 4-H also increases skills in meeting management, communications, leadership, community involvement through participation in club, area, or provincial 4-H events or activities. List below any activities you participated in this year in 4-H. (Some examples include Executive Positions Held, Workshops, Communication, Community Service, Rally, Bonsiels, Conferences, Judging, Camps, Trips, Awards, Representation to Area or Provincial Councils, etc)

_____________________________________       _______________________________________
_____________________________________       _______________________________________
_____________________________________       _______________________________________
_____________________________________       _______________________________________
_____________________________________       _______________________________________
_____________________________________       _______________________________________ 

**Feel Free to add additional pages that include awards, certificates, new clippings, photos or other items that describe your 4-H involvement.

Member Point of Pride!

What I learned...

What I need to improve on...

What I want others to notice...

Member’s Signature: _______________________________

Point of Praise! Another’s perspective on your achievements in 4-H. (community professionals, 4-H club head leader, friends of 4-H)

I am most impressed by...

I believe that you have learned...

In the future I encourage you to...

Signature: _______________________________
4-H Achievement

4-H Achievement is... a 4-H club celebration when members have completed their projects. Achievements are planned by the club to give recognition to members and leaders for their accomplishments in their 4-H projects and club activities.

A 4-H Achievement can take many different formats: from choosing a theme, to member project displays, to members using their new skills for the event (entertainment, food, decorating, photographer, etc.), to members presenting their project to the whole group, the options are endless and open to the creativity of the members and leaders in each club!

Clubs may also plan their Achievement to promote 4-H to the community or to recognize sponsors and others who have helped the club.

Members and leaders - be sure to check your project books for the project completion requirements, so you will be ready for your club’s Achievement celebration!

If you have any questions, comments or suggestions for this or other 4-H projects contact:

Manitoba 4-H Projects
Manitoba Agriculture
1129 Queens Avenue
Brandon, MB R7A 1L9

Email: 4h@gov.mb.ca
Phone: 204-726-6613
Fax: 204-726-6260

This manual is for educational use only and is not intended as professional advice.

For more information about 4-H and the many 4-H opportunities available please visit

http://www.gov.mb.ca/agriculture/4-h/
What is 4-H?

4-H is an international youth organization involving more than 7 million members in 80 countries around the world.

In Canada, 4-H began in 1913 in Roland, Manitoba as a community-based organization dedicated to growth and development of rural youth. Today’s 4-H program reaches both farm and non-farm youth across Canada. The motto of “Learn To Do By Doing” is embodied in the program, as 4-H focuses on skill development as well as personal development of life skills such as communications, leadership and citizenship.

4-H Motto

“Learn To Do By Doing”

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.

All project materials are available in alternate format upon request.

Manitoba 4-H project material is developed by Manitoba Agriculture