Beef 4-H Series
Explore Beef 1 - Building Beef Skills

Member and Leader Manual

For members who are 8 to 9 years of age. This project is presented in a workbook style which includes the records portion of the project. It builds on the material presented in Cloverbud Beef on the topics of selecting, feeding, facilities, health, and handling. The basics of judging are also presented. Members can choose a steer or a heifer, and the calf can be a yearling or a current year calf.

- Draft 2017 -

Learning is 3D!

To help you get the most out of your learning, each project meeting has the following parts:
- **Dream it!** Plan for success
- **Do it!** Hands on learning
- **Dig it!** What did you learn?
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.
• Complete the Speaking Up activities on page 84-86.
• 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.

M4HC Cloverbud Safety Policy

Policies for Cloverbuds working with Livestock

All Cloverbud members must be within arm’s reach of a capable and experienced adult, when working with livestock. The Cloverbud member to adult ratio must always be 1:1, in these scenarios. In the case of riding (equine), member must be within view of the adult (specific distance guidelines to be determined).

The size of project animal used by a Cloverbud, is at the discretion of the parent and/or leader. This decision should be based on an assessment of the skills and abilities of the member, and temperament of the animal, as outlined in the M4HC Safety Guidelines to be developed.

That decisions regarding showing of animals in a competition should remain at the discretion of the club and/or the event administration.
**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!
Unit 2

Building Beef Skills

Member’s Manual
Printed 2007
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>Answer Page</td>
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</table>
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. These can be found on pages 19, 23, 26, 36, 38, 39, 43, 51, 54, 61, 64, 81, and 87.

- Exercises and information are labelled as Market Animal, Heifer Project or All Projects at the top of each page, depending which project it is for.

- Display your project book at your Achievement.

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

INTRODUCTION TO BUILDING BEEF SKILLS

In the Building Beef Project you will learn about:

- The 4-H program.
- Selecting, feeding, caring, and housing a beef calf.
- Training, grooming, and showing a beef calf.
- Basics of Judging

IDEAS FOR ACHIEVEMENT:

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

BEEF TALK

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

When you see the “Stay Safe” 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 nine years old. It is written at a level that most nine year olds will be able to read. Age nine is only a guideline, and older new members may wish to do this book before moving on to the more advanced books. If you think that your member is having problems reading and understanding the material, you may have to give them a little extra help.

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. They may need a little help with “My Beef Animal Record” in the Selection Section, and with the exercises on what their calf is eating in the Nutrition Section.

There are five main sections in all of the units. They are Selection, Health, Nutrition, Facilities, and Handling. The title pages for each section are in the same format in all of the 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. For example: In Unit 1 and 2 there is some information on 4-H that is replaced in Unit 3 with Carcass Evaluation.

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 section 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 of the book. Ideas for Achievement can be found on pages 6 - 15.
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 to add to this.

- A “Skillathon” Achievement
- “Farm to Farm” Achievement
- “In the Pen” Achievement

If your members are looking for the type of achievement that emphasizes all aspects of production, the score cards on pages 8-10 will be useful. It is used to evaluate the total product rather than just the live animal as it appears on show day. It rewards members for their learning and effort for the entire year. 4-H youth who have learned about proper selection, care, and nutrition can be rewarded for their successes in those areas by using this scorecard.

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.
PROJECT ANIMAL SCORECARD

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 type of judging 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 judging, contact your local Manitoba Agriculture, Food and Rural Initiatives GO Centre/Office.

Quality Equation

- Quality People
- Quality Experiences
- Quality Projects
## Beginning Beef Scorecard

<table>
<thead>
<tr>
<th>Number</th>
<th>Birth Weight</th>
<th>End weight</th>
<th>ADG</th>
</tr>
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<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### CHARACTERISTICS/TRAITS

<table>
<thead>
<tr>
<th>Trait</th>
<th>Low</th>
<th>Fair</th>
<th>Avg.</th>
<th>Good</th>
<th>Excellent</th>
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</thead>
<tbody>
<tr>
<td>Length</td>
<td>2</td>
<td>4</td>
<td>6</td>
<td>8</td>
<td>10</td>
</tr>
<tr>
<td>Legs</td>
<td>2</td>
<td>4</td>
<td>6</td>
<td>8</td>
<td>10</td>
</tr>
<tr>
<td>Feet</td>
<td>2</td>
<td>4</td>
<td>6</td>
<td>8</td>
<td>10</td>
</tr>
<tr>
<td>Muscling</td>
<td>2</td>
<td>4</td>
<td>6</td>
<td>8</td>
<td>10</td>
</tr>
<tr>
<td>Overall balance</td>
<td>2</td>
<td>4</td>
<td>6</td>
<td>8</td>
<td>10</td>
</tr>
<tr>
<td>Temperament</td>
<td>2</td>
<td>4</td>
<td>6</td>
<td>8</td>
<td>10</td>
</tr>
</tbody>
</table>

### SCORE

#### HEALTH

<table>
<thead>
<tr>
<th>Condition</th>
<th>Fair</th>
<th>Good</th>
<th>Excellent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hair Coat</td>
<td>3</td>
<td>7</td>
<td>10</td>
</tr>
<tr>
<td>Clear eyes/nose</td>
<td>3</td>
<td>7</td>
<td>10</td>
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### RATE OF GAIN

<table>
<thead>
<tr>
<th>Fair</th>
<th>Good</th>
<th>Excellent</th>
<th>SCORE</th>
</tr>
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<tbody>
<tr>
<td>10</td>
<td>15</td>
<td>20</td>
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### TOTAL SCORE

<table>
<thead>
<tr>
<th>Quality Equation</th>
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<tbody>
<tr>
<td><strong>Quality People</strong></td>
</tr>
<tr>
<td><strong>Quality Experiences</strong></td>
</tr>
<tr>
<td><strong>Quality Projects</strong></td>
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</table>
## Market Animal Scorecard

<table>
<thead>
<tr>
<th>Number</th>
<th>Weight</th>
<th>A.D.G.</th>
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</table>

### ***LEAN YIELD***

<table>
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<th>Yield Grade</th>
<th>Range</th>
<th>Score</th>
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<tr>
<td>High</td>
<td>&gt;61.0%</td>
<td>20</td>
</tr>
<tr>
<td>Medium</td>
<td>60.0-60.9</td>
<td>18</td>
</tr>
<tr>
<td>Low</td>
<td>59.0-59.9</td>
<td>16</td>
</tr>
<tr>
<td>High</td>
<td>58.0-58.9</td>
<td>14</td>
</tr>
<tr>
<td>Medium</td>
<td>56.0-57.9</td>
<td>11</td>
</tr>
<tr>
<td>Low</td>
<td>54.0-55.9</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>&lt;53.9%</td>
<td>5</td>
</tr>
</tbody>
</table>

Maximum Score Available 20

### ***USEFULNESS EVALUATION***

<table>
<thead>
<tr>
<th>Trait</th>
<th>Score Range 1 – 9</th>
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</thead>
<tbody>
<tr>
<td>Total Muscling</td>
<td>Low 1 Fair 3 Avg. 5 Good 7 Excellent 9</td>
</tr>
<tr>
<td>Total Trimness</td>
<td>Low 1 Fair 3 Avg. 5 Good 7 Excellent 9</td>
</tr>
<tr>
<td>Growth/Frame</td>
<td>Low 1 Fair 3 Avg. 5 Good 7 Excellent 9</td>
</tr>
<tr>
<td>Structure/Balance</td>
<td>Low 1 Fair 3 Avg. 5 Good 7 Excellent 9</td>
</tr>
</tbody>
</table>

Maximum Score Available 36

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

<table>
<thead>
<tr>
<th>A.D.G.</th>
<th>B</th>
<th>A</th>
<th>AA or Better</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.4 or &lt;</td>
<td>14</td>
<td>30</td>
<td>42</td>
</tr>
<tr>
<td>2.6</td>
<td>17</td>
<td>33</td>
<td>45</td>
</tr>
<tr>
<td>2.8</td>
<td>19</td>
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</tr>
<tr>
<td>3.0</td>
<td>21</td>
<td>37</td>
<td>49</td>
</tr>
<tr>
<td>3.2</td>
<td>23</td>
<td>39</td>
<td>51</td>
</tr>
<tr>
<td>3.4</td>
<td>25</td>
<td>41</td>
<td>53</td>
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Maximum Point Spread/Grade 11

### Comments:

<table>
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<tr>
<th>Beef Live Weight</th>
<th>Bonuses</th>
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<tbody>
<tr>
<td>&lt;1050</td>
<td>0</td>
</tr>
<tr>
<td>1051-1150</td>
<td>+3</td>
</tr>
<tr>
<td>1151-1350</td>
<td>+5</td>
</tr>
<tr>
<td>1351-1450</td>
<td>+3</td>
</tr>
<tr>
<td>&gt;1451</td>
<td>0</td>
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TOTAL (Max. 114)
## Replacement Heifer Scorecard

<table>
<thead>
<tr>
<th>Number</th>
<th>Weight</th>
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<th>Scan Data</th>
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### ***USEFULNESS EVALUATION***

<table>
<thead>
<tr>
<th>Trait</th>
<th>Low</th>
<th>Fair</th>
<th>Avg.</th>
<th>Good</th>
<th>Excellent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Muscling</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Trimmness</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Growth/Frame</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Balance</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Length</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Head and neck</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Legs</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Feet</td>
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<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Udder</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Pins</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Vulva</td>
<td>1</td>
<td>2</td>
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<td>4</td>
<td>5</td>
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<tr>
<td>Temperament</td>
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<td>2</td>
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</table>

Maximum Score Available 60 points

### Score

#### ***GAIN***

<table>
<thead>
<tr>
<th>Body Conditioning Score</th>
<th>A.D.G. 1 – 2 lbs/day</th>
<th>Points</th>
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<tr>
<td>BCS 1</td>
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<tr>
<td>BCS 2 or 3</td>
<td>10</td>
<td></td>
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<tr>
<td>BCS 4 or 5</td>
<td>25</td>
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<tr>
<td>BCS 6 or 7</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>BCS 8 or 9</td>
<td>10</td>
<td></td>
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</table>

Maximum Score 30

#### ***BREEDING SUCCESS***

<table>
<thead>
<tr>
<th>Breeding</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heifer Cycling</td>
<td>5</td>
</tr>
<tr>
<td>Breeding Attempted</td>
<td>5</td>
</tr>
<tr>
<td>Heifer Pregnant</td>
<td>Bonus 10</td>
</tr>
</tbody>
</table>

Maximum Score 20

#### TOTAL SCORE

Possible 110 points

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10
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 difficulty 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 placings 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 four 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.

<table>
<thead>
<tr>
<th>Emily Edwards, DVM</th>
</tr>
</thead>
<tbody>
<tr>
<td>100 Quality Avenue</td>
</tr>
<tr>
<td>Hometown, MB R7A 16Z</td>
</tr>
<tr>
<td>204-555-5050</td>
</tr>
</tbody>
</table>

Owner: Jennifer Wilson  
Date: July 3, 2006

Animal ID: Hereford #351  
Indications: Foot Rot

Directions: Give 1 cc 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.
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 previous pages could be used to determine scoring for each calf. For extra learning, each member could be responsible for setting up one skill station or activity at their 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, or use the scorecards given on previous pages in this book. 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: Ontario Farm Council (FAC), 1992, pg 4.2. "Dr. Frank Hurnik"
Facts about 4-H
The 4-H pledge
Frisco fox says
FACTS ABOUT 4-H

➢ The official 4-H colors in Canada are Green and White. Green represents agriculture and young people. White stands for purity.

➢ The national 4-H emblem is a green four-leaf clover with the letter “H” on each leaf, and the word Canada forming the base.

4-H CLUB PLEDGE

The four “H’s” stand for Head, Heart, Hands and Health.

I PLEDGE

My HEAD to clearer thinking,
My HEART to greater loyalty,
My HANDS to be larger service.
My HEALTH to better living.

For my club, my community, and my country.
All About 4-H

All Projects

FRISCO FOX SAYS:
Insert the correct answers in the clover leaf.

The official 4-H colors in Canada are:

and

In the 4-H Pledge the 4 H's stand for:

The 4-H members belong to a:

4-H members pledge their heads, hearts, hand and health to their:

and

Learn to Do by Doing is the 4-H:
Choosing a 4-H Calf
My Beef Animal Record
CCIA Tags
Activities

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 surrounding you have planned for it.
Heifer Project

Choosing your calf is an important part of your beef project. You can choose either a **heifer** or a **steer**. Perhaps you are going to use your beginning beef calf for your project. If you have decided to choose a heifer to breed, here are some things to watch for.

- Does the animal walk properly? The legs should be placed squarely under her and her toes pointed straight ahead. Good legs are important for a heifer as she will carry a calf and graze on pastures.
- Is the animal healthy? She should be able to raise several calves and maintain good health. Does the heifer have four fairly equal sized **teats** and a good **udder**?
- Does the heifer have a good “**record**”? If you can, check to see if the calf’s mother (dam) has a record of having healthy calves each year? A **dam** usually passes this ability on to her heifers. What does the father (**sire**) look like? Does he have good physical features?

![Diagram of heifer courtesy of Kansas State University.](image)

**Does the calf seem to be calm and tame, so it will be easy to train and handle. A calf that is fairly calm will make working around it safer for you.**
Market Animal Project

If you have decided to choose a Market Animal, here are some things to watch for.

- How is the animal built? Does it have a wide, thick rib and loin; a long, wide level rump; a deep thick round? Meat from these parts sells for the most money.
- Will it grow to meet your goal? The animal should have a fairly large frame size so that it can continue to put on weight and stay lean.
- Will it gain weight quickly? The faster that an animal puts on weight, the sooner it will be ready for market.
- Does the animal appear to be healthy? Watch for eye and horn infections, poor legs and feet, and breathing problems.
- You can choose either a heifer or a steer for a market animal. Keep in mind that a heifer might finish earlier, at a lighter weight. A steer might have a better rate of gain and usually will sell for more.

Diagram of steer courtesy of Kansas State University.

Does the calf seem to be calm and tame, so it will be easy to train and handle? A calf that is too nervous increases your own safety risk.
Selection

**All Projects**

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
Does your calf have a Canadian Cattle Identification Agency tag? If you bought a calf from outside your own farm, it should have a tag on it when you pick it up. If you chose a calf from your own farm, you will need to put a CCIA tag in its ear before you sell it or remove it from the farm. If the calf should become ill, it can be traced back to the farm it was born on. The tag can be identified through radio frequency.
This is an example of how to fill in your 4-H Beef Animal Record

<table>
<thead>
<tr>
<th>Year</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Animal</td>
<td>heifer</td>
<td>heifer</td>
<td>heifer</td>
<td>steer</td>
<td>steer</td>
</tr>
<tr>
<td>Birth Date</td>
<td>Feb 26</td>
<td>Feb 26</td>
<td>Feb 26</td>
<td>Mar 10</td>
<td></td>
</tr>
<tr>
<td>Breed of Sire</td>
<td>LM</td>
<td>LM</td>
<td>LM</td>
<td>LM</td>
<td>BA</td>
</tr>
<tr>
<td>Breed of Dam</td>
<td>SM</td>
<td>SM</td>
<td>SM</td>
<td>LM/SM</td>
<td>BA</td>
</tr>
<tr>
<td>Tag/Tattoos/Brand</td>
<td>59264</td>
<td>59264</td>
<td>59264</td>
<td>22015</td>
<td>22300</td>
</tr>
<tr>
<td>Birth Weight</td>
<td>94 LB</td>
<td>94 LB</td>
<td>94 LB</td>
<td>96 LB</td>
<td>110 LB</td>
</tr>
</tbody>
</table>

**CONTINUATION**

**HEIFER**

| Breeding Date | May 5 |
| Type of Breeding | Bull |
| Sire | LM |
| Preg. Check Date | Oct. 12 |
| Birth Date | |
| Calf Birth weight | 96 LB |
| Sex | male |
| Tag/Tattoos/Brand | 22015 |
All Projects

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 birth or other dates are unknown, give an approximate date.

<table>
<thead>
<tr>
<th>MY 4-H BEEF ANIMAL RECORD</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Year</strong></td>
</tr>
<tr>
<td><strong>Project Animal</strong></td>
</tr>
<tr>
<td><strong>Birth Date</strong></td>
</tr>
<tr>
<td><strong>Breed</strong></td>
</tr>
<tr>
<td><strong>Breed of Sire</strong></td>
</tr>
<tr>
<td><strong>Breed of Dam</strong></td>
</tr>
<tr>
<td><strong>Tag/Tattoos/Brand</strong></td>
</tr>
<tr>
<td><strong>Birth Weight</strong></td>
</tr>
<tr>
<td><strong>CONTINUATION</strong></td>
</tr>
<tr>
<td><strong>HEIFER</strong></td>
</tr>
<tr>
<td><strong>Breeding Date</strong></td>
</tr>
<tr>
<td><strong>Type of Breeding</strong></td>
</tr>
<tr>
<td><strong>Sire</strong></td>
</tr>
<tr>
<td><strong>Preg. Check Date</strong></td>
</tr>
<tr>
<td><strong>Birth Date</strong></td>
</tr>
<tr>
<td><strong>Calf Birth Weight</strong></td>
</tr>
<tr>
<td><strong>Sex</strong></td>
</tr>
<tr>
<td><strong>Tag/Tattoos/Brand</strong></td>
</tr>
</tbody>
</table>
SELECTION ACTIVITY #1
PICKY AND CHOOSY
An Individual Activity

SOMETIMES IT’S GOOD TO BE PICKY AND CHOOSY
When you buy new runners there are some questions you likely ask yourself.

What do I need the runners for – soccer – school? ________________

What brand of runner do I want? ________________________________

What color of runner do I want? ________________________________

How much do I want to pay for the runners? ____________________

BY BEING PICKY AND Choosy YOU WILL FIND JUST THE RIGHT RUNNERS.
BY BEING PICKY AND CHOOSY YOU CAN SELECT JUST THE RIGHT
4-H CALF

Will you be selling your calf at the end of the 4-H Year? __________

Do you want to show your 4-H Calf? ____________________________

If you choose a heifer, will you want to breed it? _________________

What breed of animal do you want? ______________________________

How much will the calf cost - can you afford it? _________________

Do you like the way it looks and acts? ___________________________

BE PICKY AND CHOOSY AND FIND THE ANIMAL
THAT IS JUST RIGHT FOR YOU!
SELECTION ACTIVITY #2
LINE 'EM' UP
A GROUP ACTIVITY

The Card Game Line 'Em' Up is played liked Rummy.

PREPARATION:
- If you have more than 6 players, copy a second set of cards.
- Cut out the cards

PLAYING THE GAME:
- Deal out 5 cards each.
- Leave the rest in the deck and turn 1 card up.
- The object of the game is to get 3 of a kind. When you get 3 matching cards you lay them down.
- There are Baby Calves, Heifers, Steers, Cow/Calf Pairs, and a Wild Bull. The Wild Bull can be used like a JOKER and played with any of the cards to make a matching three. For example: Two Baby Calves and A Wild Bull make a group of three and can be put down.
- Players can either take the TOP CARD from the deck OR the TOP CARD on the discard pile OR THE ENTIRE DISCARD PILE.
- A card has to be discarded each time.
- If a player is able to put all their cards down, the remaining players have to count up the score left in their hand, and subtract it from their total.
- The points for each card are written on the cards. Baby Calf - 5 points each, Heifers and Steers - 10 points each, Cow/Calf Pair - 15 points each, and The Wild Bull - 20 points.
- First player to 100 wins the game.
<table>
<thead>
<tr>
<th>Line 'Em' Up</th>
<th>Line 'Em' Up</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1" alt="Cow Silhouette" /></td>
<td><img src="image2" alt="Cow Silhouette" /></td>
</tr>
<tr>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td><img src="image3" alt="Cow Silhouette" /></td>
<td><img src="image4" alt="Cow Silhouette" /></td>
</tr>
<tr>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td><img src="image5" alt="Cow Silhouette" /></td>
<td><img src="image6" alt="Cow Silhouette" /></td>
</tr>
<tr>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td><img src="image7" alt="Cow Silhouette" /></td>
<td><img src="image8" alt="Cow Silhouette" /></td>
</tr>
<tr>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td><img src="image9" alt="Cow Silhouette" /></td>
<td><img src="image10" alt="Cow Silhouette" /></td>
</tr>
<tr>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td><img src="image11" alt="Cow Silhouette" /></td>
<td><img src="image12" alt="Cow Silhouette" /></td>
</tr>
<tr>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td><img src="image13" alt="Cow Silhouette" /></td>
<td><img src="image14" alt="Cow Silhouette" /></td>
</tr>
<tr>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td><img src="image15" alt="Cow Silhouette" /></td>
<td><img src="image16" alt="Cow Silhouette" /></td>
</tr>
<tr>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Line 'Em' Up</td>
<td>Line 'Em' Up</td>
</tr>
<tr>
<td>-------------</td>
<td>--------------</td>
</tr>
<tr>
<td><img src="image1" alt="Cow" /></td>
<td><img src="image2" alt="Cow" /></td>
</tr>
<tr>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Line 'Em' Up</td>
<td>Line 'Em' Up</td>
</tr>
<tr>
<td><img src="image3" alt="Cow" /></td>
<td><img src="image4" alt="Cow" /></td>
</tr>
<tr>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Line 'Em' Up</td>
<td>Line 'Em' Up</td>
</tr>
<tr>
<td><img src="image5" alt="Cow" /></td>
<td><img src="image6" alt="Cow" /></td>
</tr>
<tr>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Line 'Em' Up</td>
<td>Line 'Em' Up</td>
</tr>
<tr>
<td><img src="image7" alt="Cow" /></td>
<td><img src="image8" alt="Cow" /></td>
</tr>
<tr>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Line 'Em' Up</td>
<td>Line 'Em' Up</td>
</tr>
<tr>
<td><img src="image9" alt="Cow" /></td>
<td><img src="image10" alt="Cow" /></td>
</tr>
<tr>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Line 'Em' Up</td>
<td>Line 'Em' Up</td>
</tr>
<tr>
<td><img src="image11" alt="Cow" /></td>
<td><img src="image12" alt="Cow" /></td>
</tr>
<tr>
<td>10</td>
<td>10</td>
</tr>
</tbody>
</table>
A healthy calf
A sick calf
Parts of the beef animal
Activities

Check daily to be sure animal is healthy. Give necessary treatment to prevent illness and respond quickly to health problems.
HEALTHY OR SICK?

Alert and Interested                                Runny Nose                                Shaky and Unsteady
Smooth glossy coat                                   Standing with Head Down

Knees and *joints* are swollen

Eyes are cloudy                                     Rough, dry coat                          Eating good

Ears are up and alert                                Not eating much                          No sores or cuts
Clean Nose and Eyes                                  Not interested in anything
Normal looking joints

All Projects

Draw lines from the sentences to the calf that they describe
Common Illnesses for Yearling Calves

**PNEUMONIA**

<table>
<thead>
<tr>
<th>Causes</th>
<th>Symptoms</th>
</tr>
</thead>
<tbody>
<tr>
<td>- <em>Bacteria</em></td>
<td>- Fever</td>
</tr>
<tr>
<td>- Cold or wet bedding</td>
<td>- Rapid breathing</td>
</tr>
<tr>
<td>- Overcrowding</td>
<td>- No appetite</td>
</tr>
<tr>
<td>- Changing feed</td>
<td>- Cough</td>
</tr>
<tr>
<td>- Rapid weather changes</td>
<td>- Runny eyes or nose</td>
</tr>
<tr>
<td>- Stress from procedures like</td>
<td>- Drooping ears</td>
</tr>
<tr>
<td><em>castration</em> and <em>dehorning</em></td>
<td></td>
</tr>
</tbody>
</table>

**BLOAT**

**Causes of Free Gas Bloat**

- The stomach isn't working properly and the animal can't burp.
- Eating too much grain.
- The animal might have hardware or a tumour or abscess.

**Symptoms of Bloat**

- Swelling on left side of animal.
- Grunting
- Rapid breathing
- Uneasy and uncomfortable
- Urinates often
- Passes manure

**Causes of Frothy Bloat**

- Caused by diet. The food ferments too quickly causing gas to be trapped as foam.
- Feeding legume forages, or finely ground grain.

**Treatments for Bloat**

- Walking the animal
- *Drenching* with mineral oil.
- Drenching with bloat relieving medicine
- Using stomach tube to allow gas to escape
- Puncturing the *rumen.*
How much do you remember about the two illnesses you learned about on pages 36 and 37? Draw lines from the symptoms for pneumonia and bloat.

**PNEUMONIA**
- No appetite
- Uncomfortable
- Urinates often
- Rapid breathing
- Grunting
- Runny eyes

**BLOAT**
- Passes manure often
- Fever
- Swelling on left side
- Runny nose
- Cough
Using the list below write the beef animal parts beside the numbers on the beef animal.

1. Crest   2. Poll   3. Face
16. Flank   17. Stifle Region   18. Quarter

Diagram courtesy of 4-H Branch of Alberta Agriculture, Food and Rural Development
Heifer Project

THE REPRODUCTIVE CYCLE

If your project animal is a heifer and you want to breed her, there are some things you will want to know about the reproductive cycle.

Puberty

Every animal is different, but heifers can start cycling anytime between 5 and 14 months of age. If a heifer has not shown sign of estrus or heat by 14 months, you should have her checked by a veterinarian.

When to Breed your Heifer

Breeding age depends on the condition, size and breed of the heifer. It should be at least 65% of the weight it will be when it is fully grown.

Length of the Heat Period

The heat period occurs every 18 to 24 days. During heat, there is a period of “standing heat”. This is when the heifer will stand and allow the bull to breed her. It usually lasts from 12 to 18 hours. During the later part of the “standing heat” and the following six hours, ovulation takes place, and the female should be bred.

Gestation Period

The gestation period varies from 279 - 290 days. An unborn calf is called a fetus 34 days after conception. Before this time, it is called an embryo.
Heifer Project  The following chart gives you an idea of how long the heat period last, and the best time for you to have your heifer bred.

**THE BEEF ANIMAL HEAT CYCLE**

<table>
<thead>
<tr>
<th>WHEN TO BREED</th>
<th>TIME TO BREED</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TOO EARLY</td>
</tr>
<tr>
<td></td>
<td>0</td>
</tr>
<tr>
<td>BEFORE HEAT (6-10 Hours)</td>
<td></td>
</tr>
<tr>
<td>Bawls frequently</td>
<td></td>
</tr>
<tr>
<td>Smells other cows</td>
<td></td>
</tr>
<tr>
<td>Attempts to ride other cows</td>
<td></td>
</tr>
<tr>
<td>Vulva moist, red, slightly swollen</td>
<td></td>
</tr>
<tr>
<td>Restless</td>
<td></td>
</tr>
<tr>
<td>STANDING HEAT (18 Hours)</td>
<td></td>
</tr>
<tr>
<td>Stands to be ridden</td>
<td></td>
</tr>
<tr>
<td>Nervous and excitable</td>
<td></td>
</tr>
<tr>
<td>Rides other cows</td>
<td></td>
</tr>
<tr>
<td>Vulva moist and red</td>
<td></td>
</tr>
<tr>
<td>Clear mucous</td>
<td></td>
</tr>
<tr>
<td>discharge</td>
<td></td>
</tr>
<tr>
<td>Head up</td>
<td></td>
</tr>
<tr>
<td>Other cows excited by smell</td>
<td></td>
</tr>
<tr>
<td>AFTER HEAT (10 Hours)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>LIFE OF EGG (6-10 Hours)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The following are the approximate weights a heifer should be before you breed her. (kgs)

- Hereford: 272
- Angus: 254
- HerefordxAngus: 268
- Charlais: 294-305
- Chianina: 318-342
- Gelbvieh: 282-285
- Limousin: 292-301
- Maine Anjou: 302-305
- Pinzgauer: 284
- Red Poll: 264-274
- Simmental: 288
- South Devon: 273-281
- Tarentaise: 284
# Health

## Heifer Project

**BEEF GESTATION TABLE**  
**TABLE SHOWING WHEN CALF IS DUE FROM A GIVEN DATE OF SERVICE, BASED UPON 283 DAYS OF PREGNANCY.**

The first date is the date the animal was bred, and the second date is the approximate date the calf will be born.

<table>
<thead>
<tr>
<th>Date of Calf Service Due</th>
<th>Date of Calf Service Due</th>
<th>Date of Calf Service Due</th>
<th>Date of Calf Service Due</th>
<th>Date of Calf Service Due</th>
<th>Date of Calf Service Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan 1 Oct 10</td>
<td>Feb 1 Nov 10</td>
<td>Mrch 1 Dec 8</td>
<td>Apl 1 Jan 8</td>
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Source: [www.cattletoday.com](http://www.cattletoday.com)

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**Heifer Project**

What breed is your heifer? ________________

Do you think your heifer will be big enough to breed at the time you plan to breed her? ______

Remember to add your date of breeding to your Beef Animal Record on page 26.
HEALTH ACTIVITY #1

REPRODUCTION SCRAMBLE

1. PUNIDROOTRCE

2. UFSET

3. YRBTEUP

4. ROYEMB

5. UOTIAOVNL

6. EATH

7. YECL

8. TSRSUE

9. TTEINSGAO

10. OPCCNENOIT
HEALTH ACTIVITY #2
GONE FOR PARTS
GROUP ACTIVITY

PREPARATION:
- There are 24 Animal Body Parts and 24 Matching Clues
- Cut out the Animal Body Parts and the Clues.
- Hand out equal numbers of CLUES and PARTS to each member.
- If you have to leave a few out to make the numbers equal be sure that you leave out parts and the clues that describe those parts so that you don’t end up with someone having a part that there is no clue for or vice versa.
- It is possible that a member might end up with a part and the matching clue to that part - that’s OK - they still have to figure out that they are a match.
- Make several copies of the picture of THE BEEF ANIMAL PARTS on page 37. Have them hanging or spread around the room so members can check for parts they don’t know during the game.

PLAYING THE GAME:
- Using their CLUES the members go around the room asking other members “Do you have the part that……………..”.
- They cannot use the PART’S NAME even if they know what they are looking for.
- When a member finds A PART to match their CLUE the member with the PART turns it over to the person with the CLUE
- So members will be both looking for both PARTS to match their clues and handing out the PARTS they received at the beginning of the game to other members who are searching.
- You cannot hold back PARTS if you are asked and have the correct one.
- Members may have to keep checking the BEEF ANIMAL PARTS picture to be sure about where their PARTS are found.
- The first member who has found all the PARTS to match their CLUES wins the game. (Remember, they might still have some PARTS they haven’t been asked for yet. They only need to find all the PARTS that match their clues to win the game).
- Be prepared for a lot of LOUD interaction as everyone looks for PARTS to match their CLUES.
<table>
<thead>
<tr>
<th>Description</th>
<th>Location</th>
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</thead>
<tbody>
<tr>
<td>That is just behind the poll</td>
<td></td>
</tr>
<tr>
<td>That is the top of the head - often a raised bump</td>
<td></td>
</tr>
<tr>
<td>That contains eyes and nose</td>
<td></td>
</tr>
<tr>
<td>That is the nose and mouth area</td>
<td></td>
</tr>
<tr>
<td>That is right under the head on the neck</td>
<td></td>
</tr>
<tr>
<td>That is the loose floppy skin at the bottom of the neck</td>
<td></td>
</tr>
<tr>
<td>That is the top part of the front leg</td>
<td></td>
</tr>
<tr>
<td>That is the joint that bends half way down the front leg</td>
<td></td>
</tr>
<tr>
<td>That is above the dew claw</td>
<td></td>
</tr>
<tr>
<td>That is the area below the dew claw</td>
<td></td>
</tr>
<tr>
<td>That is the joint area on the back leg</td>
<td></td>
</tr>
<tr>
<td>That is the soft skin were the body meets the back leg</td>
<td></td>
</tr>
<tr>
<td><strong>That are little claws above the hoof</strong></td>
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<tr>
<td>----------------------------------------</td>
<td></td>
</tr>
<tr>
<td><strong>That is the meaty area on the hind quarter above the leg</strong></td>
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<tr>
<td>----------------------------------------</td>
<td></td>
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<tr>
<td><strong>That are the bones on both sides of the tail</strong></td>
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<tr>
<td>----------------------------------------</td>
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<tr>
<td><strong>That is the meaty area at the top of the rear</strong></td>
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<td>----------------------------------------</td>
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</tr>
<tr>
<td><strong>That is the meaty area ahead of the rump</strong></td>
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<td>----------------------------------------</td>
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<tr>
<td><strong>That is in the centre of the animal at the top</strong></td>
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<tr>
<td>----------------------------------------</td>
<td></td>
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<tr>
<td><strong>That is the small area moving forward from the back</strong></td>
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<td>----------------------------------------</td>
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<tr>
<td><strong>That goes from the tail head to the top of the shoulder</strong></td>
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<td>----------------------------------------</td>
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<tr>
<td><strong>That are found in the middle of the beef</strong></td>
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<tr>
<td>----------------------------------------</td>
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<tr>
<td><strong>That is the point where the rump, loin, and ribs meet</strong></td>
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<td>----------------------------------------</td>
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<tr>
<td><strong>That is above the front leg</strong></td>
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<tr>
<td>----------------------------------------</td>
<td></td>
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<tr>
<td><strong>That is used for hearing</strong></td>
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The digestive system
Feed and nutrients
Feed for my calf
Activities

Enough air, water and feed. Give your animal a healthy diet with a ration that will fit its needs.
Where does food go after the cow takes a bite?

1. **Mouth** 2. **Esophagus** 3. **Rumen** 4. **Reticulum**
5. **Omasum** 6. **Abomasum** 7. **Small Intestine**
8. **Large Intestine** 9. **Anus**

Diagram courtesy of the 4-H Branch of Alberta Agriculture, Food and Rural Development.
FEED AND NUTRIENTS

The feed you give your 4-H calf should supply it with the nutrients it needs to grow and remain healthy. There are five essential nutrients.

**WATER** is an important nutrient. It helps food move through the body, and keeps joints lubricated. Cattle cannot live without it.

**ENERGY** helps keep an animal warm, and is necessary for growth and producing calves and milk.

**PROTEIN** is important for growth, muscles, hair, and reproducing.

**VITAMINS** are needed for growth, and overall health.

**MINERALS** help to build healthy teeth and bones, and also for muscle and nerve development.
WHERE DO WE FIND THESE NUTRIENTS?

**WATER** for cattle might come from a well, a dugout, or may be hauled in from off the farm. A fresh, clean supply of water is the healthiest for your calf.

**ENERGY** in the form of fats and carbohydrates can be found in grain such as barley and oats.

**PROTEIN** can be found in feed like alfalfa and hay.

**MINERALS** like calcium, iron, and salt have to be added to the feed.

**VITAMINS** can be found in feed like green grass, and the sun can supply other vitamins. Some vitamins have to be added to the feed.
### All Projects

**List all of the different kinds of feed you give your 4-H calf and what nutrients they should supply to your calf.**

<table>
<thead>
<tr>
<th>Type of Feed</th>
<th>Nutrients Supplied</th>
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Are you giving your calf any extra minerals and vitamins? List them below.

<table>
<thead>
<tr>
<th>Minerals</th>
<th>Vitamins</th>
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NUTRITION ACTIVITY #1
NUTRITION WORD SEARCH

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E X C K D O K I V L R E T A W H T
J R N N M K S N R T Q Q M K I I
L O C V E U I Z I N K W U V X X C
Y N Z O O M S X Q H L S O E F P U
P X B C B Z U A N V A B M J Q N L
Q V A X X D X R M M Z E W D N E U
R W N J H T N N O O Y U P U U U U M
U X Z Z B D I B T U D T K Z T L G
Q L Y W E A A Y V F N S U T R W G
C H R D R G M J Y G R E N E I V J
F K P G L R J B F R G Z P D E Q C
F J B W N O O E V I T A M I N S I
L J C C U C M U X V A N V I T X N
E D I G E S T I V E X Y P U S J A
S I I J S U T L P D E L O V G W Q

water      omasum      energy      rumen

grain      digestive      abomasum      reticulum

vitamins      nutrients      minerals      protein
INSTRUCTIONS FOR MAKING NUTRITION MOBILE

Mobiles need to be BALANCED to hang properly and look good. Cattle need to have a BALANCED RATION for them to grow, keep healthy and look good.

- Print 2 copies of each page for each member.
- Color the images and cut them out.
- Glue the matching images together, back to back. If you want to make the mobile sturdier, put a piece of light cardboard in between the two images.
- Punch holes for the yarn or string. (Yarn is strong without ripping through the holes)
- Use the largest item - (the calf) as the top image. String the other images according to size and balance. You may need to punch extra holes.

Each member could make their own, or the group could make one mobile to be used as a display for achievement, fair day, or visual presentation.
FACILITIES

Shelter for your calf

Feeding facilities

Activities

Safe housing and enough space, to prevent injuries and allow your calf to keep healthy and to grow.
Your 4-H calf will need some sort of shelter to protect it from the cold, heat, and other weather conditions. Shelter might be trees, an open housing shed or indoor housing such as a barn. Wherever your animal takes shelter, there should be clean bedding so they don’t have lay on cold ground or a cold, damp floor.

WHAT TYPE OF SHELTER DOES YOUR CALF HAVE?
FEEDING FACILITIES

There are several different feeders to use for beef animals depending upon how many and where you are feeding them. For feeding a grain ration there are several different options.

With a self-feeder, the animals can eat whenever they are hungry.

Self-feeders

Cattle can be fed grain in a bunker.

Expandable feed bunk

You might choose to feed your 4-H calf its grain ration in a pail or tub.
Roughage like hay can be fed in several different feeders. Small square bales might be fed in a portable hay feeder like the one below. For an animal that is being kept in a barn, you might feed square bales in a manger or feed tub.

Large round or large square bales can be fed in a feeder like the one below. A lot of animals can eat at the same time.

Round bales can also be fed in round bale feeders like this one.
Often minerals and vitamins are mixed in with the grain, but sometimes they are fed in a *lick-tub*, or a small covered feeder like the one below.

All Projects

What kind of feeders do you use for feeding your 4-H Calf?

What works well with the feeding system you have?

What would you like to improve or change?
FACILITY ACTIVITY #1
FINDING THE BEST FACILITIES
A GROUP OR INDIVIDUAL ACTIVITY

In this activity you have to decide what the best shelter, feeders, and watering system would be best for your cattle.

You own all of the cattle in the picture.

- Cut out your cattle
- Cut out whatever shelter you think would be best for your herd.
- Cut out the feeders that you think would work best for the number of cattle.
- Cut out the best watering system for your cattle.
- Set up your barn yard by gluing everything to a plain sheet of paper.
FACILITIES ACTIVITY #2 A GROUP ACTIVITY
I'M HOME AND I'M HUNGRY

When 4-H members arrive home from school, the first thing they say is “I'm Home”, and usually the second thing they say is “I'm Hungry”. This activity relates this idea to beef animals. The animals also need a home for comfort and shelter, and food that will maintain their health and growth.

PREPARATION:
- Cut out the situation and put them into a container.
- Cut out the feed and shelter facilities and spread them out where the members will be able to see them.
- Have the list of questions ready to use.

THE ACTIVITY:
- Have the members sit on chairs or on the floor in a circle.
- Have a member pick a situation out of the container. It will tell them how many beef cattle there are in the scenario, what the season is, and other conditions they might need to be aware of. Have them read it out loud for everyone to hear.
- **Ask the first question.** “If you were facing the conditions described in the scenario - (1) what would you be wearing? (2) what kind of shelter would you need? (3) is there a favorite room or place you’d like to be? (4) what would be your favourite food?”
  You might hear and encourage answers like this: (1) If it were 40 below I'd be wearing my ski-doo suit outside. (2) In a warm house. (3) In the family room in front of the fireplace. (4) Hot chocolate would be good.
- **Ask the second question.** “For the cattle you have what kind of shelter do you think would be best?” They can pick one from the pile or describe one they think of themselves.
- **Ask the third question.** “Why do you think this is the best shelter for your animals?”
- **Ask the fourth question.** “What kind of feeders are you going to need to feed your animals?” They can once again pick from the pile or describe some kind of feeder or feed system.
- **Ask the fifth question.** “Why do you think this is the best feed system for your animals?”
Have the member put the pictures back in the centre, let the next member choose a situation, and repeat the questions.

Ask for input and ideas from the members about the choices the members make, and be ready to give some comments yourself.

There are no winners or losers in this activity - it simply generates ideas and an understanding of what kind of facilities we need for different groups of animals.

THE SITUATIONS

You have thirty-five feeders. It is January and the weather has been hanging around -30 with a strong wind. You are feeding the animals all the barley they can eat, and round alfalfa/hay bales.

You have 10 cow-calf pairs. It is March and the calves are about 3 months old. The weather is at about -10 and it seems to snow a bit every day. You are feeding round alfalfa bales, and 2 pails of chop a day to the cows. The calves are getting free choice rolled oats.

You have 5 bulls in a pen separate from the rest of the herd. It is December, and it has been snowing nearly every day. The temperature is about -17. You are feeding the bulls 3 small square bales every day.

You are helping to look after 3 4-H calves - they belong to you and your two brothers. It is April. It has been kind of a mixture of rain and snow with a temperature of -2. The calves are each getting a different grain ration, and you are feeding 2 ½ small square bales each day.

You have 40 cows that will calve in March. It is November, and there is no snow yet. The temperature is about -10. You are swath grazing the cows.

You have 75 yearling calves. It is July and it has been extremely hot. The calves are out on the pasture, and are also eating free choice oats.

You have 45 cows and their calves out in the pasture. It is August. The grass is really good this year. The temperature is around 24. Flies and mosquitoes are really bothering the animals.
You have 30 calves that you plan to sell at about 800 pounds. It is February. The weather has been quite nice, but now it suddenly drops down to -30. You are feeding self feed mixture of oats, barley and straw. You are also feeding large square hay bales.

You have 6 heifers that are due to calve this month. It is April. It has been raining a lot and the temperature is hanging around 0. You are feeding the heifers small square green feed bales and a couple of pails of chop each day.

You have a cow and calf. They are the only animals you have. It is October. The weather is still quite warm, but the pasture is pretty much done. You have started feeding a square hay bale to them every day and a half a pail of chop. They are also getting free choice minerals.

You have 25 cows with calves. It is March. The snow is starting to melt and it is muddy and wet. The temperature is just above freezing. You are feeding large round bales and 8 pails of chop every day. The cattle are also wandering out into the pasture during the day.

You have only your 4-H calf. It is November. The temperature is about -25. You are feeding the calf a grain ration and small square bales.

You have a group of 15 - 6 month old calves. It is December. They have just been taken away from their mothers. You are feeding them large round hay bales, and free choice rolled oats. They are also getting all the minerals they want.
Self-feeders
Training your calf
Grooming your calf
Showing your calf
Activities

Sensible Handling. Always handle your animal in a way that avoids unnecessary suffering.
Start working with your 4-H Calf as soon as possible. It takes a lot of time to properly train a calf, and if you leave it all until the last few weeks it may end up being a bad experience for both you and your calf. Here are some tips.

- Buy or have someone help you make a rope halter that fits your calf properly. The noseband should cross the nose about halfway between the eyes and the nose.

Diagrams courtesy of the Saskatchewan 4-H Council.
Handling

- Have someone help you tie up your calf each day, leaving it tied a little longer each time. Stay close by to be sure it doesn’t become tangled.
- Talk to your calf so it becomes used to your voice.
- Make slow movements and let your calf know where you are.
- Brush and scratch your calf while it is tied.
- When you begin to lead your calf, work inside a corral or enclosed area so that it can’t run too far if it breaks away from you.
- Hold the lead shank a couple of centimetres from the halter. This will give you better control.
- When your calf leads well, start using your show cane. Carry it in your right hand. Start by scratching the calf’s belly with the cane.

Stay Safe

Safety Tips When Training Your Calf

Wear protective footwear.

Never wrap the lead rope around your hand or body. Do not pull on the calf directly in front of the calf. It may move forward quickly and step on you. Pull and push from the side of the calf.

Never use a truck or tractor to teach your calf to lead.
Handling

All Projects GROOMING YOUR CALF

Brushing is an excellent way to calm and tame your calf. It also helps to keep the calf’s skin and hair healthy and free of dust and scurf. If you are going to show your calf you will want to do extra grooming before show or achievement. Here are some suggestions.

Washing

➢ Gather everything you will need for washing and grooming your calf. Put on your rubber boots and old clothes - it’s a messy job.
➢ Tie your calf securely with a slip-knot using a halter that won’t shrink or be ruined by water.
➢ Start by wetting the legs and then working your way up the body. Do the head last. Don’t get water in the calf’s ear.
➢ When the whole calf has been wetted down, soap the calf well, working it into lather with a brush. Soap from the tail head, across the top to the head. Keep working your way down so that the soap and water will run down over the unworked areas.
➢ Leave the tail until last so that you won’t get switched with a wet tail.
➢ The knees, hocks, tailhead and just behind the poll will be the dirtiest places as the calf can’t lick themselves in those spots.
➢ Begin rinsing starting at the head and moving across the top toward the back. Then work your way down.

Drying and Brushing

➢ Brushing the animals dry is the best way to train the hair. Blow dryer might be used in cooler weather.
Handling

Clipping

Get an adult or and older member to help you clip your calf. Clipping takes a steady hand, good strong arms and legs, and a lot of practice. Here are some tips to remember.

➢ Clipping the hair from the belly will make your animal look taller and cleaner.

➢ On a heifer, clip the hair off the udder so it is easier to see.

➢ To give a clean cut look, cut against the growth of hair on the head. Clip the side of the head and under the jaw and muzzle. Work from the base of the ear toward the jawbone.

➢ Move down the dewlap and brisket. A shaved brisket will make the calf look trimmer.

➢ Steers usually have their heads completely clipped. Some people leave a tuft of hair on top of the poll.

➢ A portion of the tail can be clipped to give the hind end of the calf a thicker appearance.
SHOWING YOUR 4-H CALF

When you enter the show ring, move clockwise. Keep an eye on the judge or ring person for directions. Keep some space between you and the outside of the ring, and from the animals in front of you. The judge will ask everyone to stop and “Set Up Your Calf”. You want to stand your animal so that it looks the very best it can. To be set up correctly it should have all four feet squarely underneath it when looked at from the front and rear. Here’s some tips:

- Place the calf’s rear feet first.
- To move a back foot backwards, pull back slightly on the halter, and put pressure between the toes with your show cane.
- To move a back foot forward, pull forward on the halter and put the cane under the dew claw and pull forward.

Diagram courtesy of the Saskatchewan 4-H Council.
To place the front feet, use your cane or your own foot to adjust the feet so that they are even or one foot just slightly ahead of the other.

**Front View**

![Diagrams showing correct positioning of front feet.]

**Too Close** | **Correct** | **Too Wide**
--- | --- | ---

**Rear View**

![Diagrams showing correct positioning of rear feet.]

**Too Close** | **Correct** | **Too Wide**
--- | --- | ---

You should "Set Up" your calf every time the judge stops you. Be watching and listening carefully as the judge and ring person give you directions and instructions for where they want you to be. They will line up all the calves and will let you know when they want you to pull into the line. Try to leave about one metre between you and the next calf.

Diagram courtesy of the Saskatchewan 4-H Council.
### Handling

**All Projects**

---

**Caring for My Animal**

<table>
<thead>
<tr>
<th>I'm Already Doing</th>
<th>I Want To Improve</th>
<th>Care My Animal Is:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Protected from weather</td>
</tr>
<tr>
<td></td>
<td></td>
<td>In a safe place for the animal and myself.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Given clean, dry bedding regularly.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Fed healthy food every day.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Given clean water to drink.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Free to stand up and lie down comfortably.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Checked often.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Handled so that my animal and I are safe.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Handled quietly and firmly.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Treated for health problems.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Trained and handled at a young age.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Properly identified with a tag.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Transported in a safe manner.</td>
</tr>
</tbody>
</table>
HANDLING ACTIVITY #1
SQUEAKY CLEAN

Getting your 4-H calf really clean is a tough job. Shampoo for people is expensive, and shampoo for animals costs even more. Here are some home-made recipes for shampoo, conditioner and mousse that you might like to try. Be sure to ask an adult for permission and for some help.

Chamomile Shampoo
4 bags of Chamomile tea (or 1 handful of fresh Chamomile flowers)
4 tablespoons of pure soap flakes
1 ½ tablespoons of glycerine

Let the tea bags steep in 1 ½ cups of boiled water for 10 minutes. Remove the tea bags and with the remaining liquid add the soap flakes. Let stand until the soap softens. Stir in glycerine until mixture is well blended. Pour into a bottle. Keep in a dark, cool place.

Chamomile is supposed to help you relax, so maybe it will help calm your calf.

Egg Conditioner
1 teaspoon baby oil
1 egg yolk
1 cup water

Beat the egg yolk until it's frothy, add the oil then beat again. Add to the water. Massage into the scalp and throughout your hair. Rinse well. Store in the refrigerator. Will keep approximately 1 week.

Mousse
¼ cup of plain gelatine
1 cup warm water

Dissolve ¼ teaspoon plain gelatin in 1 cup boiling water. Let sit at room temperature until slightly set. Rub into dry or wet hair, and blow dry. Will keep approximately 1 week.
HANDLING ACTIVITY #2
A GROUP ACTIVITY
THE DO’S AND DON’TS OF HANDLING BEEF CATTLE

PREPARATIONS:
- Divide the group into two teams. Give the teams names if you like or let them pick their own team name.
- Each team will need a bell, can with spoon to hit can with, or something they can use to determine who gets to answer.
- A leader or older member can ask the questions and award the points.
- There is one point for each correct answer.

PLAYING THE GAME:
- The first member on each team comes up to the HOT SEAT (two chairs) at the front. They are each given a can, buzzer, bell or whatever you are using.
- The chair person makes a statement about handling cattle.
- The first member hitting the can etc. gets to answer by saying either DO or DON’T.
- If the member is correct they get a point.
- If there is a tie when hitting the can, give both members a question.
- Then the next two members come up to the HOT SEAT for their question.
- Keep going until all statements have been given. There are 24 statements. You can add more of your own if there aren’t enough statements for all the members to have a turn.
- The team with the most points win.
- If you want to make the game a little longer or increase the learning experience, offer an extra point for each time the member can tell you why you should, shouldn’t, do or don’t do what the statement refers to. For example: “Why would you not want to pull your calf from in front of it if it is being balky?”
<table>
<thead>
<tr>
<th>STATEMENTS</th>
<th>ANSWERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Talk to your calf really loudly.</td>
<td>(Don’t)</td>
</tr>
<tr>
<td>Move quickly around your calf.</td>
<td>(Don’t)</td>
</tr>
<tr>
<td>When you first start leading your calf keep it in a smaller area like a corral.</td>
<td>(Do)</td>
</tr>
<tr>
<td>Hold the lead shank a couple of centimetres from the halter for good control.</td>
<td>(Do)</td>
</tr>
<tr>
<td>When you first use the show cane start by scratching your calf on the face.</td>
<td>(Don’t)</td>
</tr>
<tr>
<td>When working with your calf, wear your sandals to keep cool.</td>
<td>(Don’t)</td>
</tr>
<tr>
<td>Wrap the lead rope around your hand for a better grip.</td>
<td>(Don’t)</td>
</tr>
<tr>
<td>If your calf won’t move pull it from in front of the calf.</td>
<td>(Don’t)</td>
</tr>
<tr>
<td>Use the tractor to teach a stubborn calf to lead.</td>
<td>(Don’t)</td>
</tr>
<tr>
<td>Brush your calf to clean it and to tame it.</td>
<td>(Do)</td>
</tr>
<tr>
<td>Wet the legs first when washing your calf.</td>
<td>(Do)</td>
</tr>
<tr>
<td>Wash the inside of your calf’s ears.</td>
<td>(Don’t)</td>
</tr>
<tr>
<td>When washing your calf, soap from the tailhead across the top to the head.</td>
<td>(Do)</td>
</tr>
<tr>
<td>Rinse starting at the rear over to the head and then down.</td>
<td>(Don’t)</td>
</tr>
<tr>
<td>Clip the hair from the belly to make the animal look taller and cleaner.</td>
<td>(Do)</td>
</tr>
<tr>
<td>Shave the brisket for a trimmer look.</td>
<td>(Do)</td>
</tr>
<tr>
<td>Move counter-clockwise in the showring.</td>
<td>(Don’t)</td>
</tr>
<tr>
<td>Worry about what the Judge is doing or saying.</td>
<td>(Do)</td>
</tr>
<tr>
<td>Place the calf’s rear feet first when setting up.</td>
<td>(Do)</td>
</tr>
<tr>
<td>Set up the calf so their feet are really wide apart.</td>
<td>(Don’t)</td>
</tr>
<tr>
<td>Leave ½ meter between you and the calf next to you.</td>
<td>(Don’t)</td>
</tr>
<tr>
<td>If a calf ahead of you stops – PASS IT.</td>
<td>(Don’t)</td>
</tr>
<tr>
<td>Congratulate the person who wins the class.</td>
<td>(Do)</td>
</tr>
<tr>
<td>If you win the class do a Victory Dance.</td>
<td>(Don’t)</td>
</tr>
</tbody>
</table>
What is a judge?

What does a judge do?

Can I be a judge?
All Projects

YOU BE THE JUDGE

What is a Judge? What does a Judge do? Can I be a Judge?

- A Judge is someone who DECIDES what animal or item is the best.
- A Judge THINKS about what makes an animal or item the best.
- A Judge LOOKS at all the items or animals to see their good points and their not so good points.
- A Judge COMPARES the animals or items and decides why one is better than another.
- A Judge gives REASONS for what he/she decides.
- YOU CAN BE A JUDGE!!

TO BE A JUDGE YOU JUST HAVE TO REMEMBER

THINK

LOOK

COMPARE

DECIDE
HERE WE HAVE FOUR VERY FINE LOOKING FROGS

#1                #2                   #3                   #4

HERE ARE SOME POINTS THAT MAKE A GOOD FROG

- They should have 4 whole feet
- They should have long front legs
- They should have bright alert eyes
- They should be slim and trim
- They should be fast for catching flies

NOW THINK ABOUT THESE POINTS

AND

LOOK AT EACH FROG TO SEE IF THEY HAVE THESE POINTS

AND

COMPARE THEM CAREFULLY

THEN

DECIDE AND PLACE THEM FROM FIRST TO LAST
First
I choose #_____ over #_______ because

___________________________________________

Second
I choose #_____over #______ because

____________________________________________

Third
I choose #_____over #______ because

____________________________________________

Fourth
I choose #_____ as last because

____________________________________________
ABCESS: A pocket of infection.

BACTERIA: Little plants (smaller than we can see) which may create parasites that cause infection or disease.

CASTRATION: When the testicles are removed from a bull calf, making it impossible for him to breed.

CONCEPTION: When the cow becomes pregnant.

CYCLING: A heifer or cow cycles every 18 to 24 days. She produces an egg each time she cycles.

DAM: The mother cow.

DEHORNING: Removing the horns from an animal.

DIGESTIVE SYSTEM: The stomach system that breaks down food.

DRENCHING: When you force a medicine or fluid down an animal's throat.

EMBRYO: The name given to an unborn calf before 34 days.

ESTRUS: When the cow is fertile and could become pregnant.

FETUS: The name given to an unborn calf after 34 days.

FRAME: The skeleton or bone structure of an animal.

HARDWARE: When an animal eats something like nails or wire.

HEAT: Another name for estrus.

HEIFER: A female beef who has not had a calf.
FERMENT: What happens in the stomach to cause bloat.

GESTATION: The length of time a cow is pregnant with a calf.

JOINTS: Where there are moveable bones (like a knee).

LEADSHANK: The chain, rope, or leather strap attached to the halter.

LEGUME FORAGES: Feed with alfalfa in it.

LICK TUB: A tub that contains minerals.

MARKET ANIMAL: A beef animal that is being raised to be sold for meat.

NUTRIENTS: All beef animals need these to grow and stay healthy. They get them from the feed they eat.

OVULATION: When an egg is discharged from the ovaries.

PUBERTY: When a heifers body is able to produce a baby calf.

RECORD: When talking about cows and bulls, their past records of what calves they produced and what those calves were like is very important.

RING PERSON: A person who helps the judge keep classes organized at a cattle show.

RUMEN: The first stomach

SHOW CANE: A stick used for setting up an animals feet a show.

SIRE: The father or bull.

STEER: A male beef animal that has been fixed so that it can't breed.

TEATS: The teats are what the calf drinks milk from.

TUMOR: A growth in or on the body that shouldn't be there, and could cause the animal to become ill.

UDDER: The bag that holds a mother cow's milk.
ANSWER PAGE

Page 44

REPRODUCTION SCRAMBLE

1. PUNIDROOTRC E reproduction
2. UFSET fetus
3. YRBTEUP puberty
4. ROYEMB embryo
5. UOTIAOVNL ovulation
6. EATH heat
7. YECL cycle
8. TSRSUE estrus
9. TTEINSGAO gestation
10. OCPNOENOIT conception

Page 55

NUTRITION WORD SEARCH

l a s y a c e n h g e
f h y l o d j p y t n e a w k e
e x c k d d k i v l e t l a w h t
j r n v n k s n r t q n q n k i
l o c v e u i z i n k w v v x c
y n z o o m e x q n h l d e f p n
p x b c b z u a n y a r m m q n l
q v a x x d x a n z e w d n e j
r w n j h t n m o y u p u j u m
u x z z b d l e s t d k t z t l e
q l y w e a a y v f n s u t r w g
c h r b r g m j f o r d e v i j
f k p g l r j b f p g z p d g q c
f j b w n o e s e a m e i
l c c u c m u x k y a n y i t r n
h u p s u d l y e x y p u g j a
s i s u t l p d e l o v g w q

Answers to page 19

Green White
Head Heart Health Hands
Club
Club Community Country
Motto

Page 36

The Healthy Calf:
Alert and interested
Smooth glossy coat
No sores or cuts
Ears up and alert
Clean nose and eyes
Normal looking joints
Eating good

The Sick Calf:
Runny nose
Shaky and unsteady
Standing with head down
Knees and joints swollen
Eyes are cloudy
Not eating much
Not interested in anything
Rough dry coat
Winding It Up

Way to go! You have finished your 4-H project. You have done many new activities since you started at the beginning of this project.

Did you enjoy 4-H this year? Take some time to think about what 4-H project you would like to take next year.

Was there one special section in this project that you would really like to learn more about? Turn to pages 2, 3 and 4 and look at the list of the project completion list at the front of this book, and then put a star beside the section you liked the most.

Talk to your leader for more information on the project you have chosen. Remember, you may do more than one project at a time. Now, when 4-H starts up next year you will be ready to go. Have fun!

Showcase Challenge

*Bringing it all together*

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
- Make a pamphlet
- Make a computer presentation (e.g. PowerPoint)
- Give a speech
- Write a report
- 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? _____________________________
My 4-H Portfolio

Name: ___________________________ Date: _____________
Year in 4-H: ____ Club: ______________________________
Hours Spent on 4-H: ____ (Project and Other 4-H Activities)

Explore Beef 1 - Building Beef Skills 4-H Project Skills Chart
To be completed by the leader and the member based on observations and conversations throughout the project.

<table>
<thead>
<tr>
<th>Skill Builder</th>
<th>Members will be able to...</th>
<th>Date completed and two things that you learned</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>All About 4-H</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Selection</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Health</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Nutrition</td>
<td></td>
</tr>
</tbody>
</table>
## Explore Beef 1 - Building Beef Skills 4-H Project Skills Chart

<table>
<thead>
<tr>
<th>Skill Builder 5</th>
<th>Members will be able to...</th>
<th>Date completed and two things that you learned</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facilities</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Skill Builder 6</th>
<th>Members will be able to...</th>
<th>Date completed and two things that you learned</th>
</tr>
</thead>
<tbody>
<tr>
<td>Handling</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Skill Builder 8</th>
<th>Members will be able to...</th>
<th>Date completed and two things that you learned</th>
</tr>
</thead>
<tbody>
<tr>
<td>Judging</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Leader Point of Praise!

I am most impressed by...

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

Leader’s Signature: _______________________________
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 leaders,
4-H Ambassadors, friends of 4-H)

I am most impressed by...

I believe that you have learned...

In the future I encourage you to...

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, Bonspiels, 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.**
**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/](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