We must plant the sea and herd its animals using the sea as farmers instead of hunters. That is what civilization is all about – farming, replacing, hunting.

Jacques Cousteau, French explorer, 1910-1997

WHAT WILL WE LEARN?
In this module members will come up with three questions a non-agricultural person may ask them. They will then choose one or more of these questions, research the issue, and present their findings to the whole club. This would be a wonderful module to do as part of your clubs’ speech component.

WHO CAN HELP?
You will need to talk to people about some of the practices they use, when working with animals. Talk to teachers, farmers, your parents, etc. The more informed you are, and the greater the range of opinions you can gather, the better you will be able to make informed conclusions.

WHAT DO YOU NEED?
1. Common Sense
2. An Open Mind

LETS GET EDUCATED!
Animal handling practices such as castration, dehorning, beak trimming, tail docking

These procedures reduce animal aggressiveness, prevent physical dangers to other animals and producers, and reduce odors in meat. In sheep, docking tails (shortening an animal’s tail) prevents fly and parasite infestations. Docking keeps pigs from chewing off one another’s tails. If male swine are not castrated, (removing testicles and preventing the animal from reproducing), the meat is so stinky it is inedible. Trimming beaks in turkeys and laying hens reduces fighting, which can kill smaller and weaker animals.
Pain and discomfort felt by animals

Animals experience pain. The difference between animals and humans is that animals can’t always let us know they are in pain. Pain is hard to detect in animals because they are prey creatures and are taught not to show pain as it will leave them vulnerable to predators.

Animals act out of instinct. The best way to understand their behavior and recognize when they are experiencing pain or discomfort is to work with them. Each animal demonstrates pain and discomfort differently.

The slaughter of animals

People in this country want a diverse diet, which includes meat. Meat adds variety and necessary protein to our diet. Animals are also used in the production of a wide range of products, like drugs, prescribed by your doctor, household products, and mechanical products.

Some of the products made with animal byproducts include: plastics, cosmetics, detergents, medicinal drugs, clothing, coverings, tires, oil, wallpaper, antifreeze, etc.

Do you know of any others?

Psychiatrist: What’s your problem?
Patient: I think I’m a chicken.

Psychiatrist: How long has this been going on?
Patient: Ever since I was an egg!
LET’S HAVE SOME FUN!

1. Interview a livestock producer using some of the questions below:
   - What kind of animal do you have?
   - Do you dehorn, castrate, debeak, or dock tails? Why do you do these things? Do these procedures cause the animal pain?
   - Do you train your animal, use a cane, whip or crop?
   - Do you produce animal products for food?
   - If 4-H members learn about caring for an animal, and befriend animals, before selling them for slaughter, does this teach conflicting values?

2. Stage a debate, or write an article on an animal health and welfare issue, stating the pros and cons of the issue. Suggestions:
   - Animal castration
   - Eating meat and animal products
   - Removing horns from animals

   Be prepared to explore both sides of each issue.

3. Make a display showing non-food items that are made from animal by-products.

   Why did the farmer call his pig “Ink”?
   Because it was always running out of the pen
ANIMAL PRACTICES

Using the list in the box at the right, write the practices beside the animal they would be associated with. This might be difficult to do on your own. Try talking to livestock producers about some of the practices listed. They should be able to help you.

<table>
<thead>
<tr>
<th>ANIMAL</th>
<th>PRACTICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Horse</td>
<td>a. Neutering, castrating</td>
</tr>
<tr>
<td>Chicken</td>
<td>b. Caging, tying, tethering</td>
</tr>
<tr>
<td>Cow</td>
<td>c. Shipping, hauling</td>
</tr>
<tr>
<td></td>
<td>d. Removal of horns, tails</td>
</tr>
<tr>
<td></td>
<td>e. De-beaking</td>
</tr>
<tr>
<td></td>
<td>f. Slaughtering</td>
</tr>
<tr>
<td></td>
<td>g. Use of whips or cattle prods</td>
</tr>
<tr>
<td></td>
<td>h. Shearing, clipping</td>
</tr>
<tr>
<td></td>
<td>i. Inducing molting</td>
</tr>
<tr>
<td></td>
<td>j. Training</td>
</tr>
<tr>
<td></td>
<td>k. Rodeo, gymkhana</td>
</tr>
<tr>
<td></td>
<td>l. Use of animal for recreation or work</td>
</tr>
<tr>
<td></td>
<td>m. Disposal of young</td>
</tr>
</tbody>
</table>

When is a farmer like a magician?

When he turns his cow to pasture
ANIMALS ARE USED TO MAKE...

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

WORD LIST

ANTIFREEZE  GELATIN  PLASTIC
CLOTHING    GLASS    SOAP
COSMETICS    GUM      TIRE
DETERGENT    MEDICINALS  WALLPAPER
FOOTBALLS    OIL
FURNITURE    PAINT

What kind of doctor treats ducks?
A quack!
# ANIMAL CARE AND WELFARE

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

## WORD LIST

- CAGING
- CASTRATE
- CATTLE
- CLIPPING
- CAGING
- CROP
- CASTRATE
- CROP
- CATTLE
- PROD
- CLIPPING
- DEBEAK
- SHEARING
- CATTLE
- DEHORN
- SLAUGHTER
- CLIPPING
- GYMKANNA
- SLAUGHTER

---

Why did the ram fall over the cliff?

He didn’t see the ewe turn
### SOLUTIONS

<table>
<thead>
<tr>
<th>ANIMAL</th>
<th>PRACTICE</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Horse" /></td>
<td>a, b, c, f, g, h, j, k, l</td>
</tr>
<tr>
<td><img src="image2.png" alt="Rooster" /></td>
<td>a, b, c, f, g, h, j, k, l</td>
</tr>
<tr>
<td><img src="image3.png" alt="Cow" /></td>
<td>b, c, e, f, i, m, n</td>
</tr>
<tr>
<td><img src="image4.png" alt="Chickens" /></td>
<td>a, b, c, d, f, g, h, j, k, n</td>
</tr>
<tr>
<td><img src="image5.png" alt="Sheep" /></td>
<td>b, c, e, f, i, m, n</td>
</tr>
</tbody>
</table>
ANIMALS ARE USED TO MAKE...

+ F + + G + + + P + L C + S +
+ O + D + N + + + A I I L + +
C O S M E T I C S T I A O N E
+ T + + I T + H S + N N + I Z
+ B + R + + E A T I + + T T E
+ A E + + + L R C O + + F A E
G L A S S P + I G + L U S L R
+ L + + + D + + E R C O E F
+ S + + + E + + + N N + A G I
+ + + + M + + + I + + T P + T
+ + + + + + + T + + + + + + + N
+ + + + + + U + + + + + + + + A
+ + + + + R E P A P L L A W +
+ + + + E + + + + + + + + + +
+ + + + + + + M U G + + + + +

OVER, DOWN, DIRECTION
ANTIFREEZE (15,12,N)
CLOTHING (12,8,NW)
COSMETICS (1,3,E)
DETERGENT (4,2,SE)
FOOTBALLS (2,1,S)
FURNITURE (13,6,SW)
GELATIN (14,9,N)
GLASS (1,7,E)
GUM (10,15,W)
MEDICINALS (5,10,NE)
OIL (13,3,NW)
PAINT (9,1,SE)
PLASTIC (6,7,NE)
SOAP (13,7,S)
TIRE (6,3,SW)
WALLPAPER (14,13,W)

ANIMAL CARE AND WELFARE

C + + + + D + O R G + +
+ R + + E + E + E Y + +
S + O H + D + + T M + +
+ H O P O + + E H K + +
+ R E R + + T + G A + +
N + E A + A + + U N + +
+ + + L R + + + A N + G
+ + + T T I + + L A + N
+ + S + + T N + S + + I
K A E B E D A G + + + G
C P R O D + + C + + + A
C L I P P I N G + + + C

OVER, DOWN, DIRECTION
CAGING (12,12,N)
CASTRATE (1,11,NE)
CATTLE (8,11,NW)
CLIPPING (1,12,E)
CROP (1,1,SE)
DEBEAK (6,10,W)
DEHORN (6,1,SW)
GYMKANNA (10,1,S)
PROD (2,11,E)
RODEO (4,5,NE)
SHEARING (1,3,SE)
CLIPPING (1,12,E)
MORE! MORE! MORE!


RESOURCES USED TO CREATE THIS MODULE

3. www.puzzlemaker.school.discovery.com
The bison project does not follow the traditional 4-H livestock rules!

**WHAT WILL WE LEARN?**
The bison project is a truly unique livestock project. There is a lot to learn about this magnificent animal and the role it played in our history. For this module we will focus on one very important aspect of raising bison, and that item is handling.

**WHO CAN HELP?**
In the last few years, the number of bison producers has increased dramatically. Check with your leader, he/she might know some of the producers or how you could get in touch with one.

**WHAT DO YOU NEED?**
Everything you need to complete this module is included.

**LET’S GET EDUCATED!**

**BE SAFETY WISE**
When we are startled or scared, our first reaction is to protect ourselves. It is the very same for bison. Charging, head bunting and stomping are the ways that bison have to defend themselves. This may cause serious injury to both the handler and the bison.

The bison is only considered to be a semi-domesticated farm animal. Meaning, we have put a fence around them, and in some cases, conditioned them to be used to our farm truck. But they have many, many generations of wild instincts and we will not change them in this lifetime. Therefore we must learn how to handle them with as much ease as possible for the safety of both them and us.

*When we are working with bison we must be wise. Always follow these basic rules:*  
- Never attempt to work with bison alone, and always have an experienced adult giving directions.  
- Stay alert.  
- Move slowly when working with bison. Any sudden, jerky movements may be associated with a predator move.  
- Don’t make loud noises or sudden movements.  
- Wear appropriate footwear.  
- Keep your yard and working areas clean and dry, free from dangers to you or the bison.  
- Keep dogs and small children well away. Each may be seen as a predator and it is better to be safe than sorry.

**Don’t cross this field unless you can do it in 9.9 Seconds. The bull can do it in 10!**
UNDERSTANDING BISON BEHAVIOUR

Understanding bison behaviour will make it easier for you to work with your bison. The following two concepts will make handling these animals a lot easier.

- Understanding basic prey animal behaviour and motivations
- Understanding the bison flight zone

In the eyes of the bison, you, your dog, or any other person may be seen as a predator. Prey animals are more at ease when they know where and what their potential attacker is doing.

Bison are social animals. They like to live and move in groups. Therefore, it is always easier to move and work with bison when they can be with or near others.

Bison like to follow the leader. If you can get the first animal to move through a gate or chute, the others will follow. That is why most chutes are designed to hold at least three animals in a row. Animals will move much more easily when they can follow each other.

Like cattle, bison will stop if they seem to be approaching a dead end or a sharp turn. For this reason most chutes are curved rather than straight. Then the bison can always see part of the animal ahead of them. Don’t frustrate them by forcing them into a chute before they can see where they are going. This may just cause the animal to become immobilized with fear.

The following chart explains possible causes for balking, and the solutions that should be used to alleviate the problems.

<table>
<thead>
<tr>
<th>CAUSE</th>
<th>EXAMPLE</th>
<th>SOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bison can’t see</td>
<td>Entering a dark area. Can’t find the exit.</td>
<td>Add light. Jiggle door, add light.</td>
</tr>
<tr>
<td>Wrong Group Site</td>
<td>Single bison. Over crowded.</td>
<td>Add herd mates – three bison minimum. Open up the area. Work fewer animals.</td>
</tr>
</tbody>
</table>

THE FLIGHT ZONE

The flight zone is simply the distance a threat must be away from an animal before it will begin to move away from the threat. For instance, if you saw an angry mother bear coming up the trail from quite a distance, how close would you let her come before you moved out of her way?!!
This would be your flight zone. Now, obviously some of us would move more quickly than others; well this is the same as the bison will respond. Some will feel more comfortable than others. The flight zone will also vary from herd to herd, and in different situations. Therefore you need to be able to read the herd.

If you increase the pressure on them by coming into their flight zone, then you can get them to move. However, if you put on too much pressure you may cause them to panic. Similarly, if that mother bear began to run towards you it may cause panic. This means it is important to understand where the flight zone is, and stay at the edge of it. If you have too little pressure, you won’t be going anywhere. If you have too much pressure, you might be left in the dust!

**LET’S HAVE SOME FUN!**

**BISON HANDLING**

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

Now that you understand bison behaviour a little better let’s do something for fun. Let’s create a fun keepsake to keep with this module. Let’s create a collage.

This module has focused on handling bison. There are some bison publications that most bison producers probably have – ‘The Tracker’ and ‘Smoke Signals’ would be a couple of these.

• See if you can get a few old publications from someone.
• Using these magazines or the internet try to get pictures of bison to create your collage.
• Focus on some of the things you’ve learned.
• Look for pictures of people working with bison, handling facilities, etc.
• The collage could include fun pictures or be more serious.
• Be sure you put a title on your collage.
• You may also want to write a caption with each picture.
• Be creative and use your imagination.
• You can use any size paper as a background. You can put the collage in your record book or make a large one to put on your wall.
SOLUTIONS!

BISON HANDLING

MORE! MORE! MORE!
If you have enjoyed what you learned in this module, ask your leader about looking at the Alberta 4-H Bison Project books.

RESOURCES USED TO CREATE THIS MODULE
Information used to create this module was obtained from The Alberta 4-H Bison Project Resources – Member Level One book published by the 4-H Branch, Alberta Agriculture, Food and Rural Development.
ALTERNATE LIVESTOCK MODULE: **LLAMA**

What animal can say “I am a terrific pet, a pack animal, a sheep guard, an entertainer, a race companion, a wool producer and a cart puller”? If you don’t know the answer to this question read on to find out what it is.

**WHAT WILL WE LEARN?**

In this module we will introduce you to the llama, a South American member of the Camelid family. You will learn some interesting facts about llamas, which will help you understand this creature a little better.

**WHO CAN HELP?**

If you don’t have a leader that can help you out with this module perhaps one of your leaders knows someone that raises llamas that would be able to assist you. It would be beneficial, and a lot of fun to spend some time on a farm where there are llamas. They are a unique animal and interesting to watch as they have unusual behaviors that make them fun to get to know.

**WHAT DO YOU NEED?**

The pages included in this module are all you need to complete it.

**LET’S GET EDUCATED!**

Llamas are South American members of the Camelid family. There are four species of South American Camelids. Llamas and alpacas are the domesticated Camelids. Guanacos and vicunas are wild. Over the centuries, llamas have been developed mainly as work animals, and alpacas as wool producers. Depending on its fineness, llama fiber can be used to make ropes, blankets, decorative wall hangings, or clothing.

Llamas have drawn much attention as pets, pack animals, sheep guards, entertainers, race companions, wool producers, and cart pullers.

Llamas are very intelligent and their calm disposition makes them a favorite with many people. They are easy to train. In just a few repetitions they will pick up and retain many behaviors such as accepting a halter, being fed, loading in and out of a vehicle, and pulling a cart or carrying a pack.

When training a llama, it is very important to remember that practicing with the llama often and repeating the actions will help the llama become familiar with what is expected. Be sure to give the llama verbal praise as it completes the required task. As the llama works with the trainer, the llama learns to trust the trainer and becomes more and more cooperative.

To help a llama become comfortable with being touched, move slowly and talk softly so the llama will relax. Stroke the llama while talking and move to different areas such as the
head, legs and belly. This is called desensitizing the llama. Eventually, the llama will become comfortable with being stroked all over its body.

Llamas are unique animals in appearance, habit, and disposition. They stand three to four feet tall at the shoulder and weigh from 250-400 pounds as adults. They have a long neck, erect curved ears, large doe-like eyes, and a unique cloven foot.

The llama’s upper lip is cleft and prehensile, meaning able to grasp. Like all other ruminants, they have front teeth only on the lower jaw.

**THE LLAMA**

Included in the diagram are some of the most common llama body parts.

The llama has two types of grease-free fiber in its coat: a long, coarse guard hair fiber which aids in air circulation, and a shorter, light-weight, finer fiber which helps keep the animal warm in cold weather. Llama fiber comes in a wide variety of colors: white, brown, black, rust, grey, and all shades thereof. The fiber length ranges from 3 to 12 inches or more.

Llamas may live as long as 25 years.

Like human beings and other animals, each llama has a different temperament. Some are shy and cautious, some like to be cuddled, while others hate to be touched. Most llamas, however, are curious about the world and interested in anything that is not familiar to them. They usually prefer to spend their time with other llamas, but are very willing to work with people when it means that they can enjoy doing new and different things, being with other
llamas and seeing new sights. By nature, llamas are social animals, which means that they need to be with other llamas.

Llamas may hold their ears back when they are bored, or to listen to something behind them, but if they lift their noses, and hold their ears close to their necks, this often means that they are about to spit. It is as if they are saying to the other llamas, “I don’t like what you are doing, and if you don’t watch out, I’ll get you!”

There are no real “breeds” of llamas as there are of dogs and horses, but there are three general types of llamas recognized. These are “heavy-wooled,” “medium-wooled,” and “light-wooled” llamas. As mentioned previously, the llama’s coat generally consists of two kinds of fiber. Guard hairs are long and shiny, while the fiber in the undercoat is soft and fine, more like sheep wool or a dog’s undercoat. The fine undercoat is what is used for spinning and weaving.

**LET’S HAVE SOME FUN!**
To test your memory! See if you can remember these basic llama parts. **Check the diagram on the preceeding page** to see how many you got correct.

A. ______________________
B. ______________________
C. ______________________
D. ______________________
E. ______________________
F. ______________________
G. ______________________
H. ______________________
I. ______________________
J. ______________________
K. ______________________
L. ______________________
M. ______________________
CANDID LLAMAS

Llamas truly are a interesting creatures. They are entertaining to watch as they do have some unique behaviours. As suggested earlier in this module it would be beneficial to visit a farm that raises llamas. If this is possible, we suggest taking your camera along and create a CANDID LLAMA photo shoot. You can use a digital camera, a 35mm or even a disposable – whatever you have access to. Take snapshots of llamas eating, sleeping, interacting with other llamas or other animals, interacting with people, etc. etc. You can simply put your photos in a small album adding a title and date, or you can be more creative and use some scrapbook techniques, adding colored paper, stickers and using coloured markers for journaling. Have fun with this project and make it part of your Exploring 4-H Book.

If it is not possible to complete this photo shoot, you may want to find some pictures of llamas in magazines or on the internet that you could use to create a picture booklet.

MORE! MORE! MORE!

If this module sparked an interest in you, to learn more about llamas and perhaps take one as a 4-H project, talk to your leader about getting more information. If you don’t own a llama and would like to purchase, or perhaps borrow one to use as a 4-H Project your leader may be able to help you get in touch with someone that could assist you.

RESOURCES USED TO CREATE THIS MODULE