

# Agriculture Awareness



**Guide for Volunteers  
and Members**

**4H**  
**Ontario**



**2004**

## **The 4-H PLEDGE**

"I pledge  
My HEAD to clearer thinking,  
My HEART to greater loyalty,  
My HANDS to larger service,  
My HEALTH to better living,  
For my club, my community and my country."



## **The Mission of 4-H Ontario:**

"4-H is dedicated to the personal development of youth while providing a positive impact on volunteers and communities in Ontario."

## **The 4-H Motto:**

"Learn To Do By Doing"

The Agriculture Awareness Project was created by Colleen Arbuckle, Melanie Lennox and Naomi Lutes

### **For More Information:**

#### **4-H Ontario**

R.R. #5 Guelph, ON N1H 6J2

Phone: (877) 410-6748

Fax: (519) 824-8759

[www.4-hontario.ca](http://www.4-hontario.ca)

email: [inquires@4-hontario.ca](mailto:inquires@4-hontario.ca)

#### **Canadian 4-H Council**

Central Experimental Farm

930 Carling Ave. Bldg.# 26

Ottawa, ON K1A 0C6

Fax: (613) 234-1112

[www.4-h-canada.ca](http://www.4-h-canada.ca)

Or contact your local 4-H association.

# Introduction

## Welcome to the 4-H Agriculture Awareness project!

The purpose of the 4-H Agriculture Awareness project is to better understand the importance of agriculture and the agri-food industry, the issues affecting the industry and the impacts agriculture has on the world. Without the agriculture industry, we would be unable to sustain the quality of life that we have taken for granted for centuries.

This project is not only an educational tool but a promotional one. There is information on both agricultural topics and promotional media so members can promote agriculture and share their new knowledge.

### Project Objectives:

- to educate youth about agriculture
- to encourage the promotion of agriculture and 4-H in peer groups, schools and communities
- to educate 4-H members about agricultural safety on and off the farm
- to teach good public relations and promotional tools

### Format:

This project is divided into three sections. The first section includes meetings, activities and leader information for the meeting. The second section has agriculture cards, which explore specific topics in agriculture. The third section has promotion cards, each one about a different method of promotion. Each year, new cards can be added to the project so it can be continually updated and expanded.

### General Requirements:

In order to receive recognition for completing the Agriculture Awareness project, a member must be a “member in good standing.” This means that a member must:

- ⇒ participate in at least 2/3 of his/her club time
- ⇒ complete the project to the satisfaction of the club leader
- ⇒ take part in the achievement program
- ⇒ have paid the annual 4-H membership fee

## How to Use this Manual

Welcome to the Agriculture Awareness project!

This manual is divided into different sections of activities, “cards” and meetings.

**Section 1** of this manual contains meetings and the accompanying activities. The meeting sheets include general information on an agricultural topic. The meeting sheets should be used in combination with the agriculture and promotion cards. Section 1 also has a leader page for each meeting with suggestions. Please note that the times in brackets are suggestions only. The activities reiterate the message of the meeting.

**Section 2** of this manual contains agriculture cards. Each card deals with a specific agricultural topic. You can use one, two or three of these cards at each meeting. These cards can be incorporated into the general meeting topic.

**Section 3** of this manual contains promotion cards. These cards teach members how to use different media to promote agriculture.

You will also find additional activities and resources in this manual, as well as ideas for senior members.

### **To prepare manuals for the members:**

- Read over the master manual and decide which activities, Ag cards and promotion cards you would like to use to make the agriculture awareness project that is ideal for your members at this time. There are no right or wrong sheets that must be used.
- Print or photocopy the sheets you require.
- Distribute the sheets in manual form or as fact sheets before each meeting.
- Have fun and enjoy the project!

## Achievement Ideas

1. Create a presentation on one of the topics covered in this project. Arrange to present at a local school or local council meeting.
2. Create a large display on one of the topics covered and enter it at a local fair.
3. Create a press release on a current topic in agriculture and send it to a newspaper.
4. Create a video on an issue discussed. Show the video at a fair or school.
5. Approach a reporter, newspaper or local magazine and set up an interview about an agricultural topic or upcoming event. Research the issue or event in preparation for the interview.
6. Arrange a tour of a farm, food processing plant or grocery store. Emphasize the important role agriculture plays in the food processing chain.
7. Organize a farm or animal safety event to promote safety awareness. This could involve 4-H members, families or a local school.
8. Enter a float in a local parade to promote awareness of a particular agricultural topic. Distribute brochures or flyers to reach those passing by.
9. Use the Internet to promote agriculture. Set up a web page, group or chat room to discuss agricultural issues.
10. Set up a display in a public area to educate the public about a topic covered in this project. Make sure you have permission to set up the display.
11. Think of your own project idea and discuss it with the club leader.

## Project Planning Chart

For Volunteers and Youth Leaders of the 4-H Agriculture Awareness Project

Meeting	Date	Time	Place	Equipment and Materials Required	Ideas
1					
2					
3					
4					
5					
6					
Achievement Program					

## Club Membership

**Get involved! Be willing to let your name stand for an executive position. It is a rewarding and fun experience. Following your club's elections, complete this membership and executive chart.**

**Club Executive:**

	NAME	PHONE
<b>PRESIDENT</b>		
<b>VICE – PRESIDENT</b>		
<b>SECRETARY</b>		
<b>TREASURER</b>		
<b>PRESS REPORTER</b>		
<b>OTHER</b>		

**Club Membership:**

MEMBER'S NAME AND PHONE #	MEMBER'S NAME AND PHONE #
<b>LEADER'S NAME AND PHONE #</b>	

<b>Meeting Schedule</b>
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	DATE	TIME	PLACE
Meeting ONE			
Meeting TWO			
Meeting THREE			
Meeting FOUR			
Meeting FIVE			
Meeting SIX			
Achievement Program			





# Agriculture Awareness Project

*Congratulations on successfully completing  
this 4-H project.*

\_\_\_\_\_  
*Name*

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
*Date*

\_\_\_\_\_  
*Club Leader's Signature*

# Project Summary – Agriculture Awareness

(to be completed at the end of the project)

## A. Member Comments:

I joined this club because \_\_\_\_\_

\_\_\_\_\_

I really enjoyed \_\_\_\_\_

\_\_\_\_\_

I didn't enjoy

\_\_\_\_\_

\_\_\_\_\_

If I were to take this project again, I would change \_\_\_\_\_

\_\_\_\_\_

I learned \_\_\_\_\_

\_\_\_\_\_

I'm glad \_\_\_\_\_

\_\_\_\_\_

## B. Parent/Guardian Comments:

\_\_\_\_\_

\_\_\_\_\_

## C. Leader Comments:

\_\_\_\_\_

\_\_\_\_\_

# Meeting #1 – Introduction to Agriculture: Leader Preparation

In this meeting, members will learn about the history of agriculture and its importance to Canadians.

## **Introduction to Agriculture:** (10 minutes)

Roll Call: What comes to mind when you think of agriculture?

- Briefly outline the evolution of agriculture and how it has changed over time.
- Emphasize how agriculture has changed in the last hundred years and how new technology means greater yield and efficiency.

## **Ag Cards:** (10 – 20 minutes)

Select one or more agriculture cards to complement an introduction to agriculture. Some suggestions are: “Agricultural Issues”, “Food Processing” and “Agriculture Terms and Facts”

## **Promotion Cards:** (15 – 20 minutes)

Select a promotion card from the promotion card section. Review the type of media chosen and relate it to agriculture.

## **Activities:** (choose one or more)

### 1. “How Much do you Know about Canadian Agriculture?” (10 – 20 minutes)

This activity has a game show style format and quizzes members on their knowledge of agriculture in Canada. See the answer sheet for answers to the questions.

### 2. “Soil and Apple Challenges” (10 – 20 minutes)

Review the instructions for the activities. You will need soil, apples and a knife. The soil challenge illustrates how much of the Earth’s surface is left for agriculture. Note that this isn’t necessarily land that is well suited for agricultural use. The apple challenge demonstrates how much land is suitable for farming.

Debrief: Only 1/32 of land is suitable for agricultural use. Of this, much is used up by industrial, commercial and residential use. How can this land be protected and what will happen if it isn’t?

## **Digging Deeper:**

Suggestions for senior members:

- research the development of one specific agricultural commodity (history of dairy cows, development of barley etc)
- prepare a demonstration or activity for the club to explain the history of agriculture

## Meeting #1:

### INTRODUCTION TO AGRICULTURE

#### Roll Call:

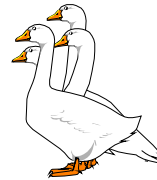
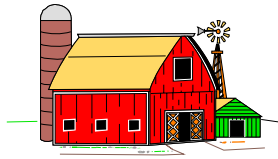
*What comes to your mind when you think of “agriculture”?*

### A Brief History of Agriculture

Neolithic era	<ul style="list-style-type: none"><li>★ hunter-gatherer societies began to make settlements</li><li>★ animals began to be domesticated</li><li>★ pasture and food was needed and crops were planted</li><li>★ wheat, barley, flax, rice, millet, squash and legumes were grown</li></ul>
2500 B.C. – 500 A.D.	<ul style="list-style-type: none"><li>★ the horse was domesticated in Mesopotamia</li><li>★ improvements in tools, storage and equipment were made</li><li>★ irrigation systems were used in China, Egypt and the Middle East</li><li>★ fertilizer and crop rotation were introduced</li></ul>
The Middle Ages	<ul style="list-style-type: none"><li>★ maize (corn), beans and squash were the main crops in North America</li><li>★ in Europe, farming developed under the Feudal system</li><li>★ trade increased as a result of the Crusades</li></ul>
1600-1750	<ul style="list-style-type: none"><li>★ European settlers brought livestock, seeds and their agricultural practices to North America</li><li>★ first farming settlement in Port Royal, Acadia (Nova Scotia) in 1606</li><li>★ scythes, sickles and oxen were used to plough, plant and harvest</li><li>★ first farm in the St. Lawrence region in 1617</li></ul>
1750-1867	<ul style="list-style-type: none"><li>★ increase in settlement and farming in Ontario</li><li>★ wheat was exported to Lower Canada (Quebec) and Great Britain</li><li>★ ploughs were introduced in 1815</li><li>★ crop rotation became a common practice</li><li>★ arrival of British traders in 1763</li></ul>
1867- 1950	<ul style="list-style-type: none"><li>★ movement of settlers to western Canada</li><li>★ steam powered engines and tractors were introduced</li><li>★ dairy farming became popular in central Canada</li><li>★ Great Depression during the 1930s hurt farmers across Canada</li></ul>

## What is Agriculture?

Agriculture is defined as the science, art and industry of managing the growth of plants and animals for human use. The word 'agriculture' comes from the Latin words *ager* and *cultura*, meaning field and cultivation. What does agriculture mean to you?



## New Farming Methods:

One farmer could feed about 12 people in 1900. Now, each Canadian farmer feeds over 120 people. This is possible through advanced farming practices. New techniques of managing livestock and cultivating crops mean farmers can produce their commodity more efficiently. Some of these new changes and techniques include better medicines for animals, improved genetics of plants and animals, efficient farm machinery and equipment, new fertilizers and safer pesticides.

## How important is Agriculture?

When you think of agriculture, you probably don't think of sunscreen or tennis racquets. Instead, you probably associate agriculture with sheep or corn. The reality is that agriculture is everywhere and involved in most of the products we use every day. Agricultural products are used in everything from food to medicine to clothing. One of Canada's most important industries is agriculture and food. It is the second largest industry in Canada. In 1999, Ontario alone exported \$1.5 billion of farm products.

## ***Digging Deeper for Senior Members***

Find out how agriculture has changed over the years in your area. Make a timeline, poster or display and present it at the next meeting.

## **Activity:**

### **How Much Do You Know About Canadian Agriculture?**

#### **What's on the Dinner Table?**

##### **\$100 – True or False:**

The average Canadian consumes 88 L of milk each year.

##### **\$200**

The average Canadian will consume about 75 kg of what Maritime vegetable yearly?

##### **\$300**

The average Canadian consumes about how many dozen eggs per year?

- a) 2                      b) 12                      c) 5                      d) 15

##### **\$400 – True or False:**

The average Canadian will eat 20 L of ice cream a year.

##### **\$500**

How many servings of grain products should a person eat each day according to Canada's Food Guide?

---

#### **Food Safety**

##### **\$100 – True or False:**

You should wash your hands before preparing food.

##### **\$200**

If imported food does not meet Canadian standards, it is:

- a) destroyed or sent back      b) turned into pet food      c) sent to the supermarket

##### **\$300 – Which is not true?**

- a) Grocers and restaurant owners purchase high quality food products
- b) Grocery stores are kept clean
- c) Grocery stores buy low quality food

##### **\$400**

It is important that the farmer give clean water, nutritious food and a healthy environment to what?

##### **\$500**

Who should clean, chill, cook and separate their products?

## **The Agri – Food System**

### **\$100 – True or False**

Consumers spend \$94.7 billion on food every year

### **\$200**

About how many farms are there in Canada?

- a) 5000      b) 15,000      c) 75,000      d) 250,000

### **\$300**

Name a place that distributes food to the customer.

### **\$400**

Changing food into different products is called:

- a) processing      b) changing      c) cleaning      d) manufacturing

### **\$500**

What fraction of Canadians work in the agri-food system?

- a) 1 in 5      b) 1 in 7      c) 1 in 18      d) 1 in 25
- 

## **4-H Knowledge**

### **\$100**

What do the 4 'H's in 4-H stand for?

### **\$200**

What is the name of the 4-H conference available for 13 and 14 year olds?

### **\$300**

What is the 4-H motto?

### **\$400**

Where is the 4-H Ontario office located?

### **\$500**

Recite the 4-H grace.

## **Farm Animals**

**\$100**

What do you call a group of cattle?

**\$200**

How many stomachs does a sheep have?

**\$300**

Name two food products that come from a chicken.

**\$400**

Name three steps that eggs go through to get from the farm to the grocery store.

**\$500 – True or False:**

An average hen will lay about 300 eggs each year.

---

## **Miscellaneous**

**\$100 – True or False:**

A farmer produces enough food to feed over 120 people per year.

**\$200**

Name two of the four types of farming in Canada.

**\$300**

What percentage of Canadian farms are family owned and operated?

a) 98%      b) 50%      c) 2%      d) 80%

**\$400**

Which of the following industries are related to agriculture?

a) banking      b) steel manufacturing      c) food processing      d) all of the above

**\$500**

What percentage of Canadians are farmers?



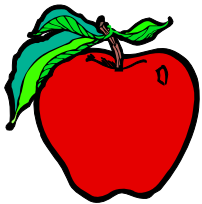
## Activity: Soil and Apple Challenges

The following activities demonstrate how much of the earth's surface is suitable for agriculture.

### The Soil Challenge:



1. Take a handful of soil from a field or a garden.
2. How much of the handful of soil do you think represents agriculture?
3. Drop  $\frac{3}{4}$  of the soil. This is how much of the earth is covered in water.
4. Drop  $\frac{1}{2}$  of the remaining soil. This is how much land is not suitable for agriculture.
5. Drop  $\frac{1}{3}$  of the remaining soil. This is the amount of land lost to urbanization.
6. Look at what remains. This is the amount of land left for agriculture.
7. Is all of the soil left in your hand good agricultural land? Why or why not?



### The Apple Test:

1. Take an apple – (this represents the earth) and slice it into four quarters.
2. Set aside 3 of the 4 pieces – this is the amount of the earth covered in water.
3. Slice the remaining piece in half. One half represents land inhabitable for people. Set that half aside.
4. Cut the remaining piece into four equal sections. Three of these sections represent land that is too rocky, wet, cold, steep or has been developed into urban areas.
5. Peel the skin from the remaining piece. This represents the surface of the earth that is available for farming.

You are left with the skin (the earth's surface) of  $\frac{1}{32}$  of the entire apple (the earth) that is suitable for agricultural use. This test shows how little good land is left for farming. This small amount of land is able to feed the entire world population, but is threatened by increasing population, urbanization, development, the environment and even farming itself, which takes nutrients out of the soil over time.

- What kinds of farming techniques are used to conserve soil and farm land?
- How can agricultural land be protected?

# **Meeting 1 Activity:**

## **How much do You Know about Canadian Agriculture?**

### **Answer Sheet**

#### **What's On the Dinner Table?**

**\$100**

True

**\$200**

The average Canadian will consume about 75 kg of potatoes each year

**\$300**

b) about 12 dozen eggs each year

**\$400**

False – they will eat about 10 L of ice cream

**\$500**

According to Canada's food guide, we should eat 5-12 servings of grain products.

#### **Food Safety**

**\$100**

True – always wash your hands before preparing food

**\$200**

a) destroyed or sent back

**\$300**

c) grocery stores buy low quality foods – not true

**\$400**

Clean water, nutritious food and a healthy environment should be provided to all animals

**\$500**

The consumer should clean, chill, cook and separate their products.

#### **The Agri – Food System**

**\$100**

True, consumers spend \$94.7 billion on food each year

**\$200**

d) 250 000 farms in Canada according to 2001 StatsCan statistics

**\$300**

Grocery store, supermarket etc.

**\$400**

a) processing

**\$500**

b) 1 in 7 Canadians work in the agri-food system.

#### **4-H Knowledge**

**\$100**

The 4 'H's stand for Head, Heart, Hands and Health

**\$200**

4-H Members' Conference

**\$300**

The 4-H motto is "Learn to do by doing."

**\$400**

The 4-H Ontario office is located in Guelph, Ontario in the Gencor building.

**\$500**

The 4-H grace:

"We thank thee Lord for blessings great,

In this our own fair land.

Teach us to serve thee joyfully,

With head, heart, health and hands."

#### **Farm Animals**

**\$100**

A group of cattle is called a herd.

**\$200**

A sheep is a ruminant and so has four stomachs.

**\$300**

Eggs, meat

**\$400**

eggs: laying, gathered, shipped, candled, inspected, cleaned, packaged, shipped to store

**\$500**

True

## **Miscellaneous**

**\$100**

True

**\$200**

3 of: livestock, grains and oilseeds, fruits and vegetables, mixed farming

**\$300**

98% of Canadian farms are family owned and operated.

**\$400**

d) all of the above industries are related to agriculture

**\$500**

Less than 3% of Canadians are farmers.

## Meeting #2 – The Agri-Food Industry: Leader Preparation

In this meeting, members will learn about the food processing industry and the chain of agricultural products. They will also learn how agriculture is a part of our everyday lives.

### **The Agri-Food Industry:** (10 minutes)

Roll Call: Name a type of crop grown in your area. (suggestions: corn, wheat, soybeans, barley, alfalfa, fruit crops, canola, oats)

Agriculture is a vital part of the Canadian economy, as well as being important for the individual consumer. There are many people and products involved in the industry, as the flow chart illustrates for the production of a grain food product.

### **Ag Cards:** (10 – 20 minutes)

Select one or more agriculture cards to complement the agri-food industry meeting. Some suggestions are: “Agricultural Issues”, “Food Processing”, and “Organic Foods”

### **Promotion Cards:** (15 – 20 minutes)

Select a promotion card from the promotion card section. After talking about the method of promotion and how to make it effective, relate it to the agri-food industry.

### **Activities:** (choose one or more)

#### 1. What Agricultural Products do you Use? (5 – 10 minutes)

In this activity, members are asked to list the products they use every day that can be traced back to agriculture.

#### Alternate Activity:

Set a tray on the table with various products in it (at least half products of animals) and ask members to write down all the animal by-products they see around them (don't forget their clothes and such)

#### 2. The Importance of Agriculture (5 – 10 minutes)

Debrief: We depend heavily on agriculture, and in turn agriculture depends on the consumer to sustain the industry. Many of the things we take for granted and use everyday can be directly linked to the agri-food industry.

### **Digging Deeper:**

Suggestions:

- ask members to find out about other ways people are involved in the agri-food industry
- talk about careers in agriculture: - research, manufacturing, sales, education, marketing, genetics, finance

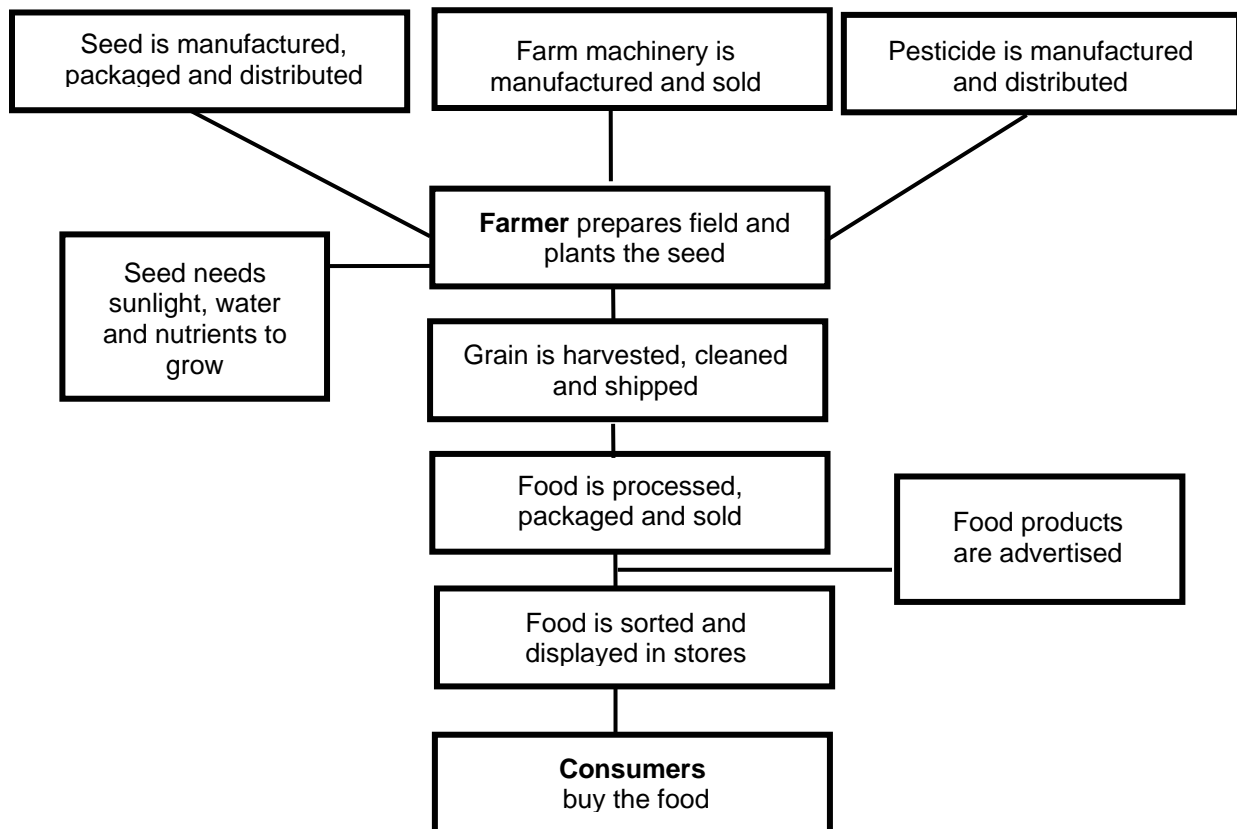
## Meeting #2: THE AGRI – FOOD INDUSTRY

### Roll Call:

Name a type of crop grown in your area.

### Who is involved in the agriculture industry?

Sit down and think about how many people are involved in agriculture. From farm to table, there are many links in the food processing chain.



This is only one product in the agricultural chain. Now think of the steps involved in the production of dairy products, meat or fruit. How is the chain different? Is it more or less complex?

### **Do We Need Agriculture?**

Believe it or not, agriculture is a vital part of our lives. Maybe you think of agriculture as animals and grain, but it is much more than that. The agriculture industry employs one out of seven Canadians – that's around 1.9 million people! Not only does agriculture employ millions of Canadians, it impacts our lives every day. By-products of agriculture are found in everything from medicine to clothes to cosmetics to cleaning supplies – not to mention food products.

Did you know that...?

- Diabetic test strips contain an enzyme found in horseradish?
- Camera film is made using gelatin from cattle bones?
- Some cosmetics and shampoos contain oats?
- In operations and surgery, anesthetics contain eggs?

### **Agriculture Facts ...**

- ❖ If you were to spin the fleece of one sheep, it would produce a strand that would stretch 200 km – that's as long as the distance from Ottawa to Montreal!
- ❖ The 7 most common breeds of beef cattle in Ontario are Hereford, Angus, Shorthorn, Limousin, Charolais, Simmental and Blonde d'Aquitaine
- ❖ The most common breeds of dairy cattle in Ontario are Holstein, Jersey, Ayrshire, Brown Swiss, Guernsey and Milking Shorthorn.
- ❖ In Ontario, it takes 1 – 1.5 kilograms of feed to produce one dozen eggs; 1.9 kilograms of feed to produce one kilogram of chicken; an average of 3.5 kilograms of feed to produce one kilogram of pork and about 5 kilograms of feed and roughage to produce 1 kilogram of beef.
- ❖ The most commonly grown field crops in Ontario are corn, wheat, barley, oats and soybeans.
- ❖ In 2001, crops were farmed on 89.9 million acres of land in Canada.

## ACTIVITY:

### What Agricultural Products Do We Use in a Day?

1. Think about all the products that you use every day. (food, school supplies, clothes, cosmetics, etc)
2. How many of these are related to agriculture or agricultural products?
3. In the spaces below, list the products in the different categories.
4. After 5 – 10 minutes, read the lists to the rest of the club and write the answers on a large sheet of paper.
5. Could you live without any of these agricultural products?

**Food Products or By-Products:**

**Medications:**

**Clothing and Textiles:**

**Other:**



## **Activity:**

### **The Importance of Agriculture**

#### **Part #1:**

In groups of two or three, have members brainstorm all of the jobs involved in the production of the following:

#### **MILK:**

- ⇒ Think of everyone associated with milk production, starting with the cow on the farm and ending with the family at the table drinking milk.
- ⇒ Share the list with the rest of the club.
- ⇒ How many people did the club think of?



#### **APPLES:**

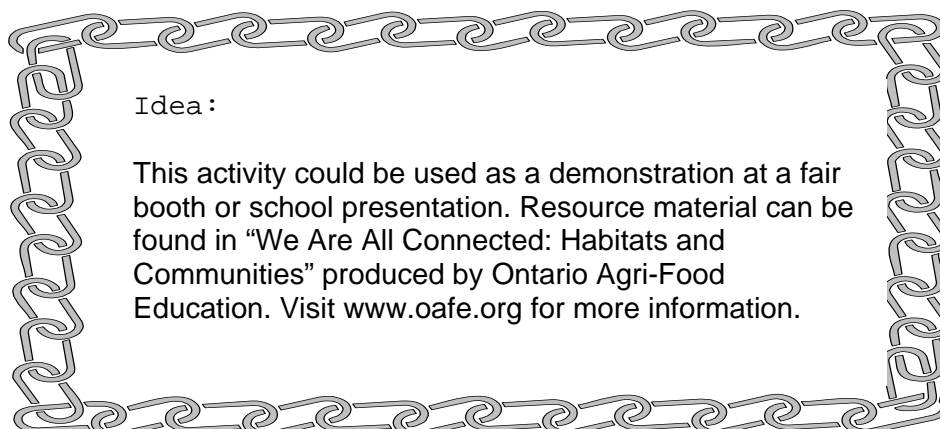
- ⇒ Think of everyone involved in the farming, production and harvesting of apples.
- ⇒ Don't forget the jobs involved after the apples leave the farm.
- ⇒ Share the list with the rest of the club.
- ⇒ How many people were involved in apple farming?



#### **Part #2:**

- ⇒ Assign a job on the list to each person. (You can use milk, apples or both)
- ⇒ Ask what would happen if one of the jobs was taken out.
- ⇒ Would the chain fall apart?
- ⇒ Who would be hurt if some jobs were omitted?

An adaptation of Part 2 would be to create an “Unsupported Circle” and discuss what would happen if a person(s) were removed. Instructions for an Unsupported Circle can be found in the Leader Preparation section.



Idea :

This activity could be used as a demonstration at a fair booth or school presentation. Resource material can be found in “We Are All Connected: Habitats and Communities” produced by Ontario Agri-Food Education. Visit [www.oafe.org](http://www.oafe.org) for more information.

## **Meeting 2 Activity**

### **The Importance of Agriculture**

### **Unsupported Circle**

#### **Unsupported Circle:**

This game is also called “Knees”. The group stands in a circle, shoulder to shoulder. All turn and face the same way. Then gently sit down the knees of the person behind you. If gravity wins, try again! Then see how many tricks you can perform while perched on each other's knees.

This circle can be used in the Importance of Agriculture Activity as a method of creating a chain. This can demonstrate how each part of the agriculture industry has an effect on the others.

This activity can be found with other great social recreation activities in the Group Games and Social Recreation resource available through your Association Resource Contact.

## **Activity:**

# *Grocery Store Detectives*

The agri-food industry is a consumer-driven market and supermarkets compete for customers' business, often through low prices. In this activity, members will compare and investigate meat and produce prices advertised in grocery store flyers.

**You will need:** grocery store flyers (or have members bring their own), scissors, pens, paper, map of North America (optional).

1. Circle or cut out 2-3 advertisements for different types of products in grocery store flyers.
2. Where do these products come from?
3. Who is involved in getting them to the customer?
4. Brainstorm everyone involved in the production of one of your circled items.
5. If possible, locate the products on a map.
6. What extra costs do you think might be involved with non-local products?
7. Pick one of the specials you have cut out. Write down the price per kg. Compare the unit prices with other members.
8. If possible, find out how much a local producer gets paid for the circled product.

### **Debrief:**

There is usually a large discrepancy between the price consumers pay for a product and the amount a producer is paid for that product. We all want to save money at the store, but it is important to remember the producer at the other end of the agri-food chain. Who sets the prices and what factors contribute to that price?

*Adapted from OAFE's "The Supermarket" Publication.*

## Meeting #3 – Agriculture and the Environment: Leader Preparation

In this meeting, members will learn about agriculture and its impact on the environment.

**Agriculture and the Environment:** (10 – 15 minutes)

Roll Call: Name one way in which agriculture has an impact on the environment. (suggestions: water quality, land use, animals, plant life, pesticides, nutrients in soil)

- Outline concerns about agriculture and the environment.
- Discuss changes in agriculture and the resulting problems and benefits

**Ag Cards:** (10 – 20 minutes)

Select one or more agriculture cards that discuss agriculture and the environment. Some suggestions are: “Organic Foods”, “Global Warming”, “Pesticides” and “Nutrient Management”

**Promotion Cards:** (15 – 20 minutes)

Select a promotion card from the promotion card section. Review the type of media discussed and relate it to promoting agriculture.

**Activities:** (choose one or more)

1. The Pesticide Game (15 – 20 minutes)

This activity demonstrates the effects of pesticides on animals and the food chain. You will need about 25 squares each of coloured and white paper.

2. Role Playing (15 – 20 minutes)

This activity gets members to assume different roles and discuss Roundup Ready soybeans and herbicides. There are five different roles which one or more members can assume. There is also additional background information for the members to read to get into character.

Debrief: Agriculture and pesticide use can be harmful to the environment and animals. If managed properly, however, using pesticides increases crop yields and makes more efficient use of land and resources. New technology can be beneficial to the environment as well as to farmers.

**Meeting #3:  
Agriculture and the  
Environment**

**Roll Call:**

*Name one way in which agriculture has an impact on the environment.*

**Agriculture and the Environment**

Over the years, there has been an increased concern about agriculture's effect on the environment. Some of the concerns that have been raised include:

- effects of pesticides, herbicides and other chemicals
- erosion and loss of topsoil
- disposal of manure
- water safety due to runoff and seepage
- global warming
- use of non-renewable energy such as fossil fuels
- genetically modified plants
- damage to natural eco-systems
- biosecurity

Proper management and control can help protect the environment. It is not agriculture that harms the environment, but improper management of some aspects of agriculture.

**Agriculture Today**Specialization:

Specialization is a type of farming that concentrates on just one type of livestock or crop. One of the problems involved with this type of farming is waste disposal. Local water supplies might be polluted if waste is not properly managed. Specialization of crops can also create environmental problems because several similar crops reduce biodiversity. A decrease in biodiversity could then encourage excessive growth of certain wildlife populations, pests or diseases.

### Fertilizers:

Fertilizer is a product that is used to enrich (or make up for a lack of) the nutrients in the soil in order to promote plant growth. There are three main components in all fertilizers: nitrogen, phosphorus and potassium. A 5-10-5 fertilizer, for example, contains 5 % nitrogen, 10 % phosphorus and 5 % potassium. Compost is a form of fertilizer and has a composition of about 1-1-1. There are some concerns about overuse of fertilizer because it can cause water quality problems if it seeps into streams or lakes. If used improperly, fertilizer can also burn or damage crops or grass. With proper management, fertilizer has many benefits and has allowed farmers to produce a more abundant crop yield. Higher crop yield also means that farmers need less space. In the last 30 years, Ontario farmland has been reduced by 25% and most of the unused land has been turned back into wildlife environments.

### Irrigation:

Irrigation means supplying an area with water to help crops grow. It is necessary in some areas because of lack of rain or water supply. Irrigation occurs when water is brought to fields by pipes, ditches or canals. This allows fields to get a proper amount of water, especially during dry weather. One environmental concern involving irrigation is water salinity. Salinity refers to the salt content of the water. Too much salt means less crop yield and can also damage surrounding wildlife habitats. Soil tests can help to monitor the salinity levels of the soil. Proper management and monitoring is required to prevent excess salinity in the water.

### Soil:

The quality of soil and farmland is protected by leaving crop residue such as leaves and stalks in fields over the winter to reduce erosion from wind and rain. This also adds nutrients to the soil. When legumes are tilled into the soil, nutrients are added. Crop rotation also improves soil quality and reduces disease. By rotating which crops are grown in an area, the need for pesticides is reduced.

Effective use of land and good management by farmers helps to protect the environment by feeding more people while using fewer resources.



## **ACTIVITY:**

# The Pesticide Game



The purpose of this activity is to help members identify the effects of poorly managed pesticide use on living organisms and the environment.



### **The Game:**

There are three types of animals in this game: grasshoppers, shrews and hawks. There should be 2 hawks, 6 shrews and 18 grasshoppers. With a smaller group, there should be about one hawk, three shrews and 7-9 grasshoppers. Remember that the biggest group should be grasshoppers. You'll need about 25 squares each of coloured and white paper.

1. Establish a border and scatter the paper within it. This is your playing field. Give each grasshopper a bag. This is its stomach.
2. The grasshoppers have 30 seconds to collect food while the hawks and shrews watch.
3. The shrews can join the game after the 30 seconds are up. Their job is to catch the grasshoppers. When a grasshopper is caught, it must give its stomach bag to the shrew and sit on the sidelines.
4. After a few minutes, let the hawks join the game to catch the shrews. Once the shrews are caught, they should try to catch the grasshoppers. When the shrews are caught, they should sit on the side.
5. After the hawks have been playing for a few minutes, call the game to an end.
6. Count the number of grasshoppers and shrews left in the game. Count the number of squares in the food bags. Make sure to count the white and coloured squares separately.
7. Ask the hawks to empty their food bags and count the number of their squares.
8. The coloured squares represent pesticide. If the grasshoppers have a coloured square in their stomach then they die. If the majority of the squares in the shrews' food bags are coloured, then the shrews also die. The hawk with the most coloured squares will live but will be unable to reproduce. The other hawks will not be affected at this time.

How many people use pesticides in their home, on the farm or in the garden? What effects do pesticides have on animals if they are not properly managed?

*Thanks to OAFE's Using Your Brain: The Urban Use of Pesticides publication.*

# ACTIVITY:

## Role Playing

The purpose of this activity is to give members the opportunity to see all the sides of a story. They may not agree with everything they hear, but hopefully they will be willing to hear all sides and consider different opinions, while defending their own point of view.

### What's Your Role in Agriculture?

In small groups, members should role play the following scenarios. This can take the form of a debate, discussion etc.

**“Roundup Ready” soybeans** -- Roundup Ready soybean varieties contain the Roundup Ready gene, which allows over-the-top applications of Roundup herbicide for broad-spectrum weed control without damage to the soybean plant. Varieties are hardy, drought-resistant, disease-resistant and produce high crop yields.

#### 1) Farmer in favour of “Roundup Ready” soybeans:

You use Roundup Ready soybeans and like this method because it reduces the time and money spent on pesticide and herbicide use. Your soybean yield is also increased by 25%.

#### 2) Farmer opposed to “Roundup Ready” soybeans:

You feel that the quality of soybean produced using this type of product is not as high as regular soybeans.

#### 3) Monsanto scientist:

You work for the company that produces “Roundup Ready” soybeans and have test results that state that there are no health related issues arising from the use of this soybean. You want the farmer to use your product so you can keep your job.

#### 4) The herbicide sprayer/applicator:

You are losing business because farmers are not buying your product. You want to encourage them to continue farming in the traditional way. You state your opposition to “Roundup Ready” soybeans and feel that they are taking away from your business.

#### 5) The consumer:

You are reluctant to try anything that has been genetically modified in any way. You are opposed to the use of “Roundup Ready” soybeans. You feel there is not enough research and testing to support the safety of this technology.

### Background Information:





### **The Farmer:**

- biotechnology is another tool that has been given to farmer to aid them in raising livestock and growing crops
- farmers have the choice to use it or not
- by applying biotechnology to crops or animals you can have more efficient use of water, feed and other natural resources
- less pesticide and herbicide use is better for the environment
- products of biotechnology are regulated and must be approved before use

### **The Consumer:**

- biotechnology poses a hazard to your health and the environment
- there are also ethical and social concerns
- do the risks outweigh the benefits?
- biotechnology is controlled by influential and profit motivated companies
- scientists and government cannot be trusted to regulate the industry because of the power and influence of large companies
- there are no long-term health studies and no way to know about potential damage for humans or the environment
- as a consumer, you should have the choice between traditional and genetically engineered crops and food products and want mandatory labeling

### **The Herbicide Sprayer/Applicator:**

- this form of biotechnology is taking away from the herbicide business
- more products will have to be developed to compete with biotechnology
- no way to know if herbicide resistant crops will sustain resistance or if farmers will lose profit because long term effects are still being researched

### **The Discussion:**

Take turns stating your point of view and responding to questions and comments. Observe proper debating format: all opening arguments first, then rebuttal arguments, then conclusions. Or you can incorporate discussion and question time.

After the discussion, has your opinion changed?

- ⇒ Have you changed your mind because of what somebody said?
- ⇒ What are some of the questions you had while you were discussing the issue?
- ⇒ Did everyone have their questions answered?

More information is available through the Ontario Farm Animal Council and on the Monsanto website at [www.monsanto.com](http://www.monsanto.com).

## Meeting #4 – Animals: Leader Preparation

This meeting introduces members to the livestock side of agriculture in Ontario.

**Animals:** (10 – 15 minutes)

Roll Call: What is your favourite animal?

- Review the different types of livestock in Ontario
- Talk about issues involving animals and farming

**Ag Cards:** (10 - 20 minutes)

Select one or more agriculture card dealing with animals in agriculture. Some suggestions are: “Animal Handling,” “Animal Safety” and “Animal Welfare.”

**Promotion Cards:** (15 – 20 minutes)

Select a promotion card from the promotion card section. Review the promotional medium discussed and relate it to promoting livestock and agriculture.

**Activities:** (choose one or more)

1. Animal Demonstration (15 – 20 minutes)

This activity demonstrates to members the importance of understanding animal behaviour and handling procedures. Find a location where you can work with a calm, trained animal.

2. Animal Senses (10 – 15 minutes)

This activity shows members how differently animals sense their surroundings compared with humans. They should gain an appreciation of their senses and how it affects animal handling. You will need sunglasses, petroleum jelly, cellophane, paper, tape and winter coats.

Debrief: Animals deserve respect! There are many factors that affect animals and their temperament. These factors as well as knowledge of proper animal handling procedures can minimize stress on the animal, as well as making for easy animal behaviour.

## Meeting #4:

# Animals

**Roll Call:** What is your favourite animal and why?

### **Animals and Agriculture:**

Animals are a vital part of agriculture and have many uses. Animals are kept as pets, for meat, eggs, milk products, wool and recreation.

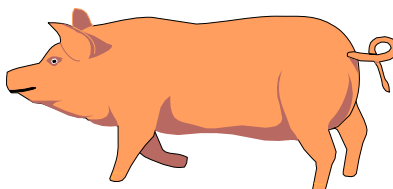
Animals are essential in the production of dairy products, meat and eggs and fibres for clothing. Many animals are 'dual-purpose', meaning that they are used for more than one thing. Different breeds of goats, for example, are used for wool, meat and dairy products like milk and cheese. Some people have questioned whether animal products are necessary as ingredients in many products but animal products are used for more than just food. In many cases, scientists have found that natural ingredients, such as those from animals, are more effective than synthetics and are more environmentally friendly.

### **Feeding:**

All animals have the same basic requirements for food: clean water and adequate feed. The type of feed, however, varies from animal to animal and breed to breed.

### **Livestock:**

The term 'livestock' refers to animals which are kept for sale or for food or other products. Animals such as cows, sheep and horses were domesticated a very long time ago and have become the common types of farmed livestock. There are other, less common types of livestock such as elk, bison, emus and alpacas. These animals are referred to as 'alternative' livestock.



**Livestock in Ontario**

**Beef**

The beef industry is a very important part of agriculture in Ontario. Two of the main types of beef operations are cow-calf and feedlot. On a cow-calf style farm, cows are kept from year to year while their calves are sold shortly after weaning. Cattle spend much of their time grazing on pastures on this type of farm. In a purebred herd, calves are raised as breeding stock and for beef. In a commercial herd, most calves are raised as beef. After weaning, some calves are sold to stocker operations where they are raised mainly on pasture and roughage for several months. They are then sold to feedlot operations where they are “finished.” On a feedlot operation, the feeder cattle are fed and grown until they gain enough weight to be sold for meat.

**Dairy**

Ontario is the second largest milk producer in Canada. In fact, Canada is the world leader in dairy genetics. In Ontario, the most common dairy breeds are Holstein, Jersey, Ayrshire, Guernsey, Brown Swiss and Milking Shorthorn. Dairy cows are usually milked twice a day for about 310 to 315 days of the year. This time during the year is called lactation. In the remaining time, they are “dry cows,” meaning they are not producing milk. A cow must be dried off before she can calve again, and like all mammals, she must have a calf to produce milk.

**Swine**

Another important industry in Ontario is pork. Piglets are born in litters and nursed by the sow for about 2 to 4 weeks and then weaned. After weaning, pigs are fed and grown until they reach a weight of around 100 kg. They are then sold to market and meat producers. Pigs are also sold as breeding stock to other swine farmers.

**Horses**

All horses belong to a certain breed or type depending on their characteristics. Some common types of horses bred in Ontario are draft horses, ponies, stock types, such as quarter horses, sport horses like thoroughbreds and saddle horses such as Arabian. Horses are raised for racing, farm work, breeding stock, transportation and recreation. Horses used to have a larger importance in agriculture when they were the primary means of transportation and farm machinery but are still an important part of agriculture.

**Sheep**

There are currently about 280,000 sheep in Ontario – the most in any Canadian province. Sheep are bred for meat, wool and milk. A ewe generally has between one and three lambs per year and these are usually born in late winter or early spring. Like cattle, sheep are ruminants and have four stomachs and eat hay, grasses and grains.

### **Poultry**

Egg producing birds are called layers and are raised for the production of eggs. Fertilized eggs are incubated and hatch into chicks or poults. These chicks can be then raised for replacement layers or for meat. Examples of meat producing birds include chickens, turkeys, geese and ducks. A third type of poultry is fancy or show poultry which is bred for colour and shape. Over 175 breeds of chicken are classified as fancy breeds.

### **Rabbits**

Rabbits are bred for meat, pelts, wool and as pets. Common small breeds, often bred as pets, include Dutch, Mini Lop and Netherland Dwarf. Medium breeds include the English and French Angora, Californian and Rex breeds. Large breeds, usually bred for meat, include Chinchilla, Flemish and New Zealand.

### **Alternative Livestock**

Alternative livestock is a term referring to less traditional types of livestock such as bison, elk, emus and alpaca. These animals are raised as breeding stock, pack animals (alpaca and llama), for meat, wool and recreation.

### **Aquaculture**

Aquaculture refers to the farming of aquatic animals such as fish, molluscs, crustaceans and other aquatic plants. Products from this sector of the agribusiness industry include food, food additives, cosmetics and pharmaceuticals for consumers. Aquaculture is a growing industry in Canada and in 2000 generated \$700 million in revenues.



## **Activity:**

# Keep Moooving Safely

Compare your senses to that of a typical animal's and fill in your guesses below or on a separate sheet.

HUMAN		ANIMAL
_____	<b>VISION</b> (clear or blurry)	_____
_____	<b>VISION</b> (black and white or colour)	_____
_____	<b>VISION</b> (in degrees)	_____
_____	<b>SMELL</b> (which has the best)	_____
_____	<b>TOUCH</b> (which has the best)	_____
_____	<b>HEARING</b> (which has the best)	_____
_____	<b>TASTE</b> (which has the best)	_____

## Being an Animal

1. Break into groups of three. One person in each group is the helper and the others are the animals.
2. Cover two pairs of dark sunglasses with petroleum jelly. If you don't have sunglasses, you can use cellophane and cardboard. Put on the sunglasses to get an understanding of how an animal sees.
3. To better understand how animals hear, make four cones out of paper to fit over the "animal's" ears. Attach with tape, pins or string.
4. Make another cone to fit over the nose to mimic an animal's ability to smell.
5. Because an animal doesn't feel as well as a human, put a winter coat on to simulate their sense of touch.
6. Now, to simulate the 360 degree range of animal vision, have the animals in each group stand back to back and link arms. To increase a sense of black and white vision, dim the lights.

7. The third person in each group, the helper, should lead the “animal” around a course or through a doorway.
8. Change the positions so everyone gets a chance to be the animal and the helper. The two people making up the animal must say what they see and hear because they are back to back and may not know what their other half is experiencing. This represents the animal’s mind in action.

Debrief:

We take our senses for granted and often assume that everyone senses their surroundings in the same way. Animals, however, sense the world very differently from humans. After “being an animal” with limited vision, smell, hearing and sense of touch, you should have a better appreciation for animals and their behaviour.

## Activity:

# Animal Demonstration

### You'll need:

- ✓ A calm, trained animal.
- ✓ A leader or senior member to demonstrate moving an animal from one point to another.
- ✓ Knowledge of animal behaviour and animal handling techniques. (Refer to agriculture cards "Animal Handling" and "Animal Safety")

### What to do:

Have the animal handler demonstrate how to move and handle an animal. Show where the point of balance, the blind spot and flight zone are on the animal. Talk about whether the animal is a "fight" or "flight" animal and how you can tell. (Read the Animal Safety and Animal Handling agriculture cards for more information.)

After watching the demonstration, have you learned anything? Will your knowledge of animal handling change how you approach and move animals?

From the demonstration, list seven important factors to remember when working with an animal.

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_
7. \_\_\_\_\_



## **Activity:**

# “EGGSPERIMENTS”

### **“Sink or Swim”**

**You will need:** at least two uncooked eggs; salt; spoons; clear glass or cup; water

This activity can be done in groups by members or as a demonstration to the club.

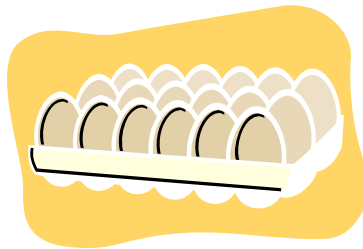
1. Fill two glasses with water
2. Stir  $\frac{1}{4}$  cup (50 mL) of salt into one of the glasses until it is completely dissolved.
3. Place an uncooked egg into each glass
4. Discuss what happens.

### **“Fresh Eggs”**

**You will need:** water, bowls, fresh and stale eggs. (A ‘stale’ egg is an egg that has been in the refrigerator for a few weeks or an egg which has been left un-refrigerated for a few days.)

1. Fill a fairly large bowl with water.
2. Place both the fresh and stale eggs in the bowl of water.
3. What happens and why?

Debrief: The stale egg will float because as eggs age, their air cells at the wide end of the egg become larger. This is a good test to determine how fresh your eggs are. Discuss why it is important to check expiry dates and to eat fresh foods.



## **“Egg of Steel”**

**You will need: eggshells, masking tape, scissors, books**

1. Wash and dry eggshell halves and wrap masking tape around the broken edges.
2. Cut the edges so the shells will sit flat.
3. Give four halves to each member or group.
4. Have members place the eggshells with the edges facing down.
5. Position the shells to support the four corners of a book.
6. Carefully place the book on top of the shells.
7. Watch carefully to see how many books you can pile before the eggs begin to crack.

Debrief: The eggshells are able to support a lot of weight because the weight of the books passes over the curved shape, down and over the entire shell. If you press on the egg around the middle, you will see that it cannot hold the same amount of pressure. Why is this a useful characteristic of eggs? How might this be important for laying hens?

*Thanks to the Ontario Egg Producers for permission to adapt these activities from their “Eggsperiments” publication.*

## Meeting #5 – Safety:

### Leader Preparation

In this meeting, members will learn about safety and accident prevention, both on and off the farm.

#### **Roll Call:**

What safety precautions do you take on and off the farm?

- Mention the different types of safety awareness necessary when agriculture is involved.
- There are more risks than just tractors and machinery: medicines, equipment, animals, food and deadly gases all pose a safety risk.

#### **Ag Cards:** (15 – 20 minutes)

Choose one or more agriculture cards from the Ag card section. Some suggestions are: “Safe Food from Farm to Table,” “Animal Safety” and “Farm Safety.”

#### **Promotion Cards:** (20 minutes)

Choose one promotion card that you can relate to the meeting topic of farm, animal and food safety.

#### **Activities:** (choose one or more)

##### 1. Chicken in the Kitchen (15 – 20 minutes)

This activity demonstrates the importance of keeping a clean work area in the kitchen and the dangers of cross contamination of food. You will need two sponges, water, a paint brush, bright coloured paint, a cucumber, a cutting board, a serrated knife, a cutting board and a light coloured plate.

##### 2. The Great Raisin Rescue (10 – 15 minutes)

In this activity, members will learn about the dangers of grain bins and proper rescue techniques. You will need a milk carton, raisins, a bowl, sugar or salt and scissors.

Debrief: Like anything, there are safety risks involved in agriculture – especially if we are not educated and aware.

## **Meeting #5**

# **SAFETY**

### **Discussion:**

How safe do you feel on your farm and around your home? What precautions do you take?

Do you always feel safe around animals?

### **Be Aware – Be Safe**

The first step to safety is awareness. Awareness means noticing your surroundings and potential hazards. Potential hazards can be eliminated once you notice them and anticipate what could happen. You can also arm yourself with information. Knowing about any risks involved in what you're doing, and more importantly how to prevent accidents, can help keep you safe.

### **Safety and Hazards**

There are safety hazards both on and off the farm. Farm safety involves being safe around animals, machinery, equipment, gases and medicines. Food safety happens both on the farm and in the home. Safety of food is ensured when precautions are taken during growing, harvesting, production and preparation. The consumer must also take steps to guarantee food safety.



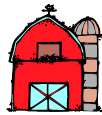
### **Farm Safety**

When you think of farm safety, you probably think of farm machinery and animal safety. There are, however, additional hazards and risks. If you have livestock and use veterinary medicines or pharmaceuticals, awareness about proper handling and storage is necessary. On the farm, there is also a risk of coming into contact with deadly gases, especially in silos.

## **Animal Safety**

Animals are our friends and often part of our livelihood. They can also be responsible for disabling injuries that cause pain and losses. Animal-related injuries include broken bones, crushed limbs, missed days of work and unnecessary medical expenses – even fatalities.

Precautions must be taken around animals, regardless of how tame or calm they may appear. Animal instincts often override other expectations of animal behaviour and as such an awareness of instinct can help prevent accident and injury. The key to preventing animal injuries is good judgment, understanding, training and experience. If you use your common sense and knowledge, you can stay safe and enjoy animals, whether as pets, recreation, exhibiting or meat.



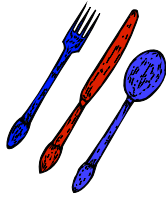
## **Silo and Manure Pit Safety**

There are many dangerous gases that you may come into contact with on the farm. Most of these are found in silos or manure storage areas. The risks posed from deadly manure gases include dizziness, loss of consciousness, suffocation and explosions. The four main gases produced from decomposing manure are hydrogen sulphide, methane, ammonia and carbon dioxide.

When working around silos, it is important to be aware and safe. The hazardous gas produced in silos is Nitrogen Dioxide (NO<sub>2</sub>). It is created through grain fermentation. Nitrogen dioxide is one of the most hazardous lung irritants. Under normal conditions in a properly constructed building with good ventilation, however, the risks are very low.

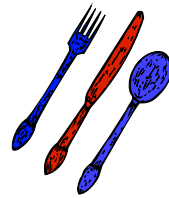
## **Animal Health**

In addition to being aware when handling animals to prevent injury, we must be aware of other risks such as diseases and proper handling of medicine. Veterinary pharmaceuticals should always be handled with care. In fact, it is now necessary to have taken a course or have permission to purchase certain livestock medicines. Farmers can take a course provided through the Livestock Medicines Education Program to be able to purchase certain medicines, as well as being able to use and handle livestock medicines safely and responsibly. Contact [www.ontariolivestockmed.com](http://www.ontariolivestockmed.com) for more information on the program.



## **ACTIVITY:**

### Chicken in the Kitchen



The purpose of this activity is to demonstrate the importance of keeping the kitchen clean. Cross contamination of food can lead to food poisoning and other complications. To reduce the risk of food poisoning, wash all cooking utensils and counters before and after preparing the meal. Use a mild bleach solution to clean the cutting boards. A healthy kitchen is a happy kitchen!

#### **What You'll Need...**

2 sponges cut into chicken leg shapes, water, paint brush, red or bright coloured poster paint (may choose to try food colouring instead), a cucumber, cutting board, serrated-edged knife, light coloured plate

#### **What to Do...**

1. Wet both sponges so they become damp. Set one aside to represent the cooked chicken.
2. Paint both sides of the other sponge with the red poster paint. The paint represents the juice found within the chicken that carries bacteria like salmonella.
3. Place the painted sponge on the cutting board and cut it in half using the serrated knife. Place the pieces on the plate.
4. Cut a slice of cucumber on the unwashed cutting board. What does it look like? What has happened?
5. Place the cooked chicken sponge onto the plate beside the raw chicken sponge. What happens?
6. Discuss your observations.

#### **Consider...**

Why should you wash the cutting board after cutting raw meat?

How many cutting boards do you have in your house? How many do you need?

What would you wash the board with to get rid of all the bacteria?

Should you use wood or plastic cutting boards?

## ACTIVITY:

### The Great Raisin Rescue!

This activity is a great way to demonstrate the dangers of grain bins and how to rescue someone from one if necessary.

You will need...

- milk carton (half litre size) – raisins – bowl – sugar or salt – scissors



Break into groups of two to four and follow these steps:

1. Cut the top off the milk carton.
2. Cut one whole in the centre of the bottom of the carton, about the size of a large pea.
3. Set the milk carton in a bowl.
4. Fill the carton  $\frac{3}{4}$  full of salt or sugar.
5. Spread five raisins in a star pattern across the surface of the salt/sugar. Make sure that one raisin is in the centre (directly above the whole in the bottom) and the remaining four are in the corners of the carton.
6. Lift the container over the bowl to see how an auger drains grain (the sugar/salt).
7. Retrieve the raisins by pouring the mixture into the bowl.
8. Once the raisins are sifted out, put the salt/sugar back into the carton and plug the hole with one finger.
9. Put the carton back into the bowl and place one raisin in the centre. This is the potential victim. You are now ready to perform the great raisin rescue.
10. Lift up the carton and stop the flow as soon as the raisin is covered in the salt/sugar. This is equivalent to shutting off the auger.
11. Begin the rescue procedure: cut a hole in each side of the carton. These holes should be about the same size as the hole in the bottom.
12. After the holes are cut, the victim should be partially exposed. Cut a strip of paper about 3 centimetres wide. Make a circle out of the strip big enough to fit around your thumb. Tape the circle that size and cut away the excess. This represents a 45 gallon drum that you place around the victim (raisin), embedding it in the salt/sugar.
13. Now try to dig out the raisin without the shifting salt/sugar covering it up as fast as you dig. Once the raisin is exposed, put the safety harness around it and lift it out.

a) Holes should be cut into the sides for two reasons:

- i. One hole will cause the raisin to flow in that direction
- ii. It will prevent collapse of the structure.

- b) Be careful as to what height the holes are cut from the bottom of the bin.
  - i. Too low and the grain will run out only to plug up the hole again.
  - ii. Too high and not enough grain will empty out to expose the victim.



### The Real Rescue

Rescuing raisins can be fun, but rescuing people from grain bins is a different matter. Here's what to do in case of a real rescue:

1. Turn off the power to the auger and lock or wire it shut so it cannot be accidentally turned on.
2. Call for help.
3. Remove grain from the bin as quickly and simply as possible.
4. Don't attempt to dig a victim free because the grain will flow back.
5. If the victim is completely covered, cut a hole in the bin one to two metres above the ground. You can use an abrasive saw, air chisel or cutting torch. The corner of a tractor loader bucket could also be used to ram holes in the bin wall.
6. If the victim is partially covered, lower a rescue squad member into the bin to attach a body harness or lifeline. This line is used to stabilize the victim and prevent further sinking.
7. Calm the victim.
8. Construct a shield around the victim using a steel drum with ends removed, a sheet of metal or pieces of plywood.
9. Free the victim by scooping grain out from the inside of the shielded area.
10. Use a board or sheet of plywood as a work platform so you won't sink into the grain.





## Meeting # 6 – Agriculture Myths: Leader Preparation

In this meeting, members will learn about misconceptions and myths about agriculture and how to inform the public about the facts.

### **Agriculture Myths:** (10 – 15 minutes)

Roll Call: Name one myth about agriculture that you have heard. How would you correct this myth?

Some suggestions: cow tipping, cutting down rainforests for McDonald's cattle herds, animals only sleep standing up, when cows laugh milk comes out of their nose, etc.

Discuss different myths members may have heard about agriculture. How do they respond when they hear these misconceptions? Do they try to correct the information?

### **Ag Cards:** (10 – 20 minutes)

Choose one or more agriculture cards from the Ag Card section to compliment the meeting topic. Some suggestions for the meeting are: "Food Processing" and "Animal Handling."

### **Promotion Cards:** (20 minutes)

Choose a promotion card from the promotion card section and relate it to educating the public about agriculture.

### **Activities** (choose one or more)

#### 1. How Can I Help Promote Agriculture? (15 – 20 minutes)

Members should use the script provided to role play different scenarios. Discuss how to handle tough questions while promoting agriculture.

#### 2. Fact vs. Opinion (10 – 15 minutes)

Discuss why it was hard to separate fact from opinion and how they are different.

Debrief: Be an ambassador for agriculture! Understanding is essential to awareness and acceptance of agricultural practices. It's often hard to distinguish between facts and opinions and this often results in myths about agriculture.

## Meeting #6:

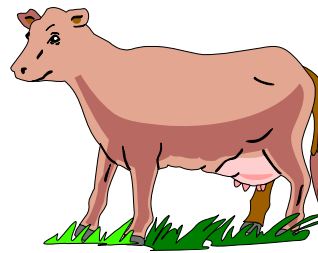
# Myths about Agriculture

**Roll Call:** Name one myth about agriculture that you have heard. How would you correct this myth?

Why is there so much misconception about agriculture?

### Myths

A common myth about agriculture is that brown cows give chocolate milk.



A response to this belief to correct public perception might be: “No, actually the colour of the cow tells us the breed of the cow and not what colour the milk is. The milk actually has nothing to do with the colour or markings of the cow. For more information about breeds or dairy cattle in general, visit [www.hoards.com](http://www.hoards.com) or stop by a local fair to see dairy cattle for yourself.”

### Myth:

By eating less meat, North Americans could improve the environment and free land and resources for the production of food crops. Instead of using land for animals, we could grow crops that would feed the hungry in other countries.

### Fact:

About half of agricultural land is not suited to growing crops. Ruminant animals, such as cattle and sheep, make use of this land by grazing on it. There is more than enough crop land in North America to grow both feed grains and food crops.

Can you think of any other Ag myths and how you might clear them up?

## ACTIVITY:

### How Can I Help Promote Agriculture?

This activity is designed to teach members how to help with agricultural issues. Ask members to interview each other using the script provided. Ask the audience (the rest of the club) to analyze the interview and explain what was done right and what could have been improved.

#### Appropriate Answer Script

**Q** – Do you own these cows?

**A** – I am the beef club leader; these heifers belong to my members. (Smile and be friendly)



**Q** – What do you do as a beef leader?

**A** – I work with a group of youth aged 10 to 21 and help them learn the importance of animal health and welfare. The members are required to complete an achievement program which is usually a beef show at the local fair. I help the members to learn about proper animal health, nutrition, housing and showmanship techniques. (Be informative and to the point)

**Q** – What do the kids do with the sticks?

**A** – The members use these show sticks to help keep the animal calm while in the show ring. It is also used to help place the feel under the animal so it is presented at its best. The members use the stick to gently rub the belly of the animal, calming it in an unfamiliar situation, and sometimes even putting it to sleep. (Offer to show the interviewer how it is done)

**Q** – Why do you teach these young kids to kill their calves?

**A** - We encourage the members to learn how to care for the animals so they can start their own business. The main market for beef cattle is meat for human consumption. Beef cattle are also used to make other products that you use everyday. They provide leather for shoes, purses, luggage etc. Other by-products are found in crayons and the

film in your camera. Farming is a business and in order to survive, you have to be able to ship the cattle to the processing plant. (Remember to use language that everyone can understand.)

**Q** – How can you eat meat? I couldn't eat anything that had a face!

**A** – I do eat the cattle that I raise on my farm. I know what was fed to them, how they were treated and who processed the meat. If I don't eat the product that I am trying to see, how can I promote my own product? You may not eat meat but you probably use some of the things that have cattle by-products in them like shoes, leather, car polish, sports equipments and medicine. For a more complete list, you can go to the local cattlemen's association and find more information on cattle by-products.

(Be friendly and shake hands when the interview is over. Thank the interviewer for their time)

### **Inappropriate Answer Script**

**Q** – Do you own these cows?

**A** – Nope, I'm just the club leader. (Look away and cross your arms)

**Q** – What do you do as a club leader?

**A** - I teach these members how to show a heifer. I make sure they win in the show ring. After all, winning is a big part of life. (Act distracted and don't focus on the questions. Focus on things going on around you.)

**Q** – What do the kids do with the sticks?

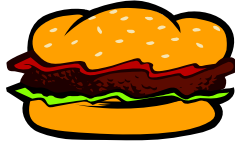
**A** – Show sticks help the kids place the feet in the right spot. (Act as if that was a dumb question.)

**Q** – Why do you teach these young kids to kill their calves?

**A** – The whole idea of raising beef cattle is for meat! I'm sure you enjoy eating steak – well where do you think those steaks come from? From the farmers! You think that farming cattle is like Old MacDonald's Farm, right? Well, it's not. It's a business and it's very competitive so you have to be the best of the best in order to survive in this world.

**Q** – How can you eat meat? I couldn't eat anything that had a face.

**A** – I ship up to 500 cattle a year. I don't remember that many faces. As a businessperson, I don't give names to the cattle because they aren't family pets. They are items to sell and make money. (Be graphic to demonstrate that you don't care about the interviewer and the responses of the public.)



**Activity Variation:**

Have the members analyse each interview and write down what was done wrong. Encourage members to come up with an example of an excellent ambassador for agriculture.

Come up with different responses to the questions asked in the interview scenario. Assign a role to each member and ask them to role-play in front of the club. Some possible roles are:

- 1) Angry interviewer (ask questions to spark an argument)
- 2) Sad interviewer (ask questions to elicit emotion)
- 3) Defensive interviewer (use body language to spark a defensive argument and argue the opposite of the interviewee's responses)
- 4) Excited interviewer (gesture wildly and talk quickly)
- 5) Defensive interviewee (use bad body language like crossed arms and back to interviewer; don't make eye contact and argue about the questions you are asked)
- 6) Calm and collected interviewee (use proper body language and answer in a calm manner without being defensive)
- 7) Emotional interviewee (change your emotions with every sentence and cry at one point, eventually running away from the interviewer)
- 8) Wild interviewee (gesture wildly, make accusations at other groups, act offensively)

Have you learned anything? How should you answer questions about agriculture if approached?

## Activity:

# Fact vs. Opinion

In this activity, members will discuss what makes facts different from opinions and how this relates to myths about agriculture.

### Fact

A fact is a statement that can be proven to be true or an event that happened.

### Opinion

An opinion is a personal belief on what one thinks is true but may not have certain knowledge or proof of being true.

1. Read the statements below.
2. Beside each statement, write F for fact and O for opinion.
3. If you're not sure if something is fact or opinion, put a question mark beside it to be discussed later.

- |  |       |
|--|-------|
| a) Holsteins are the best breed of dairy cow.          | _____ |
| b) There are over 11,000,000 people living in Ontario. | _____ |
| c) Eating meat is good for you.                        | _____ |
| d) Blue is the most calming colour.                    | _____ |
| e) Teenagers are irresponsible.                        | _____ |
| f) Laura's favourite food is pizza.                    | _____ |
| g) All youth should be involved in the 4-H program.    | _____ |
| h) The sun causes cancer.                              | _____ |

4. Did everyone agree on which statements were fact and which were opinions?
5. If you put a question mark beside any of the statements, discuss with the club and try to put it into one of the two categories.

Is it hard to separate fact from opinion?

*Adapted from "From Both Sides", Ontario Agri-Food Education Inc.*

## Activity:

# Careers in Agriculture

In this activity, members will brainstorm and learn about the many careers in agriculture. A great idea for this activity is to invite a guest speaker who works in the agriculture industry.

**You will need:** chart paper, pens and markers

### Brainstorming Time!

In groups of three or four, use markers and chart paper to brainstorm as many different careers in agriculture you can think of. Use a web, venn diagram, chart or headings to divide the careers into categories.

After each group has compiled their lists, share with the group. It might help to keep track of all the ideas by writing them on one large piece of paper.

*Here are some more careers to consider (if they're not already on the list):*

- DHI (
- dairy herd improvement)
- Accounting
- Processing plants
- Working in a dairy
- Milk truck driver
- Journalism
- Advertising
- 4-H
- Agriculture educator
- Marketing
- Bank Loans
- Veterinarian
- Vet Technician
- Farm equipment retail or repairs
- Feed Sales
- Food Inspection
- Professor
- A.I. technician
- Human resources
- Trucking
- Cash cropping
- Livestock farming
- Government, e.g. OMAF
- Nutrition
- Auctioneer
- Butcher
- Sales
- Feedlot operator
- Non-profit sector
- Electrician

Select three or four interesting careers and list a few skills that would be required for each. What kind of training and education is required? Do you or someone in your club have these skills?

If you are especially interested in a particular career, find out if there is someone in your area who you could talk with about that job.

# Ontario Agriculture Card:

## Agricultural Issues

### **Discussion Topics:**

What issues do you think affect public perception of agriculture?

How have these issues affected you or someone you know?

Do you think the agriculture industry is being threatened by any of these issues?

Which issue do you think is the most important?

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Over time, agriculture has changed dramatically. Advances in technology and agricultural theory have meant that consumer costs have been reduced and productivity has been increased. Concerns have been raised over a number of issues, including the following:

### **Issue:**

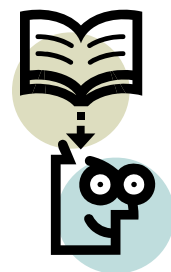
An issue is a matter of importance, a controversial point or important topic for discussion.

### **Economic Issues:**

- cost of land, machinery and rising cost of quota for farmers
- trade and the international market (governed by both governments and trade organizations like the World Trade Organization and the North American Free Trade Agreement)
- consumer market based on consumer tastes and opinions
- taxes

### **Political Issues:**

- bylaws affecting land, zoning and farms
- governments decisions affect taxes
- pressure groups
- international trade decisions influenced by governments
- loss of farmland to development
- regulation of urban sprawl
- subsidization of the industry
- political influence of farmers has decreased as numbers



### **Environmental Issues:**

- machinery emissions contributing to greenhouse gases
- methane on farms and global warming
- water safety
- waste disposal
- pesticide use
- land usage and increased scale of production

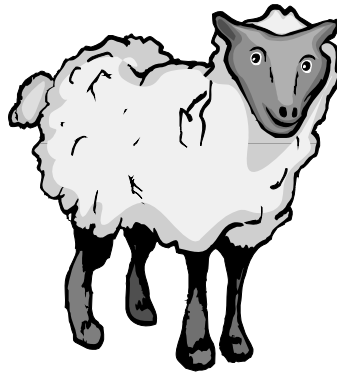


**Health Issues:**

- genetically modified food
- organic food
- water and air quality
- food contamination
- medicine use in animals – veterinary pharmaceuticals
- increasing anti-microbial resistance
- food irradiation

**Ethical Issues:**

- animal welfare
- reproductive technology (eg. ET, invitro)
- cloning
- genetic modification of plants and animals
- patenting and licensing of life forms
- genetic diversity

***Digging Deeper for Senior Members:***

Talk to someone in your area who is directly affected by one of the above issues. What are their opinions on this issue and how are they affected? Research the other side of the issue and present the two sides at the next meeting.

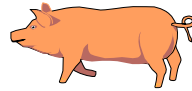
Find newspaper or magazine articles about current issues affecting the agriculture and food industry. What side do they take?

# Ontario Agriculture Card

## Food Processing

### Four Types of Farming:

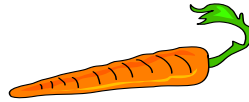
1. Livestock: cattle, sheep, swine, poultry, etc.



2. Grains and oilseeds: wheat, soybeans, forage crops, corn, barley, oats, tobacco, canola etc.



3. Fruits and vegetables: fresh produce, carrots, broccoli, tomatoes, apples, pears, peaches, grapes etc.



4. Mixed farming: combines several different types of farming or even another business such as seed cleaning or food processing.

### What is processed food?

Processed food is a natural resource that has been altered in some way by machine or humans. An example is carrots being washed, cleaned and cut, parboiled and placed in cans, then sealed and steamed.

### Processed Food:

Ontario has over 1200 food and beverage processors. Processed food includes:

- baby food
- ketchup
- meat pies
- non-dairy whitener

Processing companies in Ontario generate more than \$22 billion each year in sales. They provide for 11.4 million consumers in Canada and 250 million in the United States. Ontario has high standards for food quality. The Canadian Food Inspection Agency tests, inspects and certifies processed food as well as enforcing label regulations at the retail level.

## **The Ontario Food Terminal**

The Ontario Food Terminal is located in Toronto and has over 6000 different buyers.

- The food terminal has over 120 different types of produce sold – apples, pears, potatoes, lettuce, peaches and Chinese vegetables
- Buyers travel from all across Ontario
- Many of the buyers operate their own fruit and vegetable stores

To become a buyer you must register with the Ontario Food Terminal Board by establishing your role as a produce wholesaler.

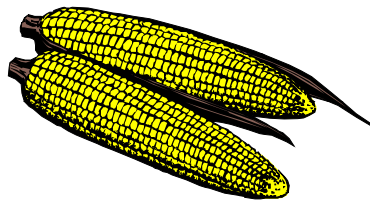
## **What kinds of produce and crops are grown in Ontario?**

- ◆ grains such as wheat, barley and oats
- ◆ corn
- ◆ soybeans
- ◆ canola
- ◆ fruits such as peaches and grapes
- ◆ tobacco and hemp
- ◆ vegetables
- ◆ berries
- ◆ alfalfa, clover, ryegrass
- ◆ maple syrup and honey

Can you think of any other crops that are grown in Ontario?

### **Did you know...?**

Canada's corn crop alone generates enough oxygen to supply every Canadian for a year.



# Ontario Agriculture Card

## Organic Farming

### Discussion Questions:

Do you, or someone you know farm organically? If so, how does it differ from traditional farming?

Does your family purchase organic foods? Why or why not?

### What is organic farming?

Organic farming is a method of crop and livestock production that involves choosing not to use certain pesticides, fertilizers, genetically modified organisms, antibiotics, and growth hormones.

It also attempts to optimize the productivity and quality of soil organisms, plants, livestock and people within the agriculture ecosystem. The goals of organic farming are to sustain the environment, promote good well being of soil, and to have a productive farm.



### Why do people farm organically?

The reason that some farmers decide to farm organically is that there is a market for chemical-free food. Two main issues fueling consumer demands are health and the environment. Some people believe that it is healthier to eat food that is organically grown as opposed to food that is grown using pesticides and herbicides. Consumers are also concerned about the environment and the effects of chemical usage.

### Are organically produced foods healthier?

All fresh food approved for sale in Canada is healthy and safe. Foods produced by any system must satisfy the same government standards and safety standards. There is no evidence that food produced by any particular production method is healthier. "Organic" is not meant to be a food safety or nutrition claim – it only indicates how it was produced.

### **Organic Farming Advantages:**

- air and water pollution are reduced because of lack of chemical usage
- improvement in soil health
- more variety of wildlife and animals
- more mixture and diversity of plant species
- no additives in food
- no genetically modified organisms (GMOs)
- fewer pesticides
- fewer drugs used on animals



*Did you know that crop rotation means changing which crops are planted on the same piece of land? This helps improve the quality of soil while controlling pests and diseases.*

### **Organic Farming Disadvantages:**

- organic crop yields are on average, about 20% lower than conventional yields
- animal and plant waste used in manures still could be contaminated with chemicals
- often a decline in certain plant species
- addition of a large amount of untreated plant and animal waste can lead to an increased risk of spread of disease
- nutritional value of both conventional and organic foods is likely the same
- more studies must be done before the long term effects of organic farming can be concluded

### **Organic Farming Techniques:**

#### Soil Preservation:

Organic farmers rely on compost, which is fertilizer formed from processing yard and table waste. Compost, unlike many conventional fertilizers, does not harm the microorganisms needed for a healthy soil. Fertilizers replace the nutrients removed by crops as well as any nutrients naturally lacking from the soil. Soil erosion is also a concern in organic farming. Many organic farmers plant grasses as cover crops to prevent erosion.

#### Pest Control:

Organic farmers do not use synthetic, chemical pesticides. Instead, pesticides are made from plants, animals or minerals. Other methods of pest control include using insects such as ladybugs or praying mantids.

# Ontario Agriculture Card:

## Animal Handling

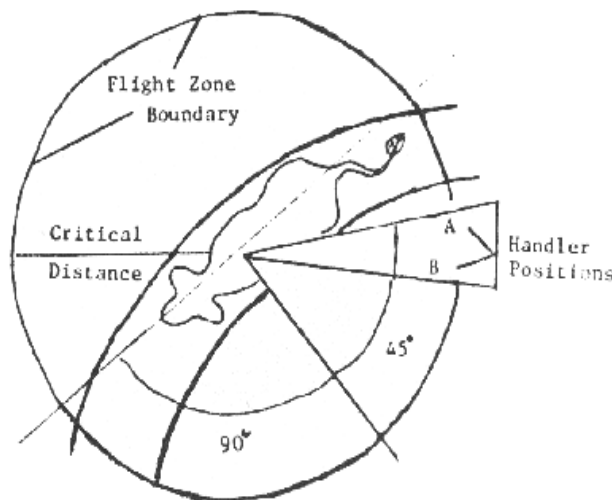
**Discussion:** Name one thing you have to be aware of when handling livestock.

### Animal Behaviour

If you have ever worked with livestock, you will know that each animal has its own personality. In addition to obvious physical differences, animals' senses are also very different from our own. Having a good appreciation and respect for these differences is the first step in developing good animal handling techniques. Any sudden exposure to noise and crowds, especially in a barn, may make the animals nervous and difficult to handle. For safety reasons, and especially for children, you should limit access to livestock which are high strung or nervous.

### Other Factors:

An animal's behaviour is affected by fatigue and weather just like people. Don't expect a tired, hot animal to be as cooperative as a rested one. Many factors influence animal behaviour.



### Flight Zone

Flight zone is an important concept in handling livestock. It refers to the shortest distance between you and an animal before it will move away. Penned animals will have little or no flight distance. With range and loose housing, flight zone is larger. The best position for a handler to work is on the edge of the flight zone. You can step into the flight zone to make the animal move

and back up to make it stop moving. This allows you to move animals easily while they remain calm. Working on the edge of the flight zone makes it easier to move in and out of it.

### **Animal Vision:**

Animals have different vision and blind areas than humans. Cattle, for instance, see mostly in black and white and have a blind area directly behind them, as seen below. Blind spots should be kept in mind when approaching animals. You should always make sure an animal knows where you are, so if you must move through its blind area, keep a hand on the animal or talk to it. Depth perception is another difference in animal vision. Cattle have very poor depth perception, meaning that a puddle might look as deep as an ocean to them.



### **Point of Balance:**

When you stand behind an animal, it tends to move forward. The imaginary line, usually around the shoulder area, where this occurs is called the point of balance. If you stand behind the point of balance, the animal should move forward. Understanding point of balance, blind spots and flight zone can help you to move animals easily and calmly. Minimizing stress for the animal is better for their health and well-being. Animals can remember stressful events, people and locations that caused them fear or pain.

### **Herd Instinct:**

An understanding of the "herd" instinct is important in understanding animal behaviour. Cattle follow a leader and so are motivated to follow each other. Each animal should be able to see others ahead of it when you are handling them. Give an animal time to decide if its surroundings are safe before urging it to proceed.

# Ontario Agricultural Card:

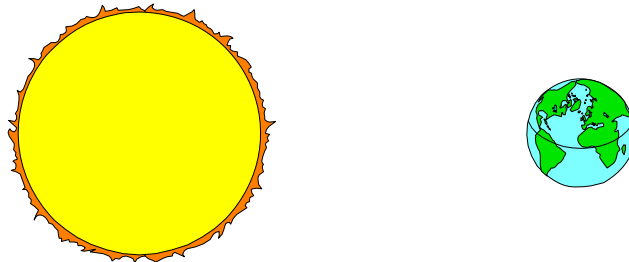
## Global Warming

**Discussion:** What do you think causes global warming? How can it be reduced?

### Global Warming:

Over the last couple of decades, the term "global warming" has been used to describe the planetary warming caused by human emissions of greenhouse gases into the atmosphere.

Global warming refers to the increase in the temperature of Earth's oceans, landmasses and atmosphere. Throughout the planet's history, the temperature has continually changed – this is called climate change. In recent years, the term "global warming" has been given to this planetary warming when greenhouse gases cause it. The greenhouse effect is the result of gases like water vapor, carbon dioxide and methane gas – greenhouse gases. These gases trap heat inside our atmosphere, increasing the average temperature much like the glass in a greenhouse. The Earth is also protected by the ozone layer, which helps to block the sun's ultraviolet rays. There are certain chemicals and gases that contribute to the depletion of this protective ozone layer.



### Concerns

The greenhouse effect has caused concern because of the continual rise in the Earth's temperature. This increase not only results in a warmer climate, but other environmental changes. For example, as temperatures rise, glaciers and ice caps melt, which increases water levels. Even though this seems like a small change, it can have drastic effects on ecosystems and animals. Industrial development and agriculture have contributed to the production of greenhouse gases and therefore global warming.



## **Methane Gas**

Methane is the second largest contributor to the depletion of the ozone layer and to the greenhouse effect. In 1999, agriculture was accountable for 28% of methane emissions in the United States. Methane is produced not only from livestock, but also from other areas of agriculture. Despite the impact of agriculture on greenhouse gases, it is important to remember that carbon dioxide accounts for a whopping 82% of human-made greenhouse emissions.

### Etheric Fermentation

Etheric fermentation is the process in which microbes in the animals' digestive system break down the animal's food. Cattle, buffalo, sheep and goats have the highest amount of methane emissions due to their rumen. Since 1995, however, this type of methane emission has been declining because of a decline in dairy and beef populations.

### Manure Management

Methane is produced when animal waste is broken down. The amount of methane produced often depends on the type of waste. Liquid manure produces a large quantity of methane, while solid manure produces little to no methane. This is partially because liquid manure is stored in tanks and not exposed to open air. The higher temperature and moisture increases the methane gas production.

### Rice Cultivation

Most rice is grown in flooded fields. The flooding of the fields causes the organic matter in the soil to decompose. This produces methane gas through the rice plants. As the world population increases, the food supply must increase. As such, more rice production means more methane gas in the atmosphere.

### Agricultural Residue Burning

When crops are burned by farmers, several different gases are produced. One of these gases is methane, and some of the other gases released also contribute to ozone depletion.

## **Digging Deeper for Senior Members**

Think about ways to cut down on greenhouse gases and emissions. What small changes could be made that would drastically reduce the productions of these gases?

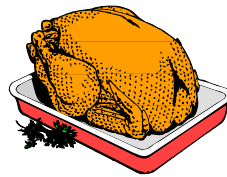
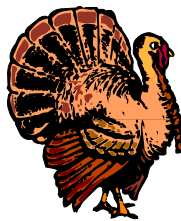
# Ontario Agriculture Card:

## Safe Food - From Farm to Table

**Discussion:** What is one way to keep your kitchen free from bacteria?

### How to Keep Food Safe:

Food safety begins at the farm but ends with you! There are five places where food can be at risk. They are:



1. **On the farm:** Animals have clean water, nutritious food and a healthy environment. Farm chemicals are applied in a responsible and safe manner. The government approves and monitors the use of farm chemicals and livestock medications.
2. **Imports:** The government inspects imported food. Ingredient labels are checked by government officials. If a shipment does not meet Canada's standards, it is either destroyed or sent back.
3. **Processing plants:** Staff are trained in health and safety issues. The plants are clean and sanitized. Quality ingredients are purchased. Government officials inspect processing plants to ensure food quality and safety.
4. **Retail:** Grocers and restaurant operators purchase high quality products. Food is properly stored. Stores are kept clean and sanitized. The government checks packaging and ingredient listings. Government officials inspect grocery stores and restaurants.

## 5. THE CONSUMER – Now it's up to you!

### How to Keep Food Safe in Your Home:

There are four steps in reducing the risk of food contamination:

#### **CLEAN      SEPERATE      COOK      CHILL**

- ★ **CLEAN:** Wash your hands, utensils and all cutting surfaces with hot soapy water before, during and after preparing foods. Sanitize countertops with a mild bleach and water solution. Wash all produce thoroughly before cooking or eating.
- ★ **SEPARATE:** Keep raw meats and poultry away from other foods during storage and preparation. Keep separate cutting boards for raw meats and vegetables. Always keep foods covered.
- ★ **COOK:** Cook food thoroughly! Cooking times and temperatures vary for different meats and poultry. Prepare foods quickly and serve immediately so foods don't remain at room temperature to let bacteria grow.
- ★ **CHILL:** Refrigerate or freeze perishables, prepared food and leftovers within two hours. Make sure the refrigerator is set at a temperature of 4 ° C (40° F) and keep the freezer at -18° C (0°F).

### Want more information on food safety?

Visit [www.canfightbac.org](http://www.canfightbac.org) for more information.

#### **Food Fact:**

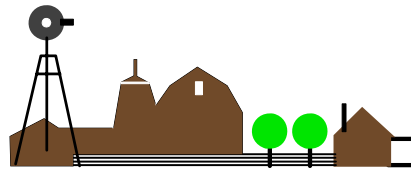
Not all bacteria is bad! You probably have good bacteria in your kitchen too. Wonder how?  
Good bacteria are found in cheese and yogurt.

# Ontario Agriculture Card:

## Farm Machinery Safety

**Discussion:** If you have ever used farm machinery before, what safety precautions did you take?

- \* Take responsibility for yourself. Farm machinery cannot think for itself!
- \* Know how the farm machinery works. Learn about the machinery before you use it.
- \* Show respect for the power of the machinery.
- \* Watch out for others – don't be responsible for an accident.
- \* Dress for work and wear protective clothing as needed. Avoid anything that could be caught in the moving parts of the machinery.
- \* Make sure the equipment is in good condition. Faulty parts can cause an accident.
- \* Make sure that you are in good condition and not tired, upset or sick.



### Rural driving:

Operating farm machinery can be hazardous, especially when driving on public roads. One in 14 farm related fatalities are caused by collisions with vehicles. Most drivers underestimate the speed and size of tractors and farm machinery, resulting in collisions. When driving on public roads, make sure that all signals and lights can be seen. Routinely check lights for proper functioning. Don't forget that you are also a vehicle and must obey the rules of the road. Drivers in rural areas should be especially aware of their surroundings and keep alert for tractors, combines, trucks, wagons etc. Speed and road conditions are the biggest factors in the severity of an accident. Put safety first, whether as a rural driver or a farm machinery operator.

### Symbols and functions:

A key factor in staying safe when operating farm machinery is awareness of the machinery itself. Knowing how the machine functions and what the symbols mean can help the operator

deal with any problems or situations. Always read the operator's manual to ensure understanding of lights and functions in the equipment.



### **Slow moving vehicle:**

The slow moving vehicle (SMV) sign indicates that the vehicle moves more slowly than regular traffic, and other drivers should take extra caution. SMV signs must be affixed to vehicles (and towed implements, if applicable) travelling below 40 km/h. This does not apply to bicycles, mopeds or towed vehicles. The improper use of these signs can result in fines. You've probably seen SMV signs used in place of reflectors at the end of driveways. SMV signs should be used only to indicate a slow moving vehicle. Can you think of any other incorrect places where you have seen SMV signs?

The familiar triangle shape of the slow moving vehicle sign must be mounted on the vehicle correctly. The tip of the triangle points upward with the base perpendicular to the direction of travel. The sign itself should be mounted securely in the middle of the rear of the tractor and any loads it is towing.

***If you see a slow moving vehicle sign, slow down and use extra caution!***

### **More Safety Tips:**

**ROPS** – a ROPS is a rollover protection structure. Using a ROPS and wearing a seatbelt can greatly reduce the risk of injury.

**No Riders!** – farm machinery is designed to carry only one person. This means only the driver should be riding the vehicle. Reduce the risk of accidents by maintaining a no rider policy.

**Brakes** – the brakes on the farm machinery should be locked together for even application of force.

**Power Lines** – make sure that all equipment is below power lines to prevent electrocution.

**Lights** – check lights and signals daily for proper functioning. Be seen and be safe.

*Thanks to the Canadian Federation of Agriculture's Farm Safety Fact Sheets for information.*

# Ontario Agriculture Card:

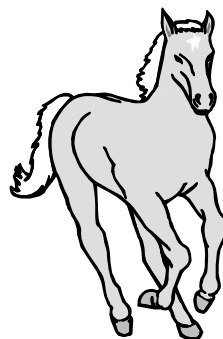
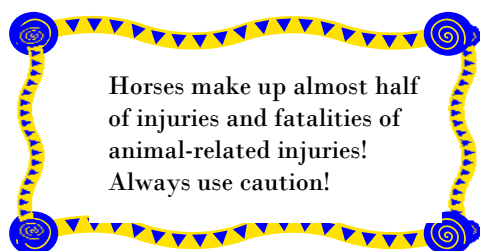
## Animal Safety

**Discussion:** What precautions do you take when handling animals?

### Animal Safety

Even if you handle livestock every day, precautions need to be continually taken. Being safe around animals means being aware. You must constantly keep an eye on the livestock and your surroundings. Never turn your back on the animals you are working with. Sometimes the more comfortable you are with animals, the more at risk you can be. It's easy to forget obvious safety factors. Here are some important things to remember that are often overlooked.

- ➡ Always have a clear escape route, especially if you are working in an enclosed area.
- ➡ Never get trapped between livestock and a wall or barrier.
- ➡ Never come between a mother and her young, especially a newborn. Mothers can be very protective and will become aggressive if they feel their young are being threatened.
- ➡ Try to work beyond the kicking range of larger animals.
- ➡ Don't sneak up on animals – let them know where you are by speaking softly or placing a hand on their back.



Remember to treat each animal with respect.  
They will be more likely to treat you with respect if you do.

## Instincts:

Many of the risks involved in animal handling arise from basic animal instincts. One of the major survival instincts animals have is “fight or flight.” When it feels threatened, an animal will either stand and defend itself (fight) or run away (flight). Fight or flight is the response that causes the heart rate to increase, breathing to become faster and hormones to start pumping. Animals are considered “flight” animals, while others tend to be “fight” animals. Horses and cattle, for example, are by nature flight animals and will run away if they feel scared or threatened.

## Minimize the risks:

Proper maintenance of animal handling facilities and equipment is another factor to consider when discussing animal safety. The topic of equipment includes such basics as clothing and footwear. You would not wear sandals the first time you approached your new 4-H beef heifer, so why should it be any different the fifth or sixth time? No matter how calm or trained an animal may be, it is still an animal and therefore unpredictable. Wearing safe footwear and clothing can help minimize risks. Ensuring that walkways are non-slip and that areas are hazard-free are simple ways to reduce the chances of injury.

**Safety Tip:** *If you handle animals, learn how to tie a quick-release knot. It could save the animal's life – or yours.*

## Health Risks:

For the safety of both the handler and the animals, it is important to have animals tested and vaccinated regularly for diseases and infections. You should also be familiar with symptoms of common diseases in order to quickly recognize and treat them. Some diseases are called **zoonotic**, meaning that they can be transferred from animals to humans. An example of a zoonotic disease is rabies (also called hydrophobia). Luckily, because of good management practices and rigorous health standards, it is much more common to have your foot stepped on than to catch a disease from a farm animal.

*Above all, remember that with a little precaution and common sense, you can safely enjoy, exhibit, train, breed and work with animals.*

## **Agriculture Card:**

### **Animal Welfare and Rights**

**Discussion:** In general, how well do you feel that livestock are treated?

#### **Animal Welfare and Animal Rights:**

You may have heard the terms “animal rights” and “animal welfare” used in relation to the treatment of animals. What you may not know is that these two terms mean something rather different, although both views support the humane and ethical treatment of animals.

#### **What is Animal Welfare?**

Although the definition of animal welfare varies, the general view is that humans have a responsibility to treat animals humanely. Animal welfare means the proper treatment of animals and their right to food, water, air and shelter. People can use animals for food and other products but must treat them properly.

#### **What are Animal Rights?**

Animal rights means believing that animals have rights similar or equal to humans. Since animals have the capacity to feel pain, humans should not cause them any suffering. This means that animals should not be killed or used for human benefit (since they can feel pain) unless in extreme situations like self-defence.

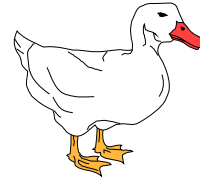
#### **Animal Protection:**

The Criminal Code of Canada makes cruelty to animals a crime and punishable by law. In addition, the Canadian Federation of Humane Societies (CFHS) with help from the federal Ministry of Agriculture coordinates the approval of codes of practice for animals. The CFHS not only approves codes but also reviews them to make sure they are current. Committees made up of veterinarians, animal scientists, government members, animal welfare groups, farm groups and other individuals approve the animal protection codes. Adherence to the codes is voluntary – in other words, these codes contain recommendations, not laws.



There are Recommended Codes of Practice for the following animals:

- sheep
- poultry – including chickens and turkeys
- veal calves
- pigs
- dairy cattle
- beef cattle
- animals raised for fur – mink and fox
- farmed deer and elk
- horses
- goats
- livestock transport
- bison



Each Code outlines how to meet the basic needs of animals. They also contain standards for shelter and housing, feed and water, health care, breeding, animal identification, handling and supervision, transportation, sales yard and processing procedures and emergency procedures.

The basic principles for raising and handling livestock, according to the codes, are:

- adequate air, water and feed
- safe housing and sufficient space
- appropriate complexity of environment (i.e. preventing deprivation or fear)
- regular supervision and effective health care
- sensible handling

*For more information, see the OFAC brochure on the Recommended Codes of Practice.  
Contact the Ontario Farm Animal Council (OFAC) at [ofac@idirect.com](mailto:ofac@idirect.com) or [ofac.org](http://ofac.org).*



## Agriculture Card: Nutrition

**Discussion:** How many servings of farm-related products do you need every day to stay healthy?

Maybe more than you think! When you stop to think about it, all of the foods in the four food groups originate on the farm. So in order to eat a nutritionally sound diet, you need to eat agricultural products.

### Canada's Food Guide

Canada's Food guide recommends eating the following number of servings from each food group each day to stay healthy:

Grain Products:	<b>5-12</b>
Fruits and Vegetables:	<b>5-10</b>
Milk Products:	<b>3-4</b>
Meat and Alternatives:	<b>2-3</b>



Just try to find a food from one of these groups that doesn't originate on the farm!

**Grain Products:** this group includes cereals, pastas and breads. All of these are made from grains. These grains start as crops that must be planted, cultivated and harvested.

**Dairy Products:** every food in this food group is made from milk or milk products. Whether this milk came from a dairy cow, goat or sheep, it still originated on a farm.

**Meats and Alternatives:** As the name of this food group implies, most of these foods are meat products and therefore came from a farm (beef, swine, poultry, fish, sheep etc). The meat alternatives in this group include dried beans and lentils, both of which are grown on a farm.



**Fruits and Vegetables:** All vegetables and fruits are grown, whether on a tree, vine, plant or underground. Even if they grow in the wild, someone must still look after the plant and harvest the fruit: in other words, farm.

### Servings

Different people need different amounts of food. The factors that influence how many servings each person should eat every day include:

- ⇒ age
- ⇒ body size
- ⇒ activity level
- ⇒ gender
- ⇒ pregnant or breast-feeding



Each food group has a range of recommended servings so as to accommodate the above differences. For example, a growing teenager should aim toward the higher serving amounts in the categories (say, 8-10 instead of 5 servings of fruits and veggies) while a young child or elderly person should lean toward the smaller serving numbers.

Health Canada has some additional suggestions when choosing food servings:

**Grains:** try to choose whole or enriched grain products

**Fruits and Veggies:** try to choose dark green or orange fruits and vegetables

**Dairy:** choose lower-fat milk products if possible.

**Meat:** choose lean meats, poultry and fish as well as dried peas, beans and lentils.

### Meanwhile, back on the farm...

In order to maintain the nutritional standard we've grown accustomed to, we must continue to support agriculture. Agriculture is more than an industry; more than a career; more than animals and crops: it's our nutrition and the foundation for our well-being.

Agriculture is even more than a part of our everyday lives: it keeps us strong and healthy.



## Agriculture Card: Pesticide Use



**Discussion:** Can you name a type of pesticide? What is it used for?

### What is a pesticide?

A pesticide is a substance or mixture of substances that is applied to plants to prevent, destroy, control or repel pests.

### Test your knowledge:

- ☞ There are four groups of pesticides: herbicides, fungicides, insecticides and rodenticides. Herbicides control weeds, fungicides control fungus, insecticides kill insects, and rodenticides – you guessed it: rodents.
- ☞ Pesticides work in a number of ways, including by interfering with the growth, reproduction or development of the pest, or by killing the pest.
- ☞ Pesticides are useful because they help to kill disease-causing organisms and control insects, weeds and other pests.
- ☞ In the past, pesticides were dangerous to humans, animals and the environment because of their job as organism-killers. Now, with new technology, pesticides are more selectively targeting pests, resulting in much less harm to other species.
- ☞ Some studies claim that there is a correlation between pesticide use and health problems, and we should always be careful when using them.
- ☞ Pesticides can come into contact with people in three ways: oral (swallowing), dermal (skin contact) and by inhalation. **Always read the warnings on the label!**

### Fast Fact:

The word 'pesticide' literally means pest-killer. *Cide* is Latin for kill – as in homicide. Any ideas what herbicide means? (Hint – it's not just for herbs!)

### Regulations:

- ⇒ All pesticides must be registered with the federal Pest Control Products Act (PCP).
- ⇒ The PCP protects the health of Canadians and the environment.
- ⇒ In order to register with the PCP, scientific studies must be conducted on the product to ensure it meets health and safety regulation. This means that registration is a long process.

### Labels and Warnings

Pesticides aren't the only dangerous products you might find in your house or garage. Even table salt and caffeine can be toxic in high levels. Think of two or three items in your home, other than pesticides, which have warnings on the label.

### **The urban use of pesticides:**

Do you hate the look of dandelions on the lawn? Some homeowners choose to use a selective herbicide (such as 2,4-D) while others grin and bear their yellow dotted lawn. Some of the reasons for not using herbicides on lawns include concerns for children, pets and the environment. How do you feel about the urban use of pesticides?

### **Rural use:**

Whereas urban pesticide use can be seen as serving solely an aesthetic purpose, rural pesticide use occurs for quite different reasons. Let's take, for example, a field of wheat that has not been sprayed with any pesticides. When it comes time to harvest the wheat, the field will be full of weeds, or worse, have suffered from disease or insects. A farmer who harvests a field on which pesticides have been sprayed will save time and money, as well as having a bigger crop. A larger crop will feed more people and animals. The safe use of pesticides by farmers means bigger yields and often makes economic sense.

### **To spray or not to spray...**

Much like any powerful technology, pesticides can pose a risk. With knowledge and proper management, however, pesticides can be used safely. Proper management means awareness of risks involved and taking the necessary precautions to eliminate these risks. The decision to spray (or not to spray) usually involves weighing the advantages and disadvantages that come with pesticide use. These pros and cons will vary depending on what and where you are spraying. For instance, the advantages of spraying a lawn for weeds will be different than the advantages of spraying a field of corn. If you are interested in finding out more about the movement away from pesticides by both consumers and farmers, read the *Organic Foods* card.

### **Integrated Pest Management – IPM**

IPM is a way of managing pest problems using more than one method, including:

- ✧ cultural (using pest resistant varieties)
- ✧ mechanical/physical (using physical barriers to control pests)
- ✧ biological (using viral or bacterial pest diseases)
- ✧ genetic (using genetically modified varieties)
- ✧ chemical (using pesticides, herbicides etc)

IPM can benefit the environment, human safety, and be cost effective. It is becoming more and more popular as a pest control method because it doesn't rely on any one method of control.

The steps involved in IPM include:

1. Identifying and monitoring pests
2. Determining if action is needed
3. Taking preventative or curative action

# Promotion Card:

## Displays

**A display is meant to present information quickly and in an interesting manner. You have only 60 seconds to:**

1. Arouse interest
2. Stimulate thought
3. Cause action

**Effective displays do all three things in under a minute!**

### What draws your attention to displays?

- ✓ colour
- ✓ font
- ✓ pictures
- ✓ free stuff
- ✓ pamphlets
- ✓ people

### What makes a good display?

- ✓ backdrop
- ✓ size, clarity and font of lettering
- ✓ amount of information
- ✓ pictures
- ✓ colour
- ✓ appropriate size
- ✓ balance

### Plan the display:

1. Purpose
2. Audience
3. Theme
4. Ideas and Content
5. Title
6. Colour
7. Table space



### Elements of Design:

HARMONY    BALANCE    PROPORTION    EMPHASIS    COLOUR    UNITY

### Tips for making your display:

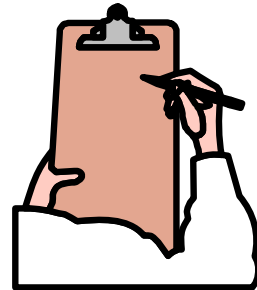
1. Plan the exhibit through sketches.
2. Decide what your main message and theme will be.
3. Consider your target audience.
4. Consider the space available for the display.
5. Get ideas by talking to members and leaders and looking at other displays.
6. Plan a colour scheme.
7. Make a catchy, short and simple title.

8. Use paint, markers, pencil crayons and the computer to construct the display.
9. Use a centre of interest to draw the eye to one area.
10. Make sure the writing is visible, clear and concise.

### **Judging Exhibits:**

Exhibits are just one of many things you can judge. When judging exhibits, think about how eye-catching they are. How much information do they convey? The following is a suggested scorecard to consider when judging displays:

<b>General Appearance</b>	<b>20</b>
<b>Power to attract and hold attention</b>	<b>25</b>
<b>Message</b>	<b>25</b>
<b>Unity in presenting message</b>	<b>15</b>
<b>Quality of materials</b>	<b>15</b>



### **Activity: What would YOU put at a display?**

Using old cereal or pizza boxes create your own display. Make sure that it is interesting, readable and eye catching.

#### Group #1:

Use markers to create your display. All of the information must be handwritten.

#### Group #2:

Use both markers and the computer for information, but any pictures must be hand drawn.

#### Group #3:

All information must be typed and all pictures must be from photos or magazines. Nothing can be handwritten or hand drawn.

After each group has completed their display, compare the three displays. Which one is most appealing at first glance? Which one has the most information on it? Which has the most balance and uniformity? Do the displays look better if done by hand or on the computer?

Make a list of the best things from each display and discuss how to make an even better one.

### Additional Resources:

“Exhibits” and “Demonstrations” guides available from the 4-H Ontario office, or contact your local association.



## Promotion Card: Interviews

What makes a good interview? When have you seen or heard an interview? What do you think is more important – the interviewer or interviewee and their responses?

Do you see interviews as a good promotional tool? Why or why not?

### How is an Interview a Promotional Tool?

An interview is a great way to tell the public about a certain public event as well as clearing up any misconceptions or false information.

### Types of Interviews:

There are different ways in which an interview can be conducted.

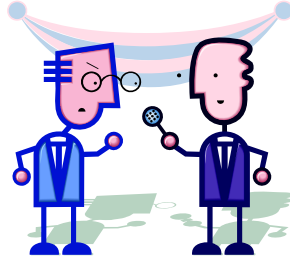
- 1) Formal Interview – information, questions and responses are prepared in advance  
-- answers are clear, logical and correct
- 2) Informal Interview – more relaxed, answers are not prepared in advance
- 3) Public Interview – with a reporter for television, radio or newspaper

### Skills and Techniques:

Here are some things to remember when doing an interview as a representative of 4-H:

- 👍 Be friendly, honest, positive and sincere
- 👍 Keep it simple and to the point
- 👍 Speak plainly and use easy to understand words
- 👍 Use non-offensive language (for example avoid words like 'slaughter')
- 👍 Stay calm and composed
- 👍 Try to avoid statistics
- 👍 There's no such thing as a stupid question
- 👍 State your opinion and stick to it
- 👍 Don't apologize for what you do – instead explain why you do it
- 👍 Remember you are informing and not just defending
- 👍 Use appropriate body language
- 👍 Don't be afraid to say "I don't know"
- 👍 If you don't know the answer, follow up or offer to find out
- 👍 Try to stay away from "what if" questions





### **Body Language:**

Interviews involve talking directly with another person. Body language is important because not only is the interviewer listening to what you say, but they are also watching how you say it.

Try to use body language and gestures to appear friendly, sincere and approachable:

- ◆ Don't cross your arms in front of you because it makes you appear defensive and angry
- ◆ Face the other person with your shoulders towards them
- ◆ Stand (or sit) straight – don't slouch or you might look like you have something to hide
- ◆ Show animation and use gestures when you speak
- ◆ Show interest and listen attentively
- ◆ Speak carefully and slowly
- ◆ Make eye contact
- ◆ Keep your body relaxed
- ◆ Break the "invisible wall" – the personal space around you
- ◆ Try to get rid of any distracting habits or mannerisms when you speak
- ◆ Look straight ahead, not at your feet or the floor
- ◆ Make your gestures smooth and related to what you are saying
- ◆ Try to look friendly – smile!

**Notes...**

# Promotion Card:

## Posters and Brochures

### Discussion Question:

What do you think makes a good poster or brochure?

### **Why use a poster or brochure?**

Posters are a good way to display information and reach a large number of people. They are easy and inexpensive to make. Brochures are also effective communication tools because they can be distributed to people, who can keep the information with them.

### **What to include:**

#### **Information:**

- who
- what
- when
- where
- why

#### **Appearance:**

- colour
- graphics and pictures
- interesting and readable fonts

#### **Headings:**

- grab the reader's attention
- interesting or funny headings are good attention-getters



### **Heading Ideas:**

(provided by the Ontario Farm Animal Council)

#### ***Which Came First: The Chicken or the Egg?***

*We're not sure, but we do know hens don't need roosters to lay eggs and only need half as much feed as 40 years ago to lay a dozen eggs.*

#### ***Old MacDonald Still Has a Farm...***

*Over 98% of Canadian farms are family owned and operated*

#### ***Why Do Children and Pigs Like Tires?***

*They make a great toy. Farmers often give animals objects like tires to enrich their environment.*

#### ***How Are New Barns and Office Buildings Alike?***

*They both use new technology like energy efficient lighting, heating, ventilation and computers for safe and healthy environments.*

***Did You Know Farm Animals Come with an “Owner’s Manual”?***

*Recommended codes of practice are national guidelines for farm animal care. Farmers, vets, scientists, government and animal welfare groups approve and distribute them.*

***How is a Farm Animal like a Blue Box?***

*They both reduce waste that would otherwise go into a landfill by recycling items into many useful products.*

***Snowstorms, Birthdays or a Good Night’s Sleep Won’t Keep Farmers out of the Barn...***

*Farmers know that productive hands are caring hands. They’re committed to animal care 365 days of the year.*

***Is the Grass Greener on the Other Side?***

*It doesn’t matter for ruminants like cattle, sheep and goats. Ruminants have special stomachs that can digest grasses to make nutritious foods and other products.*

***Can Pigs Fly?***

*Each type of animal has different needs. Experience and research help us learn what is best for each one.*

**Ideas and Activities:**

- Create your own posters or brochures to promote agriculture.
- Compare different styles and types of posters or brochures. Discuss what you like and don’t like about each one.
- Brainstorm ideas for an interesting poster or brochure.
- Keep your target audience in mind when designing your posters!

**Additional Resources:**

For more great ideas about creating effective posters and brochures, contact 4-H Ontario for a copy of “Exhibits” and “Demonstrations” guides, at 1-877-410-6748 or email [inquires@4-hontario.ca](mailto:inquires@4-hontario.ca) or ask your local association.

## Promotion Card:

### Press Releases

What catchy title would you put on a press release advertising your achievement program?

#### What is a Press Release?

A press release is a promotional tool used to deliver information to the media in a manner which is straightforward and easy to use.

#### Why use a Press Release?

Press releases are a great way to let people know about your event and the best part is that they are free!

#### What's in a Press Release?

- ⇒ name of event
- ⇒ date of event
- ⇒ location
- ⇒ time of event
- ⇒ description of event
- ⇒ picture if possible
- ⇒ contact names and phone numbers

You should try to send the press releases two weeks before the deadline. Remember to put an eye-catching headline on the top of the press release to draw attention to your event.

If you want people to attend your event then you need to advertise.

- ⇒ What are some ways that you can advertise?
- ⇒ How much will it cost?
- ⇒ Can you do it for free?
- ⇒ **Look** at the options and find the one that best fits your budget.

Discuss these questions in small groups and have each group present options and choices to the rest of the club.

#### Why Do You Need a Press Release?

1. It's economical
2. Free press is good
3. Great way to get people to your event

4. Best advertising is word of mouth, so get the info out there!

### **Write Your Own Press Release:**

Write your own press release about your club's achievement day. Make sure to include the five W's: Who, What, When, Where and Why, as well as the other helpful suggestions found above. After you have written your release, get into groups of two or three. Your job is to be the editor of the newspaper and to choose one of the press releases to go into the paper. Explain why you chose the one you did.

### **Press Release Judging Activity:**

Now that you are a pro at press releases, you get to be the judge! Judge the class of four press releases. Be ready to give reasons!

Suggested Scorecard:

General Appearance.....	30
Title .....	20
Five "W"s .....	40
Contact Info .....	10

### **Don't Forget:**

- ★ Catchy Title
- ★ Who, What, When, Where, Why
- ★ Description – what's going to happen at the event
- ★ Purpose and who benefits
- ★ Target group
- ★ Contact information



## **Promotion Card:**

### **Public Speaking and Presentations**

Take a minute and think about some of the presentations you have seen or heard. How was the message presented effectively? How could the speech or presentation have been improved?

#### **How to Communicate:**

When you communicate with the public, whether it is one person or a large group, there are some points that you need to consider...

- ✦ use language appropriate to the audience
- ✦ relate the message to the audience
- ✦ get the audience involved
- ✦ keep it short and simple
- ✦ give specific examples
- ✦ be patient when explaining new or difficult concepts
- ✦ correct any false assumptions
- ✦ be prepared for questions
- ✦ be positive
- ✦ be a good listener if being spoken to
- ✦ stick to what you know and don't make anything up
- ✦ avoid preaching your opinions
- ✦ talk slowly and clearly
- ✦ maintain eye contact with the audience
- ✦ stay calm and relaxed
- ✦ use natural gestures and good body language

#### **Agricultural Messages**

When delivering your speech or presentation, here are three messages that help to promote agriculture:

1. "I believe in the humane and responsible care of all animals."
2. "As Canadians, we enjoy one of the safest, most abundant and most affordable food supplies in the world."

3. "Livestock and poultry play an important part in sustainable agriculture, and in everyone's way of life."

## **Presentation**

The way in which you present your information is just as important as the information you're presenting. You must appear open and interested to your audience, or they will not be interested in what you have to say.

Speak in a loud, clear voice and maintain eye contact with the audience. But remember that you are there to inform the audience, not to preach to them. Be open minded to different opinions.

Another important thing to remember is audience involvement. Fun and interactive displays or other audio-visual aids can enhance a presentation or speech. If the whole presentation is only one person standing and talking, the audience will quickly lose interest.

4-H is all about learning to do by doing and your presentation shouldn't be any different. Your audience should have the opportunity to learn the presented information for themselves. Activities are a good way to get the audience involved because they inform and entertain at the same time. They are also a good way to break the ice at the start of a presentation.



## **Public Speaking**

Public Speaking is often looked on with fear and dread, but it is an informative and engaging medium in which to convey your information. A good speech makes the audience feel emotion, learn new information and might stimulate them to change their thinking or actions.



## Promotion Card: Videos



What do you think makes a great video? How would you incorporate this into your own video?

### **Why Make a Video?**

Videos are a great way to promote events and activities. Videos are a great information tool because they can hold a lot of information and are entertaining and engaging.

### **What's Involved in Creating a Film?**

- ★ The first thing that you need to do is decide what the film is going to be about. Once you have selected a topic, you must decide what message you want to get across.
- ★ Next, you have to plan how you are going to create the video. What scenes do you want to include? What about the set, scenery, equipment and actors?
- ★ Keep in mind your abilities and skill level and plan appropriately.
- ★ Remember that this video is supposed to be a promotional tool while being informative and interesting.

Once everything is planned, you are ready to film the first scene. After completing each scene, it might be a good idea to view it and make any necessary changes – this is called editing.

### **Things to Think About:**

The main reason for creating this video is to inform the audience and promote your topic – agriculture – from your chosen perspective. When creating the film keep this in mind and stay on topic. Also, remember who your target audience is. Before you start filming you must decide who your audience will be – who are you trying to reach? Make sure the topics covered and language used will be understood by the chosen audience.

### **Storyboarding:**

A storyboard is a tool used in creating films and videos. It is a way to plan scenes and shots before you start filming. Below is a blank storyboard that you can fill in before filming the video. Draw in the actors and scenery and write script below. Show how each scene will be shot (camera angles) and how you will move from one scene to another (transitions).



Draw the scenes and write any dialogue below – don't forget to show how it's going to be shot!



**Additional Ideas:**

- ◆ Show your video at a local fair, school or at another 4-H meeting.
- ◆ Team up with younger members to create a promotion video for your club or county.
- ◆ Create a video promoting agriculture awareness and promote a film screening using another promotion technique you learned about.

## Promotion Card: Demonstrations



What skill or knowledge would you like to demonstrate to an audience?

### What is a demonstration?

A demonstration is a presentation by one or more people showing and telling an audience how and why to do something, or explaining a topic.

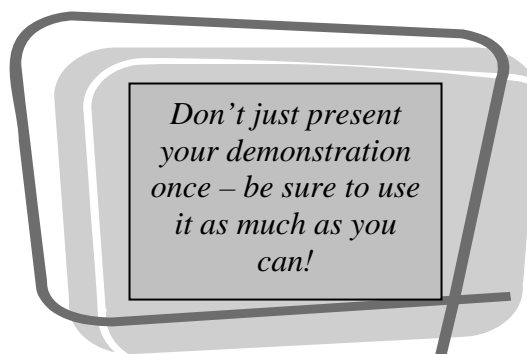
### Why do a demonstration?

Presenting a demonstration is a great way to share knowledge and to express yourself in front of others. Demonstrations can be great promotional tools because they are entertaining and clearly present information to a group of people.

### Where to conduct demonstrations:

Here are some good suggestions for places to hold demonstrations:

- ✓ 4-H events
- ✓ other club meetings
- ✓ local fairs
- ✓ judging competitions
- ✓ achievement days
- ✓ awards nights
- ✓ safety days



### The how-to of a demonstration:

1. Think of a topic ( see suggestions below)
2. List the steps and processes that will be demonstrated and explained.
3. Outline the necessary explanations.
4. Plan visual aids.
5. Make a list of materials needed and estimate the costs.

This chart might help you plan your demonstration:

<b><u>Title of demonstration</u></b>			
<b>Speaker</b>	<b>Subject</b>	<b>Action</b>	<b>Equipment</b>
(Name)	(list main steps of the demonstration)	(show and tell the audience how or why – list steps)	(list audio, video aids etc. for each main point)

**Demonstration Format:**

1. Introduction: - be exciting, interesting and brief

- follow up to a catchy title
- say why you selected the topic
- state the purpose and what people should learn from the demonstration
- introduce those involved

2. Body - the 'show and tell' part

- show and explain each step
- use visual aids if necessary
- keep it simple and use your own words

3. Summary – re-emphasize the major points

- explain why this topic is important
- answer any questions and thank the audience

**Demonstration Topic Ideas:**

Here are just a few suggestions for your demonstration: 4-H projects, farm tours, recipes, crafts, showmanship, judging, ideas from the news, animals, clipping, feeding, disease prevention, tack cleaning, tractor safety, soil sample, first aid.

**Quick Tips:**

Look at the audience, stand up straight, speak loudly, clearly and slowly, stay calm and *don't forget to practice!*

## More Promotion Ideas

The promotion of agriculture doesn't have to stop at the promotion cards included in this project. Get the message out and increase awareness of agriculture!

Here are some general ideas for agriculture promotion. Feel free to add your own ideas to the list!

1. Poster
2. Radio (interview or advertisement)
3. Speech
4. Drama or skit
5. Magazine article
6. Photography spread
7. Power point presentation
8. Song or other type of music
9. Slide/ Overhead presentation
10. Book
11. Audio tape recording
12. Art exhibit
13. Poetry
14. \_\_\_\_\_  
\_\_\_\_\_
15. \_\_\_\_\_  
\_\_\_\_\_

## Activity:

### Taking a Closer Look at Soil

This activity is a great way to learn about different types of soil and the importance of soil to agriculture.

#### You will need...

Water, soap (for cleanup), plastic bags or clear jars, different types of soil samples

⇒ Before the meeting, have soil samples collected and placed in jars or bags. Or you can ask members to collect and bring their own soil samples to the meeting.

#### Analyse your soil samples and answer the questions below:

1. Origin of soil sample (place found) \_\_\_\_\_
2. Colour of soil \_\_\_\_\_
3. Texture (how does it feel) \_\_\_\_\_
4. Appearance of soil sample \_\_\_\_\_
5. The Feel Test – put a few drops of water in your hand with the soil. How does it feel?  

☐ Soapy (silt)☐ Gritty (sand)☐ Sticky (clay)
6. The Ribbon Test – how long a ribbon can you make when you add some water to your soil?  

☐ Long (clay)☐ Short (loam)☐ None (sand)
7. What objects (if any) can you see in your soil sample? \_\_\_\_\_  
\_\_\_\_\_
8. Are there any living organisms in the soil? \_\_\_\_\_
9. How does it smell? \_\_\_\_\_
10. What would it be suitable for growing? \_\_\_\_\_  
\_\_\_\_\_

*Adapted from an activity in “Lunch Box for Plants” Teacher’s Guide by OAFE and the Fertilizer Institute of Ontario.*

## Activity:

### Recipe Fun!

Making and enjoying food is a great way to learn about and appreciate agriculture.

Before making any of these delicious dishes, try to identify where the ingredients come from and who is involved in the production chain.

#### Turkey Salad

3 cups cooked, cubed turkey (or try chicken)  
(meat can be omitted for a vegetarian dish)  
6 cups cooked small pasta (try fusili or rigatoni)  
1 cup diced celery  
1 cup chopped onion  
½ cup chopped green onion or chives  
mayonnaise or salad dressing to taste

1. Mix the drained pasta and turkey in a large mixing bowl.
2. Add celery, onion and chives
3. Gradually add mayonnaise or salad dressing until you reach the desired consistency and taste.
4. Add salt, pepper or spices if desired.

You can also try adding cubed tomato and peppers instead of celery and chives. Experiment with spices and herbs – how about some parsley flakes?

Makes 6 servings.

#### Nachos

500 g nacho chips  
1 cup salsa  
1 cup sour cream  
cheddar or marble cheese as desired  
1 cup diced tomatoes  
½ cup sliced black olives  
1 cup green onions

1. Preheat conventional oven to 350°F
2. Spread the nacho chips on a large oven-safe plate, leaving a space in the centre.
3. Sprinkle half of the olives, tomatoes and onions over the nachos.
4. Cover with grated cheese.
5. Sprinkle the remaining olives, tomatoes and onion over the cheese.
6. Place baking sheet in the oven until cheese is melted – about 10-15 minutes.
7. Remove from oven and spoon sour cream and salsa into the middle of the nachos. Enjoy!

### **Peachy Orange Blossom**

(from “Just Add Milk” brochure by the Dairy Farmers of Canada)

- 1 cup cold milk
- 1 cup peach yogurt
- ½ cup drained mandarin oranges
- ¼ cup orange juice

1. Place all of the ingredients in a blender.
2. Blend until smooth.
3. Pour into glasses and enjoy.
4. You can also substitute another flavour of yogurt and experiment with different fruits. For example, try raspberry yogurt and fresh raspberries.)

Makes 2 ½ cups.

### **Traditional Milkshake**

(from “Just Add Milk”)

- 1 cup cold milk
- 1 cup ice cream (try strawberry or chocolate)
- 1 cup fresh or frozen berries

1. Place all ingredients in a blender.
2. Blend until smooth.

Makes 3 ½ cups.

*For more milk recipes, visit [milk.org](http://milk.org).*

### **Lemon Roast Potatoes**

From The Royal Agricultural Winter Fair Country Recipe Collection

- 8-10 peeled potatoes
- 1 cup water
- ½ cup lemon juice
- 1/3 cup olive oil
- 3 minced garlic cloves (or substitute garlic powder)
- 2 tsp salt
- 2 tsp dried oregano
- 1 tsp pepper

1. Cut the potatoes lengthwise into wedges and place in a baking dish.
2. Whisk the remaining ingredients together and pour over the potatoes.
3. Turn the potatoes to coat them in the sauce
4. Bake at 325°F oven, turning the potatoes occasionally, for about 2 hours.
5. Make sure the potatoes are tender and most of the liquid has been absorbed.

Makes 8 servings.