

# Safe Choices

## Farm Family Walkabout Guide



**SAFE  
FARMS**

**S** SPOT THE HAZARD  
**A** ASSESS THE RISK  
**F** FIND A SAFER WAY  
**E** EVERYDAY

**Manitoba** 

# Safe Walkabout Planning Calendar



**SAFE FARMS**

SPOT THE HAZARD  
ASSESS THE RISK  
FIND A SAFER WAY  
EVERYDAY

January						
S	M	T	W	T	F	S

February						
S	M	T	W	T	F	S

March						
S	M	T	W	T	F	S

April						
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May						
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November						
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December						
S	M	T	W	T	F	S



## Introduction

**Each year people of all ages are injured, become ill or even die as a result of activities on farms. Almost all of those situations could have been prevented with greater awareness and planning.**

This guide will help parents / farm managers prepare a safe, rewarding work environment on the farm. Young and new workers must be supervised to ensure they understand safety rules and are capable of performing the tasks assigned to them. The adults in the family will reinforce their safety and health practices and set the standard for making the farm a safe, successful operation, making safety and health provisions for all.



The best place to start creating a safety plan is by choosing an area you feel has the greatest risk to your family and workers. Once you have a plan for this area, go on to the next area of concern. Use the Farm Family's Safety Checklist to help you evaluate and reduce the risk. Create your own calendar to prioritize the activities to evaluate on your farm based on the season.

There are three basic steps to a safer farm for you and your family:

**Step 1** Understand the different skills and abilities of the people on your farm.

**Step 2** Assess the hazards on the farm with the people who may be exposed to them.

**Step 3** Ensure everyone is aware of the hazards and can do their jobs safely. This includes:

- equipment
- materials
- environment

**As you and your family walk through your farming operation, everyone should share in the learning and awareness process.**

- create a list of tasks (chores) that might be suitable for various family members (don't forget to list those areas where young, new or older workers might have to be accompanied by a more experienced or able-bodied person)
- make a sketch or plan of the work yard and workshop and other areas requiring precautions.
- Update your inventory of hazardous products and review who should be handling them – consider getting or making warning signs for areas that present exceptional hazards – that includes need for safety glasses in the shop

## Step 1

### *See what your family members see – bridge the gap*

We all see the same things. However, we perceive them differently, depending on past experience and knowledge. The ability to recognize a potential hazard comes from awareness. We are more likely to anticipate results if we, or someone we know, have experienced similar circumstances.

Three elements must interact in order for an incident to occur:

- **object**, or a source of energy
- **environment** with unstable conditions
- a **person**

For example, if you have an unsecured dual wheel from a tractor (the **object**) leaning against a wall (the **environment**) and you add a child (the **person**) playing hide and seek between the wheel and the wall, you have all three required elements for a potential incident. The probability of an incident occurring would be greatly reduced if the wheel was secured not to move and the child not permitted to play in that area.

### **FIND the HAZARDS in the picture on the right (See back of book for the answers).** →

There are many potential hazards shown in this picture. Some are exaggerated, and some are subtle. We can identify them all when someone explains the risks associated with the activity.

To assess potential hazards on the farm, it's important to understand the abilities of children.

## Ages 7 to 9

This is a time of slow, steady growth. Children at this age are a source of boundless energy, eager to test their skills and take on new tasks. As their reaction time slowly improves, they begin to deal with issues of location, distance, weight and force. However, this can lead them to think they have abilities beyond their skills. Younger children generally have an attention span of 10 to 12 minutes. Oral instructions don't work as well as demonstrations. Parents should not expect too much from this age group. They must physically demonstrate tasks and constantly supervise their children.

## Ages 10 to 11

Hand-eye co-ordination and depth perception start to at this age. This is also the time when girls tend to be bigger and stronger than boys. Growth spurts begin that can lead to some clumsiness. Children's attention spans increase to about 20 minutes and they begin to think in concrete terms. However, children tend to see tasks as interesting or boring and seldom finish tasks that bore them. Parental supervision and demonstration are still a must.



**NERO AND ASHCAN ON THE FARM – FIND THE HAZARDS PICTURE**



Answers located at back of book

## Ages 12 to 13

This is a period of rapid physical growth, when children start to test the limits of their abilities. Clumsiness and co-ordination issues begin to arise. Children begin to develop abstract thinking skills and understand tasks without seeing them performed. Using the skills they've developed with other tasks, they start to recognize and apply their skills to new tasks. However, this is also the age when children are often rebellious and self-occupied. This can lead to aggressive risk-taking. Parents must be aware their children's increased size is no substitute for experience and children may still be easily distracted.

## Ages 14 to 15

Skills begin to improve with practise. However, in this phase, children's behaviour can be unpredictable – acting like adults one day and children the next. At this age, children develop the ability to think and project into the future. They are still rebellious and may not focus on the task at hand. This can lead to trouble in decision-making. Parents must be sure not to overestimate their children's abilities, but may also begin to provide less supervision.

Remember, children aren't the only ones with limitations. Regardless of age, we all have personal attributes that may place us at greater risk than others when we're working on the farm. As we mature changes to our body systems occur which may affect our attention spans, vision, hearing, muscle mass, joint movement, cardiovascular and respiratory systems. It is important to take these factors into consideration when we assign or accept work tasks.

## Step 2

### *Watch for hazards – know the risks*

A hazard is a condition or object that has the potential to cause damage or threaten your personal safety. These conditions may seem familiar to you and you may intuitively take precautions to protect yourself. **But**, they are not obvious or understood by children.

The five different categories of hazards are:

- **Physical**

A physical hazard includes any object that has the potential to cause physical injury. This includes energy sources such as heat, electricity, pressurized air, liquids, noise and vibrations.

- **Chemical**

Chemical hazards may result in poisoning or burns, or may interfere with body functions such as breathing.

- **Biological**

Allergic reactions, infections and health conditions can result from exposure to biological materials. Biological materials include animal dander, manure, cold and flu viruses, blood and body fluids from animals, humans, insects, etc.

- **Ergonomic**

The interaction between a person and the work they are doing can place undue stresses on the body, which can cause ergonomic problems. For example, a five-foot tall person, having to bend over a 30-inch partition repeatedly, or having to lift objects over that wall would be exposed to an ergonomic hazard.

- **Psychosocial**

Emotional pressures and changes in lifestyle can create psychosocial hazards. For example: having work until 2:00 a.m. every night for a week to meet a production deadline, could cause psychosocial issues. If you are preoccupied with getting the job done and not physically alert because your body is accustomed to resting at 11:00 p.m., fatigue can increase the potential for injury or illness.

## Step 3

### *Manage the risk – control the hazard*

A risk management plan can help you reduce the chance of someone being injured by hazards on your farm. The following are examples of how the risk of exposure to hazards can be controlled are listed from the most effective to the least:

### Control the hazard at the source

**Elimination** – Try getting rid of the hazard (ex: an aggressive animal).

**Substitution** – If elimination is impractical, try replacing hazardous substances with something less dangerous.

**Redesign** – Sometimes it is necessary to redesign the layout of the workplace, workstations, work processes, or jobs to eliminate or control hazards.

**Isolation** – Isolating, containing or enclosing the hazard is often used to control chemical hazards and biohazards (ex: not permitting entrance to a pen housing an agitated or aggressive animal).

**Automation** – Dangerous processes can sometimes be automated.

## Control the hazard along the path

**Relocation** - Move the hazardous process, tools, or equipment somewhere safer.

**Blocking the hazard** – Put up barriers (ex: securing dual wheels when not mounted on the tractor).

**Absorbing the hazard** – Remove the hazard where it is generated (ex: ventilate an area where welding fumes exist).

**Dilution** – Reduce the effects of a hazardous area (ex: general ventilation in the entire work area).

## Control the hazard at the worker's level

### Administrative controls

Introduce new policies, improve existing procedures and require family members and workers to use specific protective equipment and hygiene practices.

### Procedures, training and supervision

Use safety management and supervisory practices. Family members and workers should be trained to use standard, safe, work practices.

### Emergency planning

Written plans should be in place to handle fires, chemical spills and other emergencies. Family members and workers should be trained to follow these procedures and use appropriate equipment. Regular refresher training should be provided.

### Housekeeping, repair and maintenance programs

Housekeeping includes cleaning, waste disposal and spill cleanup. Tools, equipment and machinery are less likely to cause injury if they are kept clean and maintained.

### Hygiene practices and facilities

These can reduce the risk of toxic materials being absorbed and transferred to family members.

### Personal protective equipment and clothing

These are used when other controls aren't feasible, additional protection is needed, or the task is temporary. Everyone must use personal protective equipment when product information or work procedures call for its use. Everyone must be trained to use, store and maintain their protective equipment properly and be aware of the limitations of their equipment.



# Applying Risk Management

The best way to determine the risks associated with a job is to do a job safety analysis (see sample analysis on page 10). Break the job down into manageable steps and then identify potential hazards in each step

## 1. Initial Safety Analysis

The following information considers the overall aspects of farm safety. When doing a job safety analysis for a task you want a person to perform, keep in mind the possible limitations that person has.

- Identify a specific job someone performs.
- Break that job down into the individual steps or tasks required to complete the entire job.
- Identify the potential hazards associated with performing each task.
- Determine what actions or measures would be necessary to eliminate or control the hazards of each task.
- Make the necessary changes in equipment, product and engineering to ensure effective training.

Conducting a job safety analysis is straightforward. Refer to table I for an example of a common farm task analyzed through a job hazard analysis format.

## 2. Break the Job Down into Steps

Every task can be broken down into steps. There is usually a logical order to the steps that works best. Eventually, this sequence of steps will form the basis of your safe work procedure.

Identifying every stage of the task is vital to the end result. Consider everything the person doing the work will have to do. To make sure the task is clearly understood, the steps must include every key activity involved to get it done properly and cut out anything that will complicate or over-burden the process.

## 3. Identify Potential Hazards in each Step

Examine every aspect of the task to see if potential hazards exist.

Every aspect of the task should be considered including safety, quality and production. Consider what damage could be done to the person, machinery, area or environment if the task isn't done properly and assess the possible long-term effects.

### Questions to ask:

#### People

- Could the worker be caught in, on or between? Struck by? Fall from, fall into?
- What contacts are present that could cause injury, illness, stress or strain?
- What practices are likely to downgrade safety, productivity, or quality?

## Equipment

- What hazards are presented by tools, machines, vehicles or other equipment?
- What equipment emergencies are most likely to occur?
- How might equipment emergencies cause loss of safety, productivity or quality?

## Materials

- What harmful exposures are presented by chemicals, raw materials or products?
- What are the specific problems involving handling materials?
- How might materials cause loss of safety, productivity or quality?

## Environment

- What are the potential problems of housekeeping and order?
- What are the potential problems of sound, lighting, heat, cold or ventilation?
- Is there anything in the area that would be affected if there are problems with the task?

## 4. Eliminate and Control Hazardous Situations

Do an improvement check to see if work can be done better. Changes in structure, planning, innovation and worker involvement can be good, when they contribute to improvements in safety, quality, productivity and cost control.

To do an improvement check, start by asking: Who, What, When, Where, Why, and How? For example:

- Who is best qualified for a task?
- Where is the best place to do it?
- When should it be done?
- What is the purpose of this step?
- Why is this step necessary?
- How can it be done better?

Analyze the work in terms of safety and how it interacts with the *people, equipment, materials and environment* involved.



## 5. Making Changes

Determine actions and precautions that will prevent, or minimize the effect of, a potential loss. Ideas for controls will naturally come out of the previous exercises. Keep in mind that controls should consider the people performing the tasks by making sure they know how to avoid, eliminate, or reduce hazards.

## 6. Evaluation

Ensure all control measures you implement are evaluated on the basis of effectiveness.

In addition to the basics, we have added two additional columns which may be of particular interest to seniors. They are:

### **Minimum ability to safely perform the task**

This assesses the abilities a person has to safely do the task.

### **Personal risk factors**

This refers to conditions that could make an otherwise safe activity dangerous. For example, if the person doesn't not have the strength to move or activate a control – can they safely perform that task? Use the blank Job Safety Analysis charts at the back of this book or create one that suits your needs.

**TABLE II Job Safety Analysis**

**Job Description** *Running a pressure washer (12 – 13 year old)*

<b>Specific Task</b>	<b>Minimum Ability to Safely Perform Task</b>	<b>Hazards of Task</b>	<b>Personal Risk Factors</b> (to be completed by individual familiar with person task is assigned to)	<b>Action Plan</b> (to be completed by farm manager)
<b>Visual inspection of pressure washer for mechanical soundness</b>	<ul style="list-style-type: none"> <li>• knowledge of controls &amp; machine capabilities</li> <li>• dexterity</li> <li>• strength / flexibility to operate controls</li> </ul>	<ul style="list-style-type: none"> <li>• slip / drop machine</li> <li>• abrasions from washer hitting leg</li> </ul>	e.g. anxious to get started not paying full attention to instructions	e.g. have new worker explain procedure and demonstrate 'dry-run' of process
<b>Moving pressure washer to work area</b>	<ul style="list-style-type: none"> <li>• physical strength to carry / move unit into work location</li> </ul>	<ul style="list-style-type: none"> <li>• muscle strain</li> <li>• trip /fall</li> </ul>	none	e.g. provide near constant supervision
<b>Attach water supply hose</b>	<ul style="list-style-type: none"> <li>• grip strength to tighten connection</li> <li>• knowledge of thread direction and effect of cross threading</li> </ul>	<ul style="list-style-type: none"> <li>• hand abrasions from hand slipping on hose connector</li> </ul>	e.g. hand grip strength	e.g. instruct on usage of tool to assist connection tightening, wear moisture resistant gloves, near constant supervision
<b>Start gasoline engine to drive pressure washer</b>	<ul style="list-style-type: none"> <li>• knowledge of starting procedure</li> <li>• grip strength to hold starter cord</li> </ul>	<ul style="list-style-type: none"> <li>• starter rope slipping from hand</li> </ul>	e.g. hand grip strength	e.g. supervisor assists with starting
<b>Add detergent</b>	<ul style="list-style-type: none"> <li>• open container</li> </ul>	<ul style="list-style-type: none"> <li>• splash detergent in face</li> </ul>	e.g. hand grip strength	e.g. wear safety goggles, use tool to assist opening, near constant supervision
<b>Open water valve</b>	<ul style="list-style-type: none"> <li>• none</li> </ul>	<ul style="list-style-type: none"> <li>• none</li> </ul>	None	none
<b>Wash object</b>	<ul style="list-style-type: none"> <li>• maintain control of wash wand under pressure</li> <li>• grip strength to keep trigger engaged</li> </ul>	<ul style="list-style-type: none"> <li>• wetting objects not intended to washed</li> <li>• hand cramp</li> <li>• dirt splashing in face / eyes</li> </ul>	e.g. body strength to control wand and trigger	e.g. wear goggles / face shield, demonstrate two hand technique for holding wand, take frequent rest breaks – stretch hand during break, near constant supervision
<b>Put washer away</b>	Same as steps 1 to 6			



# HAZARD WARNING SIGNS



## NATIONAL SAFE TRACTOR AND MACHINERY OPERATION PROGRAM

### Introduction

Uniform safety signs are designed to promote and improve personal safety in agricultural workplaces. Safety signs have been developed to warn of farm machinery hazards, but there are also safety signs that apply to non-machinery hazards. Signal words, sign format, and color combinations all play a role in safety signs. This task sheet discusses uniform hazard warning signs that farm workers should observe and understand. Use specific owners' manuals to learn more about them.

### Safety Alert Symbol



This symbol was created to draw attention to the need for safety. The symbol means:

**Attention!**  
**Become Alert!**  
**Your safety is involved!**

The safety alert symbol is used with agricultural, construction, and industrial equipment. The primary uses of the symbol are in an owner's manual and on hazard warning signs.

### Good Hazard Warning Signs:

- Include the "safety alert" symbol
- Warn a person of the nature and degree of hazard or potential hazard
- Provide recommended safety precautions or evasive actions to take
- Provide other directions to eliminate or reduce the hazard



**DANGER**  
The most serious potential hazard. These are RED.



**WARNING**  
Show a lesser degree of potential hazard. These are ORANGE.



**CAUTION**  
Indicates a need to follow safety instructions. Usually are YELLOW.

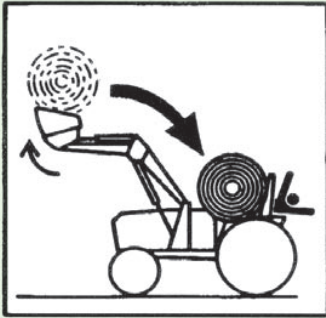


**Figure 2.8.a.** What message does this safety alert sign have for the operator? Try writing the message in as few sentences as possible. Which method—pictorial or written—conveys the message more quickly?

**Pictorial hazard warning signs provide safety alerts to readers and nonreaders of any language.**

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A pictorial quickly presents a potential hazard situation and a possible result of ignoring this potential danger. When these “picture” messages are seen, ask the question, “What is the worst thing that can happen to me?”



**Figure 2.8.b.** Potential for crushing hazard from shifting overhead load exists.



**Figure 2.8.c.** Potential for electric shock hazard exists.



**Figure 2.8.d.** Potential for crushing the feet from an overhead hazard exists.

**Pictorials pose the potential hazard to us, as well as the consequences of ignoring the hazard warning.**

## Pictorials

A pictorial is a graphical representation intended to convey a message without the use of words. It may represent:

- Hazards
- Hazardous situations
- Precautions to avoid a hazard
- Results of not avoiding a hazard
- A combination of these messages

Pictorials may be used in addition to or in place of a word message. The pictorial should quickly help a person to recognize a hazard. Many pictorials have been developed and are shown and explained here. Learn what each pictorial is trying to communicate. This could help you respond to or avoid a serious injury. Use the reference section to find a complete exhibit of pictorials for farm work.



**Figure 2.8.e.** This sign warns of a potential PTO entanglement.



**Figure 2.8.f.** This safety sign warns of a potential fall hazard. Always use handholds. Falls account for a large number of agricultural injuries and fatalities each year.



**Figure 2.8.g.** This warning sign placed near the radiator warns the operator of what hazard?

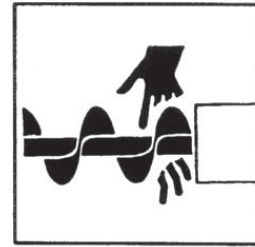
## Pictorials (Continued)



**Figure 2.8.h.** A potential high pressure hydraulic hose leak is a hazard which could force oil beneath your skin. Check hydraulic leaks with a mirror or piece of metal instead of your hand or fingers.



**Figure 2.8.i.** This safety sign warns of the potential to be run over by a tractor. Use the seat belt while operating the tractor equipped with a ROPS. Do not stand to drive. Passengers should not be allowed to ride the tractor. Extra riders are at a great risk for injury or death.



**Figure 2.8.j.** Potential entanglement in a rotating auger with cutting is shown. Moving parts need guards. If unguarded areas are encountered, the agricultural worker must use extreme caution.



**Figure 2.8.k.** Electrical contact with overhead power lines and the high lift bucket shows the potential for electrocution to the operator.



**Figure 2.8.l.** Possible slippery area with potential fall hazard is shown in this warning sign.



**Figure 2.8.m.** This safety pictorial shows the potential for thrown objects and the need for safety goggles. High noise levels indicate the need for ear protection.

**Hazard warning signs placed on tractors and machinery serve as quick, easy sources of information. They do not replace an owner's manual. The warning signs make the information readily available.**



**Figure 2.8.n.** Use the handholds and face the steps when mounting the tractor. What hazard warning sign would you expect to see in this situation?

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**Hazard signs and symbols provide the most direct information nearest the potential hazard site.**

**USE THEM!**

# Safe Walkabout Planning Calendar



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**TABLE II Job Safety Analysis**

Job Description *Running a pressure washer (12 – 13 year old)*

Specific Task	Minimum Ability to Safely Perform Task	Hazards of Task	Personal Risk Factors (to be completed by individual familiar with person task is assigned to)	Action Plan (to be completed by farm manager)



## Other farm safety and health resources available from Manitoba Agriculture, Food and Rural Initiatives and the Workplace Health and Safety Division:

- Farm Family's Guide to Safety and Health
- Farm Family's Safety Checklist
- Creating Safe Play Areas on Farms
- Farm Family Walkabout
- Making Farming Safe for Senior Farmers
- ON GUARD [www.pami.ca](http://www.pami.ca)

### Contact local MAFRI GO Office or Workplace Safety and Health Division Office

Glen G. Blahey, CRSP  
Provincial Farm Safety Coordinator  
Manitoba Agriculture, Food and Rural Initiatives  
Manitoba Labour and Immigration  
903 - 401 York Avenue  
Winnipeg, MB R3C 0P8  
phone: 204 945-2315  
fax: 204 945-6134  
1-800-282-8069 ext. 2315  
[www.gov.mb.ca/agriculture/farmsafety](http://www.gov.mb.ca/agriculture/farmsafety)  
[www.gov.mb.ca/labour/safety](http://www.gov.mb.ca/labour/safety)

### Answers to Nero and Ascan hazards on page 3

**1.** the tractor is going too fast, **2.** the tractor driver is not watching where he is going, **3.** a boy is riding on the tractor fender, **4.** a man is smoking near gasoline tanks, **5.** the loader bucket is up, not down during refueling, **6.** a child is playing alone near a dugout, **7.** chemical containers are left to drain and contaminate the surface water, **8.** a man is spilling chemicals into a sprayer tank without a funnel, **9.** the same man is handling chemicals without wearing protective gear, **10.** a man is lifting bales with his legs straight, putting all the strain on his back., **11.** the power takeoff is not shielded, **12.** a man is working too close to the power takeoff, **13.** the same man is wearing long clothing near exposed machinery, **14.** a child is riding the bale elevator, **15.** machinery is set too close to power wires, **16.** a man on the barn is dropping boards, **17.** the ladder is set too steeply, **18.** rungs are broken on the ladder, **19.** a man is climbing with both hands full, **20.** a lightning rod ground wire is broken, **21.** the bull is on a loose lead, **22.** a small child is leading the bull.



GROWING **Opportunities**

