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 - (**ab** = Assembly Bill) (**ar** = Assembly Resolution)
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 - Miscellaneous ... **Misc**
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Mission Statement

The National Farm Medicine Center is
dedicated to improving the quality of life
on our nation's farms and ranches
through research, education and community service.

Steven R. Kirkhorn, M.D., M.P.H.
Medical Director, National Farm Medicine Center

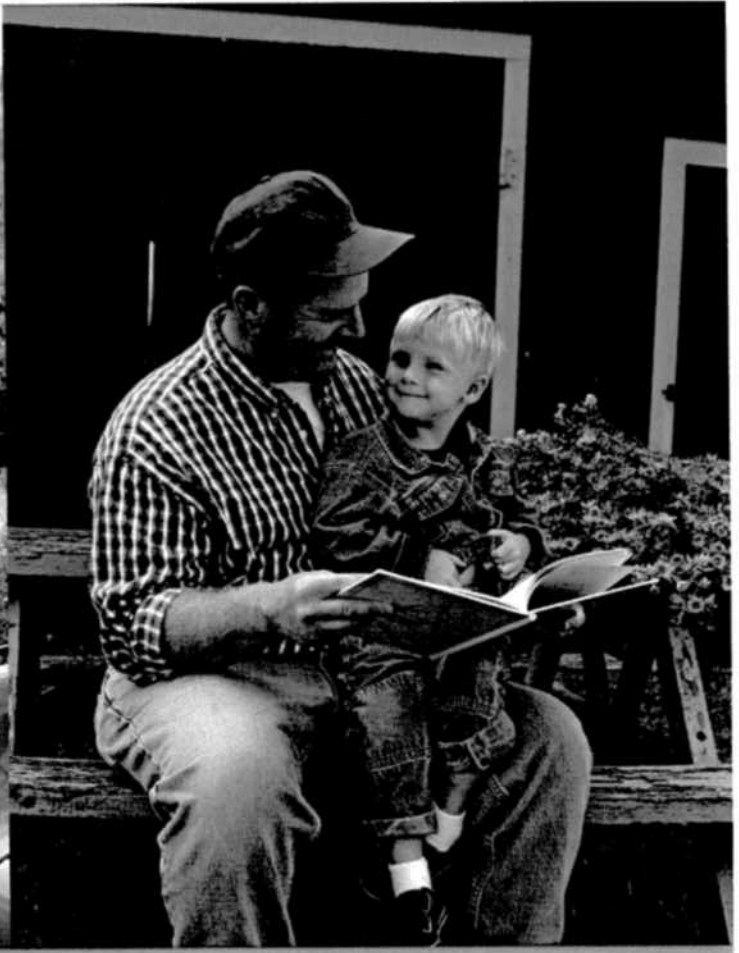


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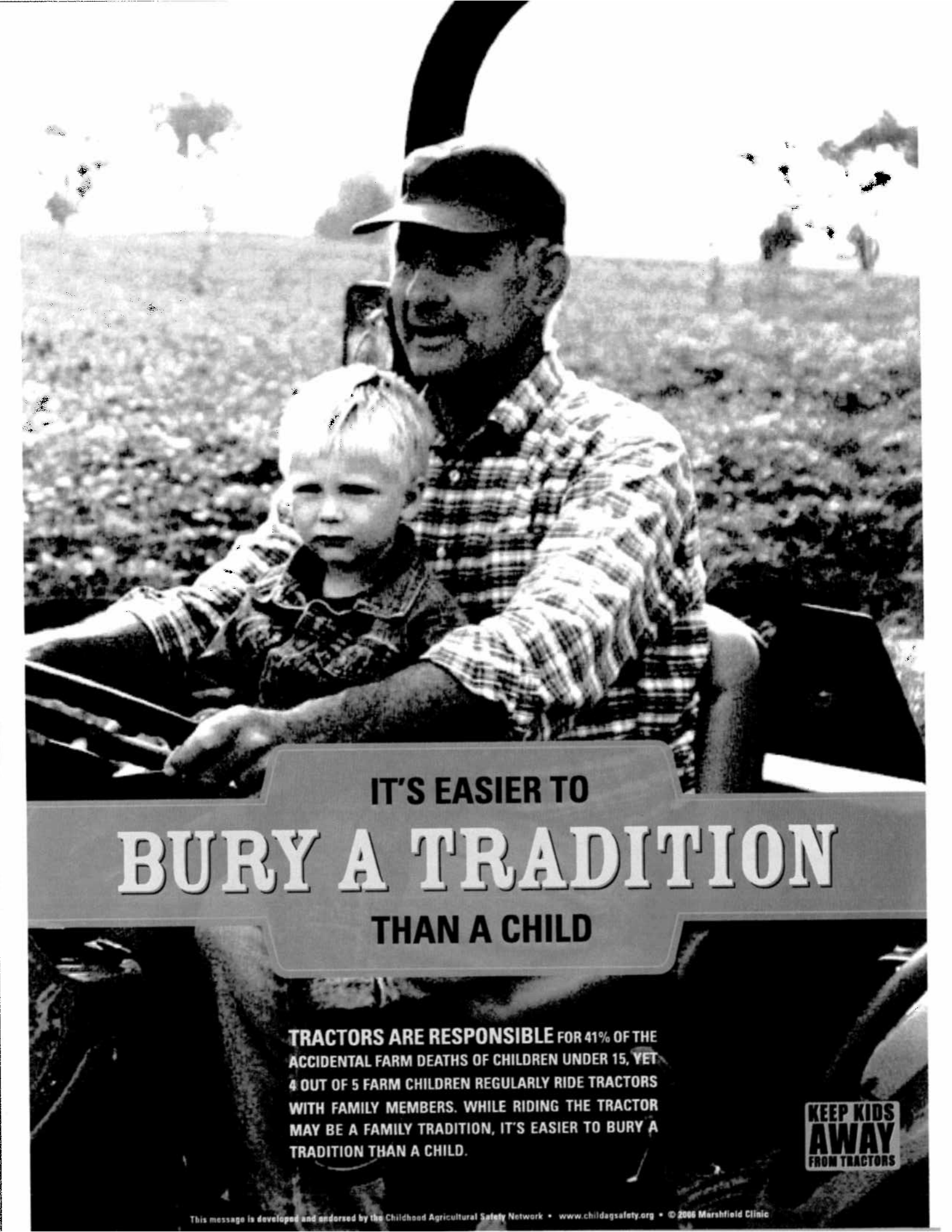
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**THE TRACTOR IS NOT THE PLACE FOR
QUALITY TIME.**

SPENDING TIME TOGETHER ON A TRACTOR IS EXTREMELY DANGEROUS. EVERY YEAR CHILDREN ARE NEEDLESSLY INJURED OR KILLED BECAUSE ADULTS ALLOW THEM ON OR NEAR TRACTORS. GIVE CHILDREN THE QUALITY TIME AND SAFETY THEY DESERVE. A TRACTOR'S WORK IS NOT CHILD'S PLAY.

**KEEP KIDS
AWAY
FROM TRACTORS**



IT'S EASIER TO
BURY A TRADITION
THAN A CHILD

TRACTORS ARE RESPONSIBLE FOR 41% OF THE ACCIDENTAL FARM DEATHS OF CHILDREN UNDER 15, YET 4 OUT OF 5 FARM CHILDREN REGULARLY RIDE TRACTORS WITH FAMILY MEMBERS. WHILE RIDING THE TRACTOR MAY BE A FAMILY TRADITION, IT'S EASIER TO BURY A TRADITION THAN A CHILD.

**KEEP KIDS
AWAY
FROM TRACTORS**



**YOUR 75 LB. CHILD
HAS NO CHANCE AGAINST
YOUR 10,000 LB. TRACTOR**

**KEEP KIDS
AWAY
FROM TRACTORS**

This message is developed and endorsed by the Childhood Agricultural Safety Network
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Wisconsin Farm-Related Fatalities 1996-2005

Mark. A. Purschwitz¹ and Tammy M. Ellis¹, National Farm Medicine Center, Marshfield Clinic Research Foundation, Marshfield WI

According to published annual farm-related fatality summaries from the University of Wisconsin Center for Agricultural Safety and Health (WISCASH), 308 fatalities related to farm work or work site hazards occurred in Wisconsin in the 10-year period of 1996-2005, for an annual average of approximately 31 fatalities per year. This is a compilation of those 10 annual summaries.

The estimated Wisconsin farm fatality rate (number of fatalities per 100,000 workers) for the 10-year period was approximately 34, based on an estimated total of 894,000 worker-years in production agriculture in Wisconsin over the 10 year period, including farm operators, unpaid family labor, and hired workers, but excluding service workers hired through agricultural labor contractors. (Note: The estimated number of workers was the sum of the estimated number of workers for each of the 10 years as reported by WISCASH. For the years 1996-2001, WISCASH estimates were based on the quarterly totals reported by the National Agricultural Statistics Service [NASS]. Because NASS stopped collecting these data after 2001, WISCASH used linear regression to calculate estimates for the years 2002-2005 based on 1996-2001.)

Fatalities	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	Total
Number	35	41	29	26	32	29	24	37	25	30	308
Rate*	31	39	28	27	35	33	29	48	35	45	34

*** (per 100,000 workers)**

According to the National Safety Council, agriculture is consistently one of the two most hazardous industries in the U.S. (mining is the other), and had an estimated 7334 work deaths during 1996-2005 and a fatality rate of 29.2 deaths per 100,000 workers. This compares with 50,005 fatalities for all U.S. industries combined, with a death rate of 3.7 per 100,000.

Farm-Related Fatality Definition

Farm-related fatalities are defined as unintentional deaths resulting from injury or environmental factors involving farm work or hazards of the farm work site. Fatalities resulting from heart attacks, recreational activities, home-related activities, or most motor vehicle injuries, are not included in this definition.

Types of Farm-Related Fatalities

Incidents involving tractors or other farm machinery were the most common, accounting for almost two-thirds of the 308 fatalities (193 fatalities, 62.7% of the total). Farm tractors were involved in 113 (36.7%) of the 308 fatalities, while other farm machines were involved in 80 fatalities (26.0%). Animal-related incidents ranked third on the list, accounting for 37 fatalities (12.0%); falls accounted for 26 (8.4%); confined space (grain or feed bins, manure storages) accounted for 14 (4.5%); trucks/vehicles (non-tractor) accounted for four (1.3%); and the remaining 34 deaths (11.0%) were in the "Other" category. Examples of those incidents include electrocution, trench collapse, falling object, fire, drowning, etc.

Fatalities	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	Totals
Tractors	12	11	15	13	11	11	7	10	7	16	113
Farm Machines	11	10	8	7	12	5	7	12	5	3	80
Animals	3	7	1	1	6	1	2	5	7	4	37
Falls	4	6	1	0	0	5	0	4	3	3	26
Confined Spaces	2	2	2	1	0	1	2	0	2	2	14
Trucks/Vehicles	0	1	0	0	1	1	0	0	0	1	4
Other	3	4	2	4	2	5	6	6	1	1	34
Total	35	41	29	26	32	29	24	37	25	30	308

Farm Tractor-Related Fatalities

Of the 113 fatalities involving farm tractors, tractor rollovers (overturns) were the most common, accounting for 61 (54.0%) of the tractor fatalities. Runovers/falls (being run over by the tractor, and/or falling from it) accounted for 43 (38.0%) of the tractor fatalities. Other tractor fatalities totaled nine (8.0%); several examples of such incidents include being pinned beneath a tractor that fell from a jack or other support, being pinned against the top of a low door or low-hanging obstacle while backing up, or being struck in a roadway collision that did not involve a rollover or runover, etc.

Tractor	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	Total
Rollovers	6	8	7	8	5	3	5	5	6	8	61
Runovers/Falls	6	3	8	4	5	7	0	4	1	5	43
Other	0	0	0	1	1	1	2	1	0	3	9
Total	12	11	15	13	11	11	7	10	7	16	113

Machine-Related Fatalities

Of the 80 fatalities involving farm machines other than tractors, incidents involving being pinned or entangled were the most common, accounting for nearly two-thirds of such deaths (52 fatalities, 65.0%). Being pinned by the machine accounted for 27 (33.8%), and entanglements 25 (31.2%), of the machine-related fatalities. Thirteen fatalities (16.2%) involved being run over by the machine, and 15 fatalities (18.8%) involved a variety of other incidents.

Machines	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	Totals
Pinned	3	4	3	2	4	3	2	4	0	2	27
Entanglement	7	5	3	3	2	0	2	2	1	0	25
Runovers	1	0	2	2	2	1	2	2	1	0	13
Other	0	1	0	0	4	1	1	4	3	1	15
Total	11	10	8	7	12	5	7	12	5	3	80

Animal-Related Fatalities

Animals were involved 37 (12.0%) of fatalities. Although type of animal was not always reported, attacks by bulls were the most common incident mentioned. Other animals reported included cows, heifers, and horses (non-recreational use).

Month of Occurrence

The month of occurrence is defined as the month when the injury occurred. Most farm-related fatalities involve death in seconds, minutes, or hours, but in some cases the time between injury and death may be longer.

Months with the greatest number of farm-related fatalities were those with the most field activity. Harvest in Wisconsin generally begins with hay baling or haylage chopping in June, running through the summer, with grain crops harvested in the fall. Peak months for fatalities generally corresponded with harvest months. Spring months involving land preparation and planting were similar.

Month	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	Totals
January	2	2	2	0	2	1	0	3	0	3	15
February	2	1	0	2	0	1	0	1	0	3	10
March	2	7	2	2	0	2	1	1	1	4	22
April	2	4	2	1	3	5	0	4	6	1	28
May	4	2	1	2	8	4	2	2	1	4	30
June	0	2	4	10	4	2	1	5	1	3	32
July	7	7	3	4	0	2	1	2	2	5	33
August	4	3	1	2	3	4	4	3	2	0	26
September	3	3	8	2	3	3	3	1	4	1	31
October	4	4	3	1	3	3	4	6	6	4	38
November	3	3	1	0	4	1	4	6	1	1	24
December	2	3	2	0	2	1	4	3	1	1	19

County of Occurrence

Farm-related fatalities were reported in 65 of Wisconsin's 72 counties. Some northern counties have little if any agriculture. Generally the fatalities were distributed widely across the state and many counties had several years without any fatalities. Counties with the highest numbers of fatalities tended to be counties known to have large numbers of farms or dairy herds, but this was not always the case.

County	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	Totals
Adams			1	1							2
Ashland	1										1
Barron					3				1		4
Bayfield								1			1
Brown			2	1	2			1			6
Buffalo	1		1	1	2	2	3				10
Burnett										2	2
Calumet					1	1					2
Chippewa	1	1		1	1					1	5
Clark		1		1	1		4	5	1	1	14
Columbia		1			1		1		2		5
Crawford					1		1	1		1	4
Dane	2	1	1		1			1		1	7
Dodge	1		1	1		1		1	1		6
Door		3		1	1	1					6
Douglas	1		1								2
Dunn	1	3		2	1	1		1		1	10
Eau Claire	2		1				1				4
Florence									1		1
Fond du Lac	1			1	1	1		2	1		7
Grant	1	1		2	1	3				2	10
Green	2	2	1			1		1	1	1	9

Wisconsin Farm-Related Fatalities, 1996-2005

County	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	Totals
Green Lake	1	1			1						3
Iowa		2					1			1	4
Jackson	1	1		1				1			4
Jefferson		1		1	1	1	1	3			8
Juneau					1			1		1	3
Kenosha			1							1	2
Kewaunee		1			1		2		1	2	7
La Crosse			1						2	2	5
Lafayette		2	1		2		2	1		1	9
Lincoln		1		1							2
Manitowoc	1		1		2			3		1	8
Marathon	1	3	2	1	1				2		10
Marinette				1		1		1			3
Marquette				1		1					2
Milwaukee										1	1
Monroe	1			1	1	1			3		7
Oconto	2		1	1						1	5
Outagamie	2	1				1	1				5
Ozaukee		1									1
Pepin			1					1	2		4
Pierce	1	1		1							3
Polk		2									2
Portage			1	1		1		1	1		5
Price	2								1		3
Racine								1		1	2
Richland	1				2	2		1		1	7
Rock		1				1	1	1			4
Rusk							1				1

County	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	Totals
St. Croix	2					1		1	1		5
Sauk			2	3		1	1	1		1	9
Sawyer					2						2
Shawano	1		2	1		1		1	1		7
Sheboygan		2									2
Taylor							1	1		1	3
Trempealeau		3				3	1				7
Vernon	3	1	1		1	1		2	1	1	11
Walworth	1		1								2
Washington						1	1				2
Waukesha			1						1		2
Waupaca	1		1							3	5
Waushara		2	1			1					4
Winnebago			1				1			1	3
Wood		2	1					1	1		5

Age of Victims

Age distribution of victims was done using standard National Safety Council age categories, with additional subdivisions for victims below age 25. The ages tend to be biased toward the extremes, either old or young, with fewer fatalities in the middle age categories. Almost a third of the victims (95 fatalities, 30.8%) were age 65 and older, and almost a fifth of the victims (57 fatalities, 18.5%) were age 19 or younger. In fact, almost a tenth of the victims (30 fatalities, 9.7%) were children under the age of 10.

Age	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	Total
0 - 4	2	3	2	2	2	3	2	1	2	1	20
5 - 9	4	1	1	0	1	0	0	0	1	2	10
10 -14	0	2	1	2	1	0	4	4	0	0	14
15 -19	3	0	4	2	1	0	0	2	1	0	13
20 -24	0	1	0	2	0	0	1	0	2	2	8
25 -44	4	12	5	3	1	6	4	5	3	3	46
45 -64	14	10	8	9	14	10	7	12	11	7	102
65+	8	12	8	6	12	10	6	13	5	15	95
Total	35	41	29	26	32	29	24	37	25	30	308

Gender of Victims

Gender distribution clearly reflected the relatively greater number of workers who were male, as 93.8% of victims were male and only 6.2% of victims were female.

Gender	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	Totals
Female	2	4	1	1	1	1	0	3	3	3	19
Male	33	37	28	25	31	28	24	34	22	27	289

Data Sources

Annual farm-related fatality summaries published by the University of Wisconsin Center for Agricultural Safety and Health, as accessed from the Center’s website: <http://www.wiscash.uwex.edu/Index.htm>

Annual editions of the National Safety Council *Injury Facts*

Funding

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Agritourism

Health and Safety Guidelines for Children



National Children's Center
for Rural and Agricultural Health and Safety



Disclaimer

This document is intended to provide useful recommendations for protecting the health and safety of children visiting farms involved in agritourism. The National Children's Center for Rural and Agricultural Health and Safety make no claims that these guidelines will prevent all illness and injuries. Every farm is unique and therefore the users of this document are encouraged to adapt the information to their situation knowing they are responsible for the health and safety of children visiting their farms. The National Children's Center for Rural and Agricultural Health and Safety, the authors and advisors can not be held responsible for adverse events resulting from following or not following the recommendations in this document.

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Introduction

Purpose and Intended Audience

Recommendations in this guideline document were developed to give family farm owners the information necessary to reduce the risk of illness and injury to children visiting their farm, while at the same time providing an enjoyable and educational experience. They were written specifically for owners of family farms who may operate an agritourism operation in addition to regular farming activities, as well as for farmers who may host a one-time event such as a tour for schools and other youth groups. The guidelines are also appropriate for larger, long-term agritourism attractions.

Background and Scope

Agritourism can cover a wide range of scenarios including, but not limited to, corn mazes, "pick your own" fruit and vegetable crops, educational tours for school children, farm-based festivals and country markets and stores. Regardless of the reason for children being on the farm it is the responsibility of the farm owner to control hazards that may risk the health and safety of children and other guests. The health and safety guidelines in this publication pertain specifically to children. These guidelines are written with the assumption that supervising adults are responsible for the health and safety of children. In 2001 there were more than 26,000 injuries to children who lived, worked or visited a farm operation¹. More than 100 children die of agricultural injuries on U.S. farms and ranches annually². By implementing these guidelines, farm owners can reduce the safety and health hazards that harm thousands of children every year. It is the responsibility of farm owners to identify the health and safety hazards on the farm and apply the recommendations to their specific situations. Each farm is different, with its own unique hazards, and therefore there may be hazards present on farms that are not covered in this document. It is recommended that farm owners take the key concepts and recommendations from this document and evaluate health and safety hazards on their farm. They should develop a checklist and document the hazards, indicating any actions taken to reduce the risk of illness or injury (See Table 1).

Agritourism includes any attraction where the general public is invited to the farm, ranch or any other agricultural, horticultural or agribusiness operation for the purpose of enjoyment, education or active involvement in farm activities.

Remember, when operating an agritourism enterprise, you are inviting the general public into an environment that contains numerous health and safety hazards. Individuals not familiar with farming may not be aware of hazards that you consider obvious.

For additional information on reducing health and safety hazards, or assistance identifying hazards at the agritourism attraction, contact the local county extension agency.

1. USDA- National Agricultural Statistics Service (2002). 2001 Childhood Agricultural-related Injuries. Available at <http://jan.mannlib.cornell.edu/reports/nassr/other/injury/injr0104.pdf>
2. Rivara, F. (1997). Fatal and non-fatal farm injuries to children and adolescents in the United States, 1990-3. Injury Prevention, 3(3), 190-194.

Table 1: Sample inspection and repair checklist

Item	Yes	No
1. Has a method for communicating safety information to children and other guests as well as employees, family members and volunteers been established?		
2. Is the farm ready to handle vehicle traffic safely?		
3. Are all necessary safety barriers in place and storage areas secure?		
4. Is the equipment and machinery ready to be displayed safely?		
5. Do all ponds, water sources and manure pits on the farm have proper barriers, warning signs and the necessary equipment available in case of a water emergency?		
6. Are fire extinguishers present throughout the farm, and has the local fire department been made aware of the fire safety plan?		
7. Have attractive nuisances been identified and eliminated?		
8. Have steps been taken to ensure the safety of food prepared or consumed on the farm?		
9. Are there adequate restroom facilities and properly stocked hand washing facilities?		
10. Has an emergency response plan been prepared and practiced?		
11. Is the farm prepared to handle visitors during inclement weather?		
12. Is a NOAA weather radio present and operational?		
13. Are farm animals and animal holding areas ready for safe viewing by children?		
14. Are animals that will be in direct contact with children should be clean and properly vaccinated?		
15. Do all family members, employees and volunteers at the operation have cell phones, walkie-talkies or other methods of communication?		
16. Are the parking area, all paths, all buildings, restrooms and attractions accessible to individuals with disabilities?		
17. Are employees, volunteers and family members trained in basic first-aid and CPR?		

This checklist is meant to be a sample and is not all-inclusive. Each agritourism operation may have unique characteristics that are not addressed in this sample.

Child Development and Safety Strategies

Visiting an agritourism attraction can be very exciting and educational for children. Children are there to learn and have fun and most likely are not aware of the dangers present. Children are naturally curious and perceive the farm as a big playground. Therefore, it is important to talk to children about safety when they are visiting. Keep in mind that children are unpredictable and may not follow safety instructions. The responsibility for children's safety is up to adults and some adults have unrealistic expectations of children's understanding of hazardous situations. Also remember that adults may not realize the risks associated with agricultural operations. Table 2 contains information on the developmental abilities of children and adolescents and includes general safety strategies based on age and developmental characteristics.

Table 2. Child development and appropriate safety strategies

	Developmental Characteristics	Safety Strategies
2 years old and under	<ul style="list-style-type: none"> • Able to walk • Experiments by touching, smelling and tasting • Enjoys simple pretend play • Explores and gets into everything • Cannot sit still for more than a few minutes • No sense of danger 	<ul style="list-style-type: none"> • Provide constant supervision • Do not assume children can be completely controlled • Avoid uneven or slippery surfaces • Keep away from moving machinery • Lock up or place chemicals and sharp objects out of reach
3 to 5 years old	<ul style="list-style-type: none"> • Energetic • Can jump over objects 5 to 6 inches high • Can solve problems if simple and concrete • Will play alone or with others • Enjoys mimicking adults • Has illogical or imaginative thinking • Is attracted to adult farm activities 	<ul style="list-style-type: none"> • Provide constant supervision • Requires a physical barrier between work areas • Watch for tripping hazards • Store ladders out of sight and reach • Block off or remove ladders on buildings such as silos and grain bins
6 to 8 years old	<ul style="list-style-type: none"> • Poor hand-eye coordination • Seeks parental approval • Operates with concrete facts • Unable to have abstract thought • Enjoys quiet activities • Curious about how things work • Short attention span, likely to remain active • Will attempt adult activities to impress parents 	<ul style="list-style-type: none"> • Provide constant supervision • Set rules and discuss safe behavior • Talk openly about types of injuries and consequences
9 to 10 years old	<ul style="list-style-type: none"> • Has good coordination skills, but will have awkward moments • Desires peer and social acceptance • Desires to be independent from adults, will attempt to do activities without them • Successes are important • Improvements in reaction time • Specialized motor skills have developed • Body strength and dexterity increase • Does not fully understand consequences • Risk taker 	<ul style="list-style-type: none"> • Provide periodic supervision • Set simple rules with consistent consequences

11 to 13 years old	<ul style="list-style-type: none"> • Growing at a steady rate • Small muscles are developing rapidly • Has same coordination as adults but lapses of awkwardness are common • Has increasing physical and mental skills • Desires peer and social acceptance • Wishes to try new skills without constant adult supervision • Signs of independence emerging • Success important for self-concept 	<ul style="list-style-type: none"> • Provide periodic supervision • Set clear and consistent rules, discuss consequences and rewards • Provide specific education on farm hazard prevention
14 to 16 years old	<ul style="list-style-type: none"> • Growing rapidly and physically changing • Has moved from concrete thinking to abstract; enjoys mental activity • Can find solutions to own problems but still needs adult guidance • Feels need to be accepted by peers • Resists adult authority • Rebellious, risk-taking, mood swings and aggressiveness are typical behaviors • Feels immortal • Needs independence and identity 	<ul style="list-style-type: none"> • Provide periodic supervision • Be consistent with rules • Provide safety education using specific examples of injuries
17 to 18 years old	<ul style="list-style-type: none"> • Awkwardness overcome, mastery of small and large muscles basically complete • Knows abilities, becoming independent person • Feels immortal • May act like child one day, adult the next • Rebelliousness, risk-taking, aggressiveness typical behaviors • Consistent treatment from adults important • Need independence and identity • Has increased sense of adult responsibilities, thinking of future 	<ul style="list-style-type: none"> • Provide rules and allow open communication • Encourage/Ask to serve role model for teaching younger children about farm safety • Provide safety education and remind of serious and real consequences of risk-taking

Concepts referenced from:

Fisher, RM and Lee, BC (2006). *Interactive Demonstrations of Safe Play Areas*. Marshfield, WI: Marshfield Clinic

Murphy, D and Hackett, K (1997). *Children and Safety on the Farm*. University Park, PA: Pennsylvania State University

Liability

Inviting the public onto a farm site results in some degree of liability. Implementation of these guidelines is not intended to absolve the farm owner of the responsibility for the health and safety of guests and their children. They are, however, intended to reduce the risk of a guest being injured and demonstrate a "good faith" effort to protect guests. To learn more about liability insurance and to ensure your agritourism operation has adequate coverage, consult an insurance agent and/or an attorney who is familiar with this type of activity. It would also be advantageous to contact and inform neighbors about plans to operate an agritourism operation, or if a large group of people will be visiting the farm.

Employee, Volunteer and Family Training

This document's key points about children's health and safety must be conveyed to family members, employees and/or volunteers involved in the agritourism operation. To start, the farm owner should develop a safety policy for the operation. The policy states what the goals of the operation are in regards to safety. The farm owner, employees, volunteers and family members should then work together to develop a plan to meet this policy using relevant points from this document.

It is important that family members, employees and volunteers working at the operation know how to do their jobs safely. Train and review safety points with all new employees, volunteers and family members when they begin working at the agritourism site. An effective strategy for teaching children to be safe is to have all employees, volunteers and family members display safe practices at all times, as kids will repeat what they see adults doing.



Pre-Event Health and Safety Recommendations

Farmers and agritourism operators are encouraged to do a site walk-through on their own or with family members, employees or volunteer involved prior to each day or as often as feasible to identify any missed safety hazards that children may encounter.

Health and Safety Information for Guests

Many of the children and guests that will visit an agritourism operation may have little or no experience with agriculture and the rural environment. It is important that both the adults and the children visiting the farm understand the hazards in this environment. This may be difficult. Long-term agritourism operations that are open to the public without an appointment will have guests and children arriving throughout the day making it more challenging to thoroughly convey safety information. Family farms entertaining a group for a single event may be fortunate enough to have advanced notice and will therefore have the opportunity to convey health and safety information before the group arrives. The following recommendations can be helpful in communicating health and safety information.



Recommendations for communicating health and safety information

- Take a few minutes when guests arrive to explain the hazards that can be found around the farm. Have the rules posted.
- Inform guests and children about rules and any hazards at specific attractions such as corn mazes and hayrides. Explain how these rules will keep them safe.
- Place signs with short safety messages in and around areas where hazards are present. Include "In Case of Emergency" signs around the farm that have the exact location of the farm.
- Inform guests of the location of all restrooms and hand-washing stations on the farm.
- Provide detailed health and safety information in advance of pre-arranged visits. Visiting groups should be given documentation explaining hazards that can be found on the farm and rules that the adults and children will be expected to follow. This document should also include information such as:
 - Required child-to-chaperone ratio (see supervision responsibilities on page 23)
 - Proper attire such as shoes instead of sandals, long pants (depending on activity), no loose strings, frays, sleeves, etc.
 - Reminders about what to bring such as water, insect repellent and sunscreen
 - Reminders about what not to bring such as pets, alcohol and devices with open flames such as lighters, lanterns and portable grills.



Traffic and Pedestrian Safety

The long distances between destinations in the rural environment make it necessary for guests to drive to the attractions. As a result, traffic will most likely be encountered at all agritourism operations. The combination of children and traffic in one location makes this an important issue to address. The overall recommendation is to keep children away from traffic areas.

Traffic and Pedestrian Safety Recommendations

- Large, easy-to-read signs should be located about a half mile from the farm entrance in each direction on the road. This will alert drivers going to the farm and indicate to other traffic to be aware of stopped or turning vehicles. Clearly mark the entrance to the farm or attraction. Make sure that the entrance has adequate lighting and is wide enough to accommodate school buses and other large vehicles.
- Make sure that the parking area is easily identifiable and away from areas where children may be present. Have adequate parking for the number of expected vehicles. Guests should not be allowed to park on the public road. Not only is it illegal to park on most paved county roads, but it also reduces the visibility for other drivers. If a large group is coming consider having someone direct traffic to the parking area. Anyone directing traffic on the farm should be wearing a reflective or brightly colored (orange/yellow/green) vest. Traffic flow in one direction is best. If possible, have a separate entrance and exit onto and out of the property.
- The driveway to the parking area should be well maintained, properly graded and well lit.
- If the farm or attraction is hosting a large event chances are there will not be a gravel lot large enough to handle all vehicles. Most often parking in grassy areas or in a pasture near the site is the best option. Parking areas should be mowed, free of steep grades and trip hazards removed as best as possible. Have an alternate parking plan in case of rain or mud.
- If the parking area is far from the farm attractions, have a site where cars and busses can drop-off and pick-up children.
- Post a speed limit on-site. Even though it will not be enforceable, a posted speed limit will remind drivers to slow down. In addition to a speed limit, post signs indicating that children are present. Many of these signs are available over the Internet or from your local hardware store.

Surfaces, Barriers and Storage Areas

Surfaces

An important aspect of preparing the farm site for agritourism is to ensure that children and all other guests have a clear, level, and unobstructed surface for exploring the site. Whether you have pathways to guide guests from one attraction to the next, or if you allow guests to freely roam around the farm, there are several recommendations that can reduce the risk of trips, falls and potential injury.

Surfacing Recommendations

- Areas of the farm where guests will be present should be properly drained. Fill in small depressions where water may pool to prevent the formation of puddles.
- Minimize the use of steps and stairs. If stairs are needed, make sure they have handrails.
- If walkways are used, make sure they are smooth and level. Avoid steep grades. If one of the purposes of a walkway is to guide guests from one attraction to the next, make sure they are easily identifiable with appropriate signage.
- Special consideration should be made for children and guests with disabilities. Make sure the walkways and the surfaces around the farm are smooth and wide enough to accommodate wheelchairs and scooters. Check to see if your operation needs to comply with the Americans with Disabilities Act (ADA). Information on the ADA can be found on the Department of Justice Website at www.usdoj.gov/crt/ada/adahom1.htm.

Barriers

The use of barriers is important to prevent children and guests from entering non-permitted areas, and/or from coming into contact with hazardous machinery, animals, etc. For the purpose of this document barriers mostly refer to fencing. However, there are many situations where a barrier is intended for crowd control, rather than a separation from a hazardous area. In those situations, choose barriers that are appropriate and will not create additional hazards. The following factors should be considered:

Barrier Recommendations

- Identify all areas on the farm where fencing would make an effective barrier, such as around ponds, near operating equipment, in front of animals and near parking areas.
- Determine the type of barrier or fencing that will be effective for the given area. See Table 3 for fencing guidelines specific to children.



- ❑ Fencing intended to be a physical barrier to prevent children and guests from entering non-permitted areas should be at least 4 ft high, go all the way to the ground to prevent children from crawling under and designed so children can not climb over.
- ❑ Barbed wire, smooth wire and woven wire fencing should be avoided, as their purpose is to contain animals and may pose a risk of injury to children. Turn off all electric fences when children are on the farm and be sure they are easily identifiable with warning signs. If electric fences located on the farm are not necessary have them taken down.
- ❑ Keep in mind the importance of gates and latches. Be sure they are able to withstand weather, as well as possible misuse by children. Latching mechanisms should not be accessible to younger children.

Storage Areas

Secure storage areas are important when children are present on the farm. Secure storage is one way to ensure that items such as farm equipment, tools and chemicals, which are necessary for the operation of a farm, do not become a safety hazard for children. Each individual farm owner should identify all hazardous items that must be securely stored out of the reach of children.

Storage Area Recommendations

- ❑ Chemicals such as fertilizers, pesticides, fuels and pharmaceuticals need to be kept in a locked storage area that is cool and dry and has proper ventilation.
- ❑ All hand tools and power tools need to be stored in an area that can be locked to prevent access by children.
- ❑ All storage areas such as barns, sheds and grain bins need to be locked when children are on the farm unless the area is part of the agritourism operation, and has been purged of hazardous items and is under constant supervision by adults.



Table 3: Fencing Guidelines and Recommendations

Recommended Fencing	
Type of Fencing	Attributes and Concerns
Mesh	Can be fitted to existing fence Mesh can unravel leading to ineffectiveness Attach mesh to railing to prevent sagging
Panel	Challenging to climb Some models do not allow for visual supervision from outside
Privacy	Challenging to climb Difficult to visually supervise from outside
Wrought Iron	Challenging to climb Space between vertical members must be less than 3 inches Avoid models with spikes – can cause puncture wounds
Cautionary Fencing	
Type of Fencing	Attributes and Concerns
Hedge	Must be thick enough to achieve boundaries Sharp twigs – can cause puncture wounds Requires weekly inspection for sharp twigs and holes in barrier Only use varieties without thorns
Galvanized Net	Larger grades easily climbed – can cause head injury Sharp points – can cause puncture wounds and scrapes
Chicken Wire	Wire uncomfortable for fingers and toes Sharp ends – can cause puncture wounds Requires monthly inspection for sharp edges
Plastic Snow Fence	Bendable – can cause entanglement Fence can be easily knocked down Children can easily crawl beneath fence Deteriorates – need for replacement yearly
Non-Recommended Fencing	
Type of Fencing	Attributes and Concerns
Split Rail	Easily climbed – can cause head injury Easily crawled through Spacing of horizontal members – could cause head entrapment
Welded Wire	Easily climbed – can cause head injury Bendable – can cause entanglement
Picket Garden	Easily climbed – can cause head and neck injury and puncture wounds Easily climbed – can cause head injury Bendable – can cause entrapment

Concepts referenced from:

Fisher, RM and Lee, BC (2006). *Interactive Demonstrations of Safe Play Areas*. Marshfield, WI: Marshfield Clinic

Machinery Safety

From an occupational perspective, working with machinery is one of the most hazardous tasks that farmers and farm workers do. Moving parts can cause pinching and crushing injuries. Entanglements in drive belts and PTOs can cause severe injury and even death, and loud noises produced by farm machinery can cause hearing loss. For purposes of this document, any mechanical device used on the farm should be considered farm machinery. This includes, but is not limited to, power tools, farm implements and tractors. From the standpoint of children, tractors and similar equipment such as combines, grain carts and trucks often arouse the most interest. The following recommendations will reduce the likelihood of children being injured or killed by machinery located on the agritourism site.

Machinery Safety Recommendations

- Keep children away from farm machinery. Machinery should be out of sight and in proper storage areas that are locked at all times.
- If possible, do not operate farm machinery when children and other guests are on the farm.
- If machinery is required to be in operation when children are present, make sure that it is attended at all times. If any machinery will be operating unattended, it needs to be in proper working condition and inaccessible to children. Proper barriers should be installed around operating and non-operating equipment. Do not allow children or other guests to operate equipment.

There are some situations where the display of farm machinery, specifically tractors, combines and other implements, is an integral part of the agritourism operation. Machinery is part of modern farming, and for many people visiting a farm, viewing this equipment up close is part of the experience. It is up to each farm owner to determine whether or not to allow children an up-close look at farm machinery. Be aware that if children are allowed to climb onto equipment, the risk for injury is greatly increased. For those situations where access to farm machinery is permitted, the following guidelines should be in place, in addition to those previously mentioned.



Machine Display and Demonstration Recommendations

- Make sure it is not possible for children and guests to activate any mechanical part of the equipment.
- Tractors, combines and other vehicles should be parked on a level surface. Secure the equipment using the parking brake and wheel blocks. The loaders on all tractors so equipped should be lowered to the ground. All attachments to the 3 point hitch should be lowered to the ground. All other front end loaders and all implements should also be lowered to the ground. The keys should never be left in the machinery.
- Limit children and guests to ladders and steps if accessing the cab. Under no circumstances should anyone be allowed to climb on other parts of the equipment.
- Cover sharp or protruding edges, tighten loose screws and repair broken railings and steps.
- Children climbing onto equipment should be supervised by someone from the farm who is familiar with the equipment. Do not assume that parents or chaperones can provide adequate supervision around farm equipment.
- If demonstrating the operation of equipment, keep children at least 20 feet away and behind an adequate barrier.
- Never operate or demonstrate any equipment that can eject or throw objects when guests are present. This includes lawn mowers and brush cutters.
- Do not allow children or other guests to climb on equipment while it is in operation.



Animal Safety

Animals on the farm can be more dangerous than machinery. Animals are unpredictable. That is why it is important to make sure that children are kept away from large animals. Injuries commonly caused by animals include being stepped on, pushed over, pinned between the animal and a hard surface, kicked and bitten. The following recommendations apply specifically to injuries caused by animals. Later in these guidelines we will discuss the health hazards associated with animal contact.

Animal Safety Recommendations

- Large animals (cows and horses) should not be brought out of stalls for viewing. It is impossible for a person to control a large animal. If the animal becomes startled while in the open it could trample those in the area.
- Make sure the fencing or barrier between the animals and children is adequate and that children can not climb over or under it (see Table 3).
- If using horses to pull hayrides or sleighs, harness and hitch the horses before loading the hay wagon.
- Double fencing should be used to prevent children from reaching animals that have a tendency to bite.
- Do not allow children and guests to pet animals that have a tendency to bite. When choosing animals for petting, make sure they are healthy and docile in nature. Petting of reptiles or wild animals should never be allowed.
- If displaying animals for petting purposes they should be appropriate for young children. A calf may be small to you, but enormous to a toddler.
- Farm pets, such as dogs, should be tied up or kenneled and physically separated from the visiting children. Never assume that your pet will not bite someone.



Ponds and Water Hazards

A variety of water hazards can be found on farms. Some are natural features of the landscape such as ponds, streams, lakes and rivers, while others are artificial features built to prevent erosion, control flooding or used for recreation. If the farm or nearby land contains any of these water hazards, it is important to take steps to reduce the risk of drowning. Ponds or natural waterways, such as lakes or streams, should be off limits. Keep in mind that water attracts young children, and if a pond or natural waterway is located on the property, drowning is possible.

Pond and Water Safety Recommendations

- Inform all guests that the water is off limits.
- Instruct all parents and chaperones of the dangers associated with ponds. Ask that they maintain direct eye contact with the children for which they are responsible.
- If possible enclose the area around the water with a fence or barrier that has a self-closing, self-latching gate that can be locked. (See Table 3)
- Place warning signs near the water.
- Have rescue equipment (buoy, rope, pole) readily available.
- General water safety, basic water rescue techniques, first-aid and CPR should be known by the farm owner, any family members involved in the operation and any employees or volunteers.



Fire Safety

Structure fires as well as wildfires are a concern for agritourism operations. Many things found on the farm can cause a fire. These include open flames (candles, matches and cigarettes), static electricity, sparks, bonfires, burn barrels, machinery, welding equipment, lightning and even spontaneous combustion from wet hay, paints and other chemicals. The presence of children in this environment further underscores the importance of fire safety for agritourism operations. Children's curiosity and fascination with fire puts them and others at risk. Questions about fire safety should be reviewed with the local fire department or the office of the state fire marshal. The following guidelines should be a part of all fire safety plans.

Fire Safety Recommendations

- All agritourism operations should have a written fire safety plan. Because each operation is different, each fire safety plan will be unique.
- Make sure children are closely supervised. In the event of a fire, adults must ensure all children are accounted for.
- Inform children of the dangers of fires and instruct them in safe behavior to prevent fires while on the farm.
- Instruct children and other guests on what to do in the event of a fire.
- Do not permit smoking in the farm site.
- Have the appropriate fire extinguishers available and located throughout the farm site. For most agritourism operations and farm sites a combination ABC rated fire extinguisher with a minimum size rating of 5 - 10 will meet your requirements. See Table 4 for additional information on choosing a fire extinguisher.
- Any buildings where children and guests will be present should have working smoke detectors.



- Buildings should have clearly marked exit signs and all exits should be clear of obstacles that could hinder escape.
- Have an evacuation plan for all outdoor venues that may be susceptible to wildfire or grassfires.
- Remove brush and vegetation from around buildings and other structures. Pay special attention to areas where dead or dry plant material may accumulate.
- Remove excessive dust, cobwebs and other potential combustible material from all buildings where children and guests may be present.
- Do not store fuel inside buildings and do not refuel vehicles while they are indoors.
- Properly dry all hay that will be placed in a barn or other structure.
- Remove brush and mow fields that will be used for parking.
- Never carry out field burning or prescribed burns when children and guests are present at the farm.
- Share your safety plan with the local fire department. Provide them with the hours of your operation, your exact location and the site of each attraction (a detailed map is best), as well as the average number of guests present per day. Make the fire crew's job easier by making sure they can access all areas of your farm with their equipment.

Table 4: Fire classes and the subsequent appropriate fire extinguisher

Class	Description	Appropriate Fire Extinguisher
A	Ordinary combustible materials such as wood, paper, textiles, etc.	A fire extinguisher labeled with the letter A or ABC
B	Flammable and combustible liquids such as gasoline, oils, fats, etc.	A fire extinguisher labeled with the letter B or ABC
C	Energized electrical equipment such as electrical wiring, motors, appliances, etc.	A fire extinguisher labeled with the letter C or ABC
D	Combustible metals such as magnesium, potassium, etc.	A fire extinguisher labeled with the letter D
K	Vegetable oils, animal oils in cooking appliances.	A fire extinguisher labeled with the letter K

Concepts referenced from:
Farm Safety Association (2006). *Agricultural Fire Safety*. Guelph, Ontario Canada

Attractive Nuisances

An attractive nuisance is a place or object on the farm that unintentionally attracts children. Ponds, open pits, manure storage areas, stacked hay bales, unsecured ladders, grain bins, farm tools and equipment can all be considered attractive nuisances³. Some attractive nuisances are addressed specifically in these guidelines, such as ponds and machinery. However, most attractive nuisances are less obvious, and steps should be taken to reduce the likelihood of a child being injured or killed. For additional information on attractive nuisances see "Landowner Liability for Trespassing Children: Ohio's New Attractive Nuisance Doctrine" at <http://ohioline.osu.edu/als-fact/1007.html> and "Recreational Use of Private Lands: Associated Legal Issues and Concerns" at www.nationalaglawcenter.org/assets/articles/mceowen_recreationaluse.pdf.

Attractive Nuisance Recommendations

- Assess all structures or objects that may pose a risk to children. Keep in mind that children see the world from a lower height than adults, so make sure to pay special attention to objects that are noticeable from their level.
- Determine the likelihood that a child would be able to gain access to the area where an attractive nuisance is located. Would it be easily noticed by children? Is it easy to access the area? Is it an isolated area with no adult supervision? When children are present at the site, regularly monitor those areas.
- Eliminate the attractive nuisance or prevent children from accessing the area. Secure or lock all gates and doors to prevent access, remove ladders or other objects that children would be likely to climb and remove or safely secure tools and other equipment. Just because an area is designated off limits doesn't mean a child will not enter.

Definition

Attractive nuisances are something on a piece of property that attracts children but also endangers their safety. For example, unfenced swimming pools, open pits, farm equipment and abandoned refrigerators have all qualified as attractive nuisances.



3. OSU Extension Fact Sheet. Landowner Liability for trespassing children: Ohio's new attractive nuisance doctrine. ALS-1007-03. Available at <http://ohioline.osu.edu/als-fact/1007.html>

Pest Control

Depending on the geographical location, controlling insect and animal pests may be more for the comfort of guests than for their safety. However, some diseases like West Nile virus, Hantavirus, Rabies, and Lyme disease can be transmitted by contact with an insect or animal pest. Some animals may also be poisonous or physically dangerous.

Pest Control Recommendations

- Reduce insect pests by removing and draining any stagnant or standing water. Apply larvacide to water that can not be drained to prevent mosquitoes from reproducing. If using chemical pesticides, apply according to the manufacturer's directions. Only apply pesticides when guests are not present.
- Monitor area for insect nests such as bee hives and hornets' nests – remove immediately when children are not present.
- Eliminate any favorable habitats for undesirable wild animals that may be on the site. Keep the grass short and clear the brush in areas where children and guests are present. Keep children away from wood and rock piles. Instruct guests to report any sightings of wild animals or unwanted pests.



Food Safety

The serving of food may or may not be applicable to every agritourism operation. However, even if food service is not part of the operation, consumption of food is likely, especially if children are visiting for several hours. Therefore, steps to ensure food safety is important for operations that prepare and sell food, as well as for those that allow guests to bring picnic lunches and/or snacks. Proper storage and preparation of food, as well as suitable sanitation, will help to insure that the consumption of food on site will not lead to the development of foodborne illness among guests.

All food distributed or sold must be stored, prepared and served according to local health department rules and regulations. Laws and regulations associated with food service to the public may vary by location, so check with your local health department to determine which licenses and permits are required. Consider having all food service facilities, including concession stands, inspected by the health department regardless of permit requirements.

In addition to following all regulations, three general practices - personal hygiene, contamination prevention, and temperature control - can prevent most foodborne illnesses if applied properly⁴. Additional information on food safety can be found at the United States Department of Agriculture Food Safety and Inspection website at <http://www.fsis.usda.gov/> or from your local county extension agency.

Food Safety Recommendations

- Food servers must thoroughly wash their hands before handling and preparing food.
- Do not touch ready-to-serve food with bare hands, so have plastic gloves available.
- Wash, rinse, sanitize and air dry all utensils and preparation surfaces.
- Keep raw meat away from other food.
- Cook all food to proper temperatures.
- Cool hot food quickly before storing.
- Control pests, such as flies, in all food service and dining areas.



4. (2005) Food safety is everyone's business, your guide to preventing foodborne illness. (DOH Pub 332-036). Washington State Department of Health.

Hygiene and Restrooms

In addition to naturally occurring dust and dirt, farms may also have pathogens present that can lead to illness. Allergens in dust, animal dander and pollen may also be present. In most cases, exposure to dirt and microorganisms is of little concern (see "animal contact and petting zoo" section for additional information on potentially dangerous microorganisms). Still a few general guidelines may decrease health risks related to hygiene.

Hygiene and Restroom Recommendations

- Proper hand washing is important when visiting a farm site. Provide easily accessible hand-washing facilities for children. Warm running water with soap is best, but may not be practical for every situation.
- Make sure hand-washing stations are low enough for children to reach. When water is unavailable, have disposable cleansing wipes or hand sanitizers available. Instruct children to wash hands before consuming food, after petting/touching animals and before departure.
- There may also be a need for restrooms, depending on the size of your agritourism operation and the number of guests. If it is a small group on site for a few hours, the standard restroom facilities on the farm may be adequate. However, for long-term operations, or all day events with many people, portable restrooms should be brought in to handle the volume.



Health and Safety Recommendations During Events

Supervision Responsibilities

Proper supervision of children is imperative on the farm. But what is "proper supervision?" It is assumed that if an adult is "keeping an eye" on the children, then they are being supervised. This may not be the case, as the supervising adult may not be able to intervene in some situations that arise. When it comes to the supervision of children in the agritourism setting, providing the necessary information to parents and chaperones is the farm owner's responsibility.

Farm Owner Supervision Recommendations

- Children under 16 years of age should be accompanied by a parent or chaperone.
- When working with a group such as one sponsored by a school or club, ask about the number of children to expect, and make sure the group has an adequate chaperone-to-child ratio (See Table 5).
- Find out in advance if any of the children have special needs such as a disability or allergies and take steps to accommodate these needs especially in regards to safety.
- Contact the organizer of the group prior to their arrival and provide them with documentation of what to expect on their visit and inform them of the potential safety and health hazards. Provide the group organizer with a copy of an emergency action plan (see Incident and Emergency Response section). Include suggestions for proper attire and sanitation/hygiene needs.

Parent and Chaperone Supervision Recommendations

- Parents and chaperones should make sure that children follow all the rules of the operation.
- Parents and chaperones should understand the importance of enforcing health and safety guidelines.
- Parents and chaperones should be within eyesight of young children at all times.
- Chaperones should be responsible for supervising specific children.
- The farm owner, their family members or any employees and volunteers should speak with parents and chaperones' they feel are not providing adequate supervision.

Table 5. Recommended children to adult ratio for visiting farms

Age	Number of Children	Number of Adults
Under 5	2	1
5-8	3	1
9-12	5	1
13-17	10	1

Adapted from: National Park Service. <http://nps.gov/archive.mora/education/inparkprograms.html>

Incident and Emergency Response

Even if the farm owner implements every safety guideline in this document there is still the possibility of an injury event or emergency. It is important to plan for incidents and emergencies before they occur. Medical services, as well as fire and rescue, may be located far from the farm site. As a result, it will be necessary for the farm owner and/or someone in charge to respond until help arrives.

Incident and Emergency Response Recommendations

- Fire extinguisher and first-aid kits should be located in several locations on the farm. Locations should be clearly marked and available to everyone. First-aid kits should be inspected often and supplies should be replaced as needed.
- Have a written emergency response plan. This plan should be read and understood by all family members, employees and volunteers involved in the agritourism operation and available to all guests. Include important contact numbers, locations of first-aid kits and fire extinguishers and the assigned roles and responsibilities of the owner, family members, employees and volunteers.
- Children attending without parents or guardians need to have personal contact information available.
- Someone should be designated to be in charge of managing incidents and emergencies. For small farms handling a onetime tour or event, this most likely would be the farm owner. For larger, season-long operations, someone designated as "in charge" should be on site at all times.



- All family members, employees and volunteers involved in the agritourism operation should have a way to quickly and effectively communicate with each other where ever they are on the farm. All workers should have or be supplied with a cell phone or walkie-talkie.
- Someone trained in CPR and First-aid should be present during all hours open to the public. CPR and First-aid training are available from the American Red Cross and/or similar community organizations.
- All family members, employees and volunteers should be trained to respond to emergency incidents. For information on emergency response please see Penn State University's Farm Family Emergency Response Program at <http://www.farmemergencies.psu.edu/> and the Natural Resource, Agriculture and Engineering Service's NRAES-12 Manual "First on the Scene" at <http://www.nraes.org/publications/nraes12.html>.
- Designate a particular vehicle in case of specific emergencies. This vehicle should be easily identified and readily available. A decision should be made about who is authorized to operate this vehicle. Chaperones are always the first choice to transport an injured child. Anyone authorized to operate the vehicle should be given keys or told where they will be located. Emergency personnel should be called in cases of serious life-threatening emergencies.
- Only a parent can decide if a serious injury does not require emergency personnel.



Hazardous Weather

While some weather events such as rain and blustery winds can disrupt an agritourism operation, it is the hazardous weather events that are of most concern. Because the majority of agritourism events occur outdoors, be aware of changing weather conditions.

The following are general recommendations specific to the type of hazardous weather. Be advised these recommendations may need to be adapted to fit specific needs, and all possible hazardous weather events are not covered. Additional weather safety information can be found on the National Weather Service website at <http://www.nws.noaa.gov/safety.php>.

Severe Thunderstorms and Tornadoes

Heavy rain, flash floods, hail, lightning, strong winds and tornadoes can all be associated with thunderstorms. Thunderstorms can happen any time of year but are most common in spring and summer. The existence of multiple dangers and varying degrees of severity make thunderstorms particularly dangerous, therefore, be sure to follow these recommendations.

Thunderstorm and Tornado Recommendations

- Be aware of all hazardous weather watches and warnings. Do not rely on the sky to alert you to hazardous weather. Have a radio or NOAA weather radio available to receive the latest watches and warnings from The National Weather Service. If forecasts predict a high chance of hazardous weather consider postponing activities or having alternate activities that will reduce the likelihood of being caught in hazardous weather.
- Make sure guests know where to take cover from hazardous weather. Provide adequate shelter for the specific weather conditions. A shelter should have a capacity greater than the number of guests on the site at any given time. Instruct all guests, especially parents and chaperones, of hazardous weather procedures. In cases of a severe thunderstorm or tornado, have guests take cover in a sturdy structure. The best protection is a permanent building with a basement or a below-grade floor.
- Take special precaution for lightning. If you can hear thunder, then the risk of lightning exists. Lightning can strike well ahead of an oncoming storm, as far as 10 miles. Only totally enclosed structures provide adequate protection from lightning. Tents and similar covered structures do not provide sufficient protection. If a shelter is not available, have guests return to their cars or buses.
- If the property is prone to flash flooding have children and guests avoid low-lying areas during and immediately after storms.



Excessive Heat

In the summer months, agritourism operations should be prepared for extremely hot, humid weather. Children more readily absorb heat on hot days than adults and physically they are less able to dissipate it. Children may also not be aware of the symptoms of heat exhaustion and heat stroke, and need to be reminded to drink plenty of water⁵. The following recommendations may help to prevent heat exhaustion and heat stroke.

Excessive Heat Recommendations

- Be aware of the heat index, which is a combination of air temperature and relative humidity. If the heat index reaches 90°, heat exhaustion and heat stroke are possible.
- Know the signs and symptoms of heat exhaustion and heat stroke and keep an eye out for any children or guests exhibiting these symptoms.
- When the heat index is high, reschedule strenuous activities to early morning or evening.
- Make sure to have areas where children and guests can go for relief from the heat. An air conditioned room is best, but shaded areas will help. If natural shaded areas are not available erect a canopy to provide protection from direct sunlight.
- Have a supply of fresh drinking water available or advise guests to bring plenty of water for themselves and any children for whom they are responsible. In the case of children, make sure they drink plenty of water before they begin to feel thirsty.
- If any child or guest has symptoms of heat stroke, call 911 and/or an ambulance. Make sure they receive immediate medical treatment.

Symptoms

Heat Exhaustion – muscle cramps, sweating, weakness, cold clammy skin, fainting, vomiting, vague expression, and lack of awareness.

Heat Stroke – hot dry skin, rapid pulse, high body temperature, and collapse.

It is important to remember children are much more susceptible to heat exhaustion and heat stroke than adults.



5. American Academy of Pediatrics Committee on Sports Medicine and Fitness. (2000). Climatic heat stress and the exercising child and adolescent. *Pediatrics*, 106, 158-159.

Winter Storms and Extreme Cold

Agritourism events are typically held in the summer and fall. There may, however, be some winter attractions that take place. If children will be visiting in the winter, be sure to prepare for cold weather.

Winter Storms and Extreme Cold

- If a prescheduled group is arriving, be sure to indicate that children should have clothing suitable for the weather conditions and for the time spent outside.
- Be aware of low temperatures and wind chill factors and avoid prolonged outdoor exposure to those temperatures.
- Closely supervise children and be aware of exposed skin and signs of frostbite such as numbness in the extremities and white or grayish-yellow skin areas.
- Know the signs of hypothermia and immediately move victims to a heated area and contact emergency personnel.
- Provide a heated shelter and make it available to children and guests if they feel that they need to warm up or if they have failed to bring adequate outdoor winter clothing.



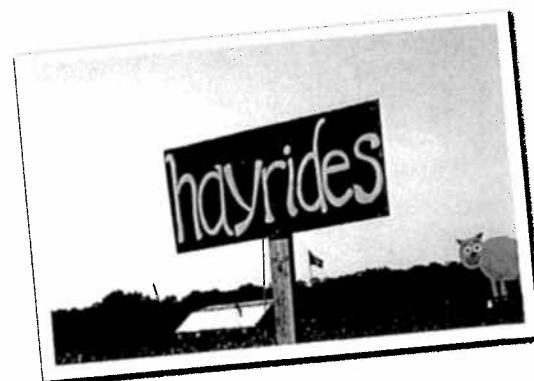
Health and Safety Guidelines for Specific Attractions

Hayrides

Hayrides are a common agritourism attraction. If done properly they can be a very enjoyable experience for children visiting the farm. However, they can be extremely dangerous if adequate safety precautions are not in place. The following recommendations can decrease the risk of injury or unintentional death.

Hayride Safety Recommendations

- At the beginning of each day, inspect tractors and hay wagons for safe and efficient operation. Check the hitch and make sure safety chains are in use.
- The tractor pulling the hayride must weigh more than the gross weight of the heaviest wagon it will tow. This is necessary for adequate traction and braking.
- If using horses to pull hayrides or sleighs please see the Animal Safety section of the guideline document for information on safety around animals.
- Check the hay wagon and repair loose boards and railings, sharp edges and exposed screws and nails.
- Have sturdy steps with handrails for easy loading and unloading of passengers.
- Have a responsible, properly licensed person operate the tractor. Because of the presence of children, have the proper supervisor-to-child ratio on the hayride (see Table 5).
- Choose the route carefully. Make sure it does not have steep grades or other hazards that can affect the stability of the tractor or hay wagon.
- Do not travel on or across public roads and highways. If offering sleigh rides in the winter, do not travel on or cross snowmobile trails.
- Drive slowly and do not tow more than one wagon.
- Never allow riders on the tractor.
- The hay wagon should have railings and seating. It is especially important to have a sturdy railing in the front of the wagon to prevent riders from falling forward and being inadvertently run over. No one should be allowed to hang their feet over the edge of the wagon.
- Do not allow standing on or crawling around the wagon. Jumping on and off the moving wagon should be forbidden. The operator of the hayride should be prepared to stop at the request of passengers.
- Clearly state safety rules to passengers and children once they are seated and ready to begin the hayride.



Corn Mazes

Corn mazes have become common and are popular agritourism attraction. They can range in size from a few acres to tens of acres. Children and young adults are most likely to be the primary visitors to corn mazes. Some will be supervised by parents and chaperones, while others will want to go into corn mazes on their own.

Some mazes have elaborate designs and many dead ends requiring considerable time to navigate, while others are a simple single winding path through the field. Regardless of how elaborate the corn maze is, the same basic safety recommendations apply. Note that the increase in popularity of corn mazes has led to some local regulations being adopted. Check with your local municipality about any regulations for corn mazes in your area.

Corn Maze Recommendations

- Walking on rough ground can be difficult for small children. Smooth out the path through the maze to prevent trips and falls. Remove ruts, bumps and debris from the path.
- The perimeter around the maze should be clear of vegetation or other structures.
- All traffic and parking should be at least 75 feet away from the maze. (See traffic and pedestrian safety section for additional recommendations.)
- Post rules at the entrance of the maze.
- Review basic safety issues with guests before they enter the maze.
- Make sure children and adolescents know how to quickly exit the maze by following the nearest row to the perimeter. Have signs and arrows around the perimeter of the maze directing guests to the entrance and exit of the maze.
- Children under 12 years of age should be accompanied by an adult, unless the maze is specifically designed for young children.
- Have two people monitor the maze from elevated platforms high enough so they have a clear view of the entire maze.
- Include a public address system such as a bullhorn or loud speaker so people monitoring the maze can give instructions to children and other guests who are in the maze.
- Give flags to all guests entering the maze that can be used to alert those monitoring the attraction.
- Do not operate motorized vehicles in the maze.

- In some cases a corn maze may be located far from the farm or parking area. Therefore, there should be a way to contact emergency personnel from the corn maze site and a vehicle designated for use in emergencies should be available.

- Be prepared for fires.
 - No open flame producing devices and/or equipment in the maze.
 - No smoking, cigarette lighters or matches.
 - No candles or lanterns.
 - Contact the local fire department and provide them with a fire preplan for the corn maze. Make sure the fire department is aware of the size of the maze and the exact location.
 - Have a fire extinguisher available to the individuals monitoring the maze.



Animal Contact and Petting Zoos

Zoonoses are infectious diseases common to both animals and people, and can be transmitted between both. Transmission of a zoonotic disease can be caused by direct contact with an animal or contact with the animals' surroundings. If an agritourism operation involves contact with animals, or if animals are present on the farm, special precautions should be taken to protect the health of children. Any activities that put children in contact with animals or their environments put them at increased risk for contracting a zoonotic disease. Table 6 lists several zoonoses commonly found in agricultural settings.

Table 6. Examples of common zoonoses found in agricultural animals and their environments

(Please note that there are may other zoonoses beyond these examples)

Definition

Zoonoses are pathogens common to both animals and people, and can be transmitted between both.

Zoonoses	Animal Species or Environment
E. coli	Cattle, sheep, deer, goats and birds
Anthrax	Cattle, horses, sheep and goats
Leptospirosis	Cattle
Rabies	Most farm animals, dogs and cats, wild animals
Milker's Nodules	Cattle
Q Fever (<i>Coxiella burnetii</i>)	Sheep, goats and cattle
Salmonellosis	Most farm animals
Ringworm	Cattle, pigs, sheep, horses, dogs and cats
Orf (Contagious Ecthyma)	Sheep, goats
Tularemia	Rabbits, other wild and domestic animals
Cryptosporidiosis	Calves, lambs, deer, and goats

Concepts referenced from:

Donham, KJ, et al. (2006). *Zoonotic Diseases: An Overview*. In: Donham, KJ and Thelin, A. *Agricultural Medicine: Occupational and Environmental Health for the Health Professional*. 357-379. Ames, IA: Blackwell Publishing.

People who rarely visit farms may be more susceptible to contracting zoonotic diseases. This is especially true for young children and immune depressed individuals; therefore extra caution should be made when they are present.

There are several important characteristics of zoonotic diseases. They are difficult to diagnose. The early symptoms of these zoonotic diseases often resemble stomach flu and would likely be diagnosed incorrectly, unless the treating physician is aware that the patient recently had contact with animals. Animals are often carriers of the disease but do not have any noticeable signs of disease. Therefore, a visual inspection of the animals will not indicate if they have the potential to transmit a disease to a person.

A detailed source of information on prevention of diseases associated with animals in public settings was developed by the National Association of State Public Health Veterinarians⁶. This document was published by the Centers for Disease Control and Prevention in Atlanta and can be downloaded at <http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5404a1.htm>.

6. National Association of State Public Health Veterinarians. (2005). *Compendium of Measures to Prevent Disease Associated with Animals in Public Settings*, 2005. *Morbidity and Mortality Weekly Report*, 45(RR04), 1-12. Available at <http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5404a1.htm>

Recommendations for Preventing Zoonotic Diseases

- Closely supervise all guests at all times. Pay special attention to children and ask parents and chaperones to make sure that children are following the recommended guidelines.
- Hand-washing facilities should be located immediately outside areas where there is contact with animals or their environment. The best option is to have people exit from the animal area to where hand washing facilities are located. Soap and running water need to be available for proper hand washing. Be sure to provide paper towels for guests. Place signs around the area to encourage all children and guests to wash their hands before they leave. If it is not possible to have adequate hand washing facilities, sanitary hand wipes or liquid hand sanitizers may be used. Inform guests to properly wash hands before eating or drinking.
- Include a "hand-washing demonstration" for children as a planned activity after visiting with animals.
- Eating or drinking must not be allowed in animal areas under any circumstances.
- Inform parents and chaperones not to bring cups, bottles, pacifiers or toys into the animal area.
- Guests with open wounds or compromised immune systems should not have contact with the animals and are encouraged to remain outside the area.
- Animals that will be in contact with the children and the public should be vaccinated and monitored daily for health problems. Sick animals or animals behaving strangely should not be in contact with the public. Contact your veterinarian or the USDA for information on preventative health measures for animals that will be in contact with children.
- Clearly identify animals that are in contact with the public and keep vaccination and health information records.
- Encourage guests to immediately report bites, scratches or scrapes to the person and/or persons in charge. Administer first-aid as soon as possible.
- Stay informed of emerging zoonotic diseases and/or new outbreaks of old diseases. If any of the newly identified diseases are associated with animals at your operation, take the necessary precautions to protect the public.



Post-Event Health and Safety Recommendations

Inspections and Repairs

Periodic inspections and repairs of the farm site should be conducted to ensure that all safety measures are still in place. The best option is to inspect the farm site at the end of the day, or after a large event. If an inspection has uncovered an item in need of repair, it should be completed as soon as possible and documented. Farm owners conducting a post-event inspection of their farm should pay particular attention to the following.

Inspection and Repair Recommendations

- The yard and all pathways should be cleared of debris and in good condition. Check for holes, ruts and other trip hazards. Make sure the parking area is still in good condition and that all the signs are still in place.
- Check all fences and barriers to make sure they are still in good condition. Replace any worn out part and check for loose nails and screws. Gates should be checked if they close correctly and that latches work properly.
- Hand-washing facilities and restrooms should be cleaned several times a day. Large operations with employees or volunteers should keep a written log of when hand washing facilities and restrooms have been cleaned. Be sure to restock paper towels and soap.
- Check all areas on the farm that are designated off-limits. If an area designated off-limits has been entered, take additional measures to prevent future access.
- Talk to your guests as they leave and inquire about any safety concerns they have. Their perspective can give insight into hazards that may not be apparent. Evaluate their concerns and take appropriate action.
- Keep written, dated records of all inspections and corrections.



Documentation

The type of documentation that should be kept for the agritourism operation will vary depending on the size of the operation and the specific attractions. Documentation will not prevent an incident or emergency from occurring, but it will be very helpful to have if a child experiences an injury or adverse exposure while visiting. The purpose is to have proof that steps have been taken to minimize the likelihood that a child would become injured or sick. The following types of documentation should be kept by the farm owner.

Documentation Recommendations

- Have documentation of all permits, certificates and licenses. Have both the original and copies that can be given out if requested. This includes, but is not limited to, food service permits, driver's licenses, as well as CPR and first-aid training certificates.
- Maintain veterinary and vaccination records of all animals on the farm. Provide copies to parents and chaperones if any child is bitten by an animal.
- Keep a record of the number of visitors that come to the farm and documentation of any incidents or emergencies.
- Keep detailed information on the size of prearranged groups, the type of event and if any incidents occurred.
- File records of all inspections and repairs.



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Additional Resources

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Child Safety Section
http://www.cdc.gov/NASD/menu/topic/child_safety.html

National Safety Council
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<http://www.nsc.org/issues/agrisafe.htm>

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