

Youth Working In Agriculture

- This presentation is divided into 5 sections. Click on the link to go to the Section:
 - [Section I](#) - Good Jobs Are Available Now And in Your Future
 - [Section II](#) - Farm Safety The Facts
 - [Section III](#) - Restricted Work Activities In Agriculture
 - [Section IV](#) - Preparing For Work In Agriculture
 - [Section V](#) - Safety On The Job

Youth Employment in Agriculture

Farm Safety
The Facts

Section II

Agriculture Can Be Dangerous

- Agriculture is one of the top 5 most dangerous jobs
- Some hazardous work activities include:
 - Large equipment
 - Large animals
 - Remote locations
 - Bulk materials



Agriculture Can Be Dangerous

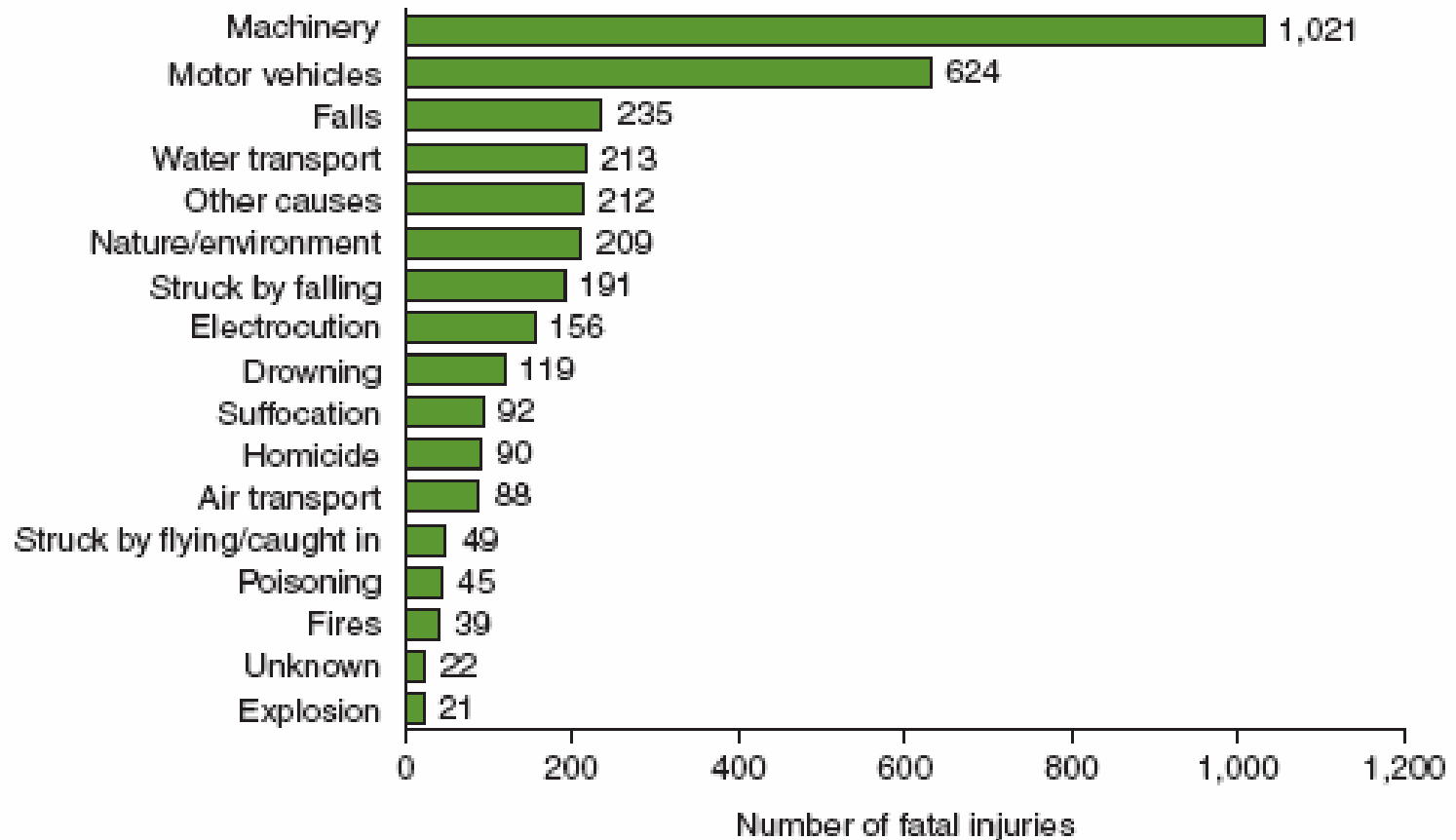
2003 Top 5

Industry	# Deaths	# Workers	Rate
Ag	32	79,883	40.1
Mining	4	6,400	62.5
Construction	34	190,000	17.9
Transportation	18	125,100	14.4
Retail Trade	12	516,600	23.2

Age of Michigan Fatalities 2003

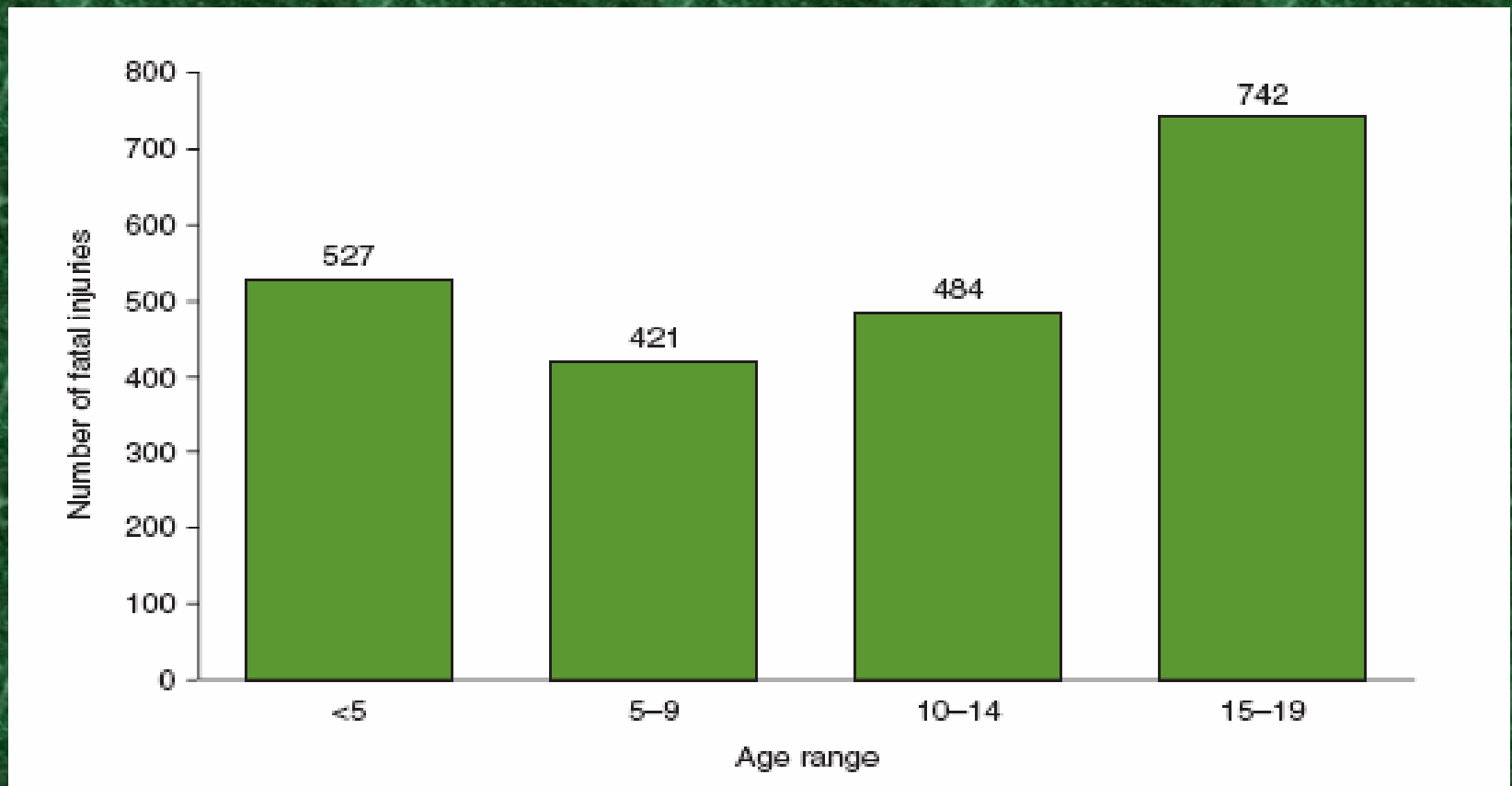
Age	# of Deaths
13-19	2
20-29	0
30-39	1
40-49	8
50-59	7
60-69	4
70-79	8
80-89	2

Sources of All Fatal Ag Accidents



(Sources: NIOSH [2001a]; Myers [2001a].)

Unintentional On-Farm Deaths of Youths 1992–1996

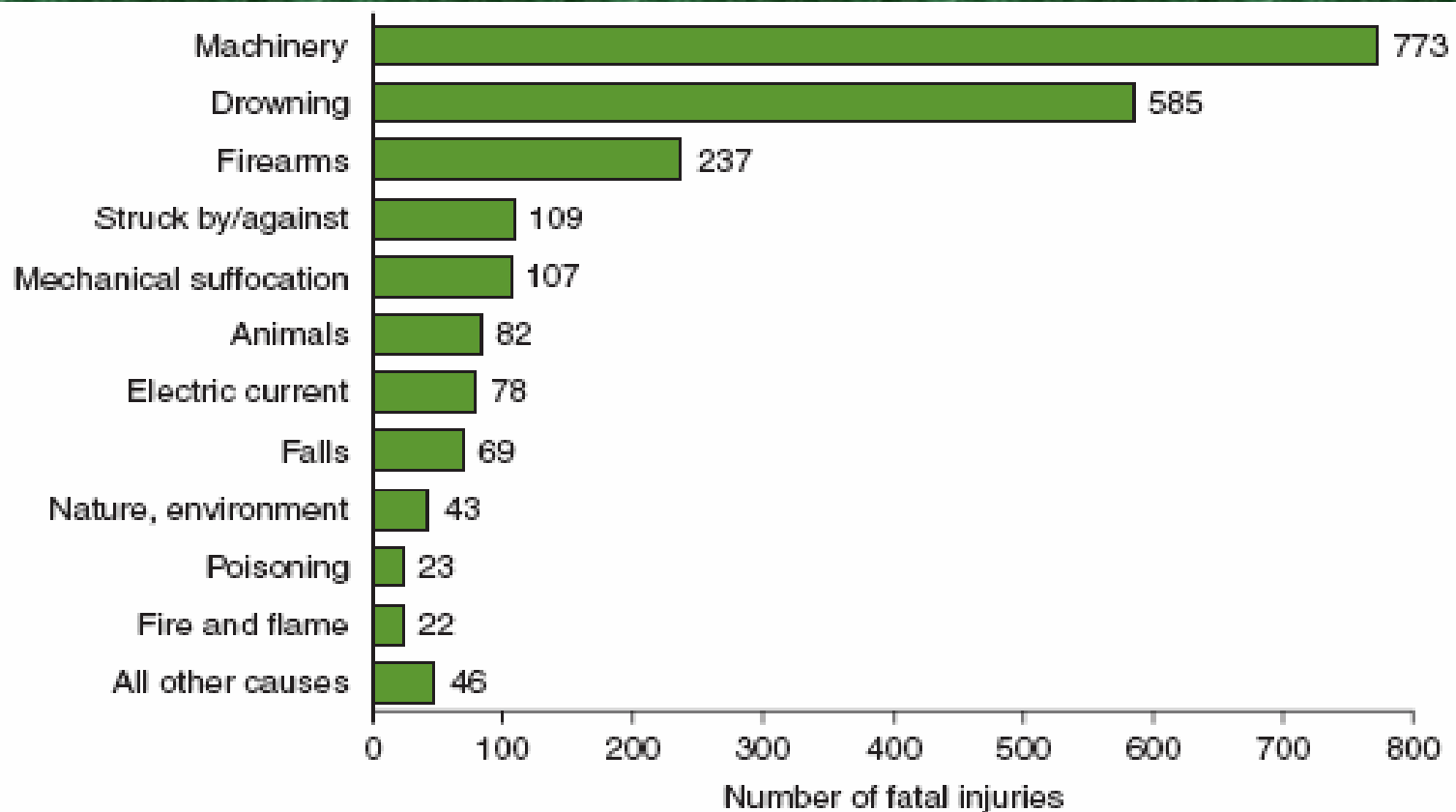


(Sources: NCHS [2002]; Adekoya and Pratt [2001].)

13 Year Old Dies

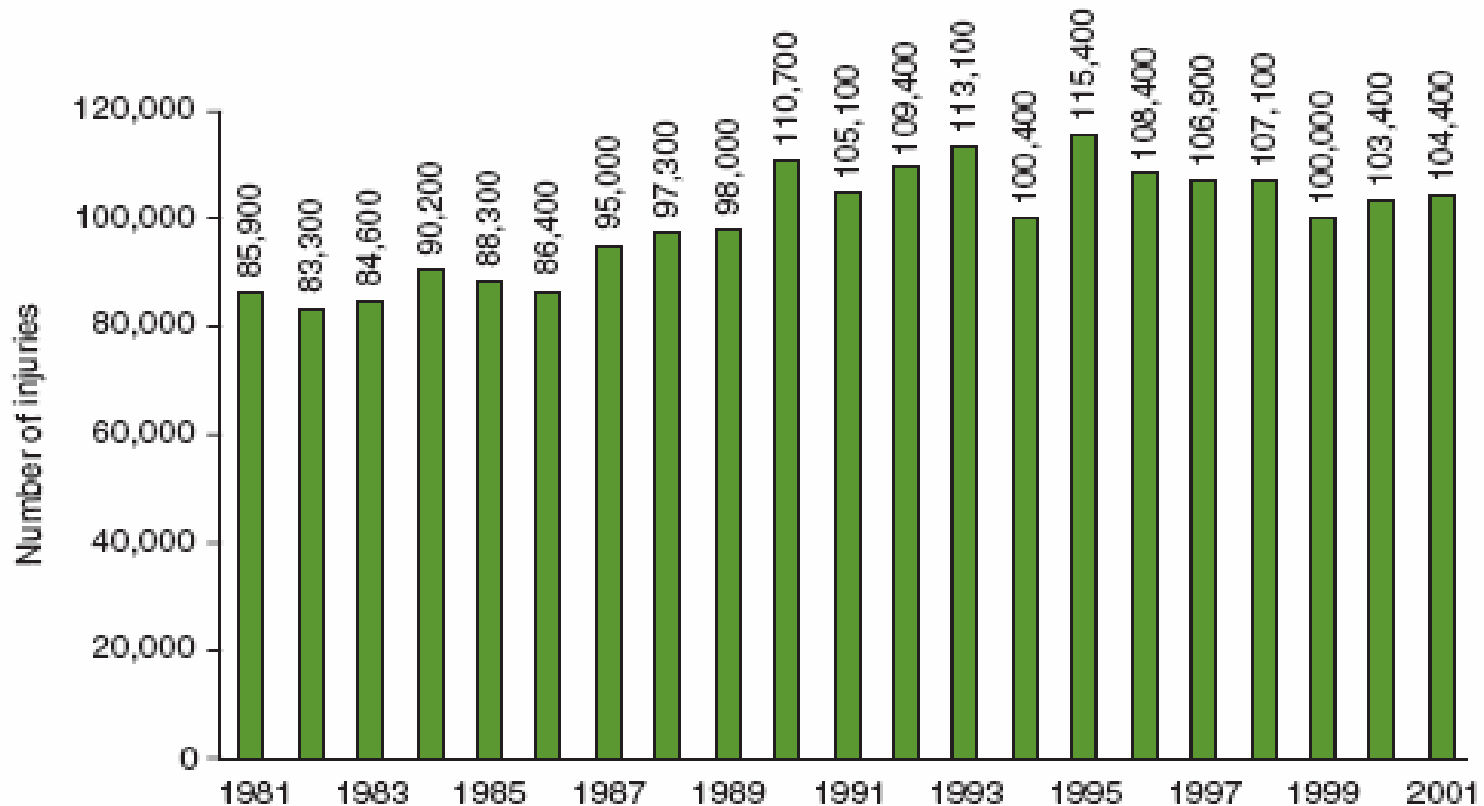


Unintentional On-Farm Deaths of Youths 1992–1996



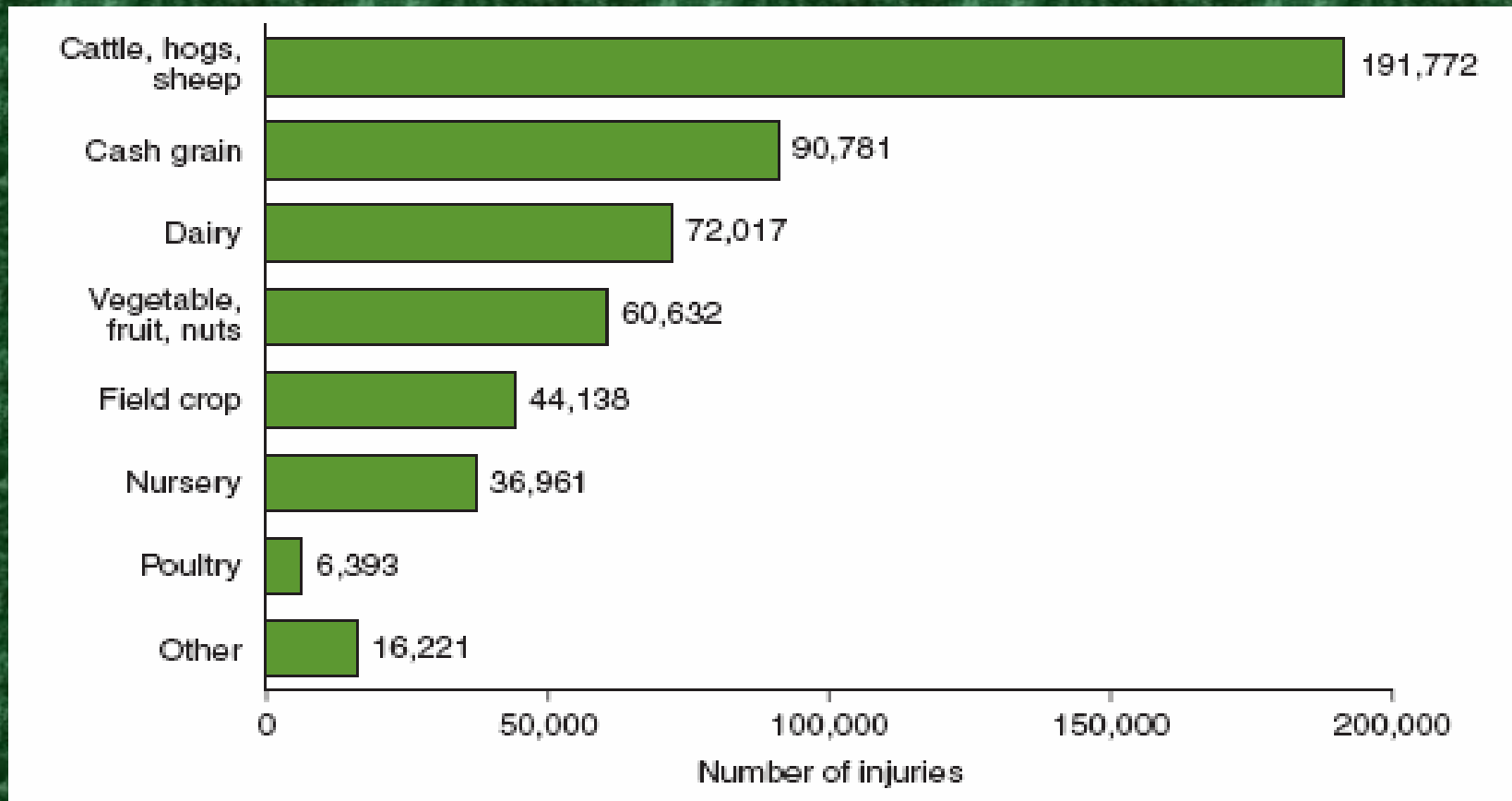
(Sources: NCHS [2002]; Adekoya and Pratt [2001].)

1981–2001 Injuries in Agriculture, Forestry, and Fishing



(Sources: BLS [2002c]; Myers [2002].)

1981–2001 Injuries in Agriculture, Forestry, and Fishing



(Sources: NIOSH [2001b]; Myers [2001c].)

Quiz

1. What was the fatality rate per 100,000 workers for farm workers in 2003?
A. 40 B. 62 C. 17
2. Do most fatalities occur to the young or the old?
A. Young B. Old
3. What is the most significant cause of injuries?
A. Horses B. Machinery C. Falls
4. What type of farm has more injuries?
A. Livestock B. Fruit and Vegetable C. Grain
5. Which factor may increase serious injuries?
A. Remote location B. Safety training C. PPE

Questions?



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Youth Employment in Agriculture

Farm Safety
The Facts

Section II

Agriculture Can Be Dangerous

- Agriculture is one of the top 5 most dangerous jobs
- Some hazardous work activities include:
 - Large equipment
 - Large animals
 - Remote locations
 - Bulk materials



In Michigan the calculated fatality rate for farm workers has ranged from 40-62 per 100,000 workers. This rate compares with general industry rates of 4-41 per 100,000 workers during the same time period (source: MiFACE project Michigan State University Department of Medicine).

For this reason there are a number of work activities that youth are prohibited or restricted in doing under the federal Fair Labor Standards Act.

Youth are specifically prohibited from operating or assisting in the operation of several types of large equipment and machinery. The prohibition is narrow in scope and does not cover many newer types of equipment and machinery. It is always wise to determine what equipment is restricted before starting a new farm job. While it is the employer's responsibility to keep youth from working in these restricted or prohibited activities it is also the youth's responsibility to follow the restrictions. Many youth will believe they are capable of operating certain pieces of equipment that are prohibited and will operate the equipment without to employer's direction or approval. This has led to serious damage to equipment and injuries to the youth operators. Certain prohibited or equipment can be operated under a written cooperative training program between the school and the employer.

Large animals pose another threat on the farm. No animal can be completely trusted to act "normally". In fact the opposite is the norm. Workers should understand that animals can react violently at any time. In most cases there is a cause such as a insect sting, a noise, or a person walking where the animal cannot see. But in many cases there is no apparent cause for the animals reaction to the worker.

In many cases the work done on farms is far away from roads or other access points making it difficult to reach a work site where an accident has occurred. For this reason many farm employers will restrict the youth work activities to areas that are accessible and have a minimum of risk associated with the work. The youth should understand the farm's Emergency Action Plan and how to seek assistance if an incident occurs.

Bulk materials provide additional hazards that most young people, as well as adults, are not prepared for and do not fully understand. Flowing grain can engulf a person in a couple of seconds. Bulk feed piles can collapse on a person walking by or climbing on the pile. Large material handling equipment can entangle a person in the blink of an eye.

For these and other reasons, farm workers need to constantly watch what they are doing.

Agriculture Can Be Dangerous 2003 Top 5

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Mining	4	6,400	62.5
Construction	34	190,000	17.9
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Retail Trade	12	516,600	23.2

In Michigan the calculated fatality rate for farm workers has ranged from 48-62 per 100,000 workers. This rate compares with general industry rates of 4-15 per 100,000 workers during the same time period (source: MiFACE project Michigan State University Department of Medicine).

Age of Michigan Fatalities 2003

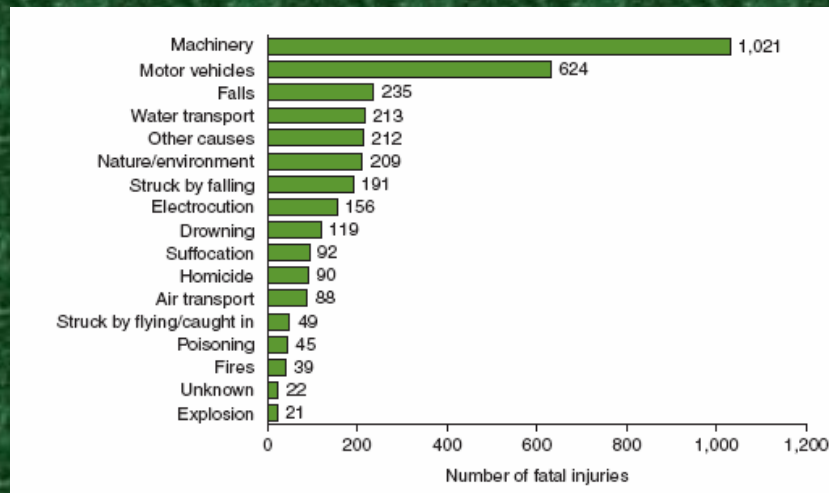
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While there is a strong belief that youth are more likely to be injured or killed at work recent industry reviews indicate the opposite to be true. In for 2001-2003, the Michigan statistics suggest that it is the older and more experienced farm workers who are losing their lives.

The average age of farmers, nearing 60 years old, plays a part in the numbers but should be offset by experience. During accident reviews where a fatality has occurred it is common to hear family or coworkers indicate that the person “knew better” but “thought he could do it just this once.”

Some would also propose that young people have not yet developed the “bad habits” that many older farm workers have. Many workers began working in agriculture when there were very few shield and guards and even fewer safety practices used.

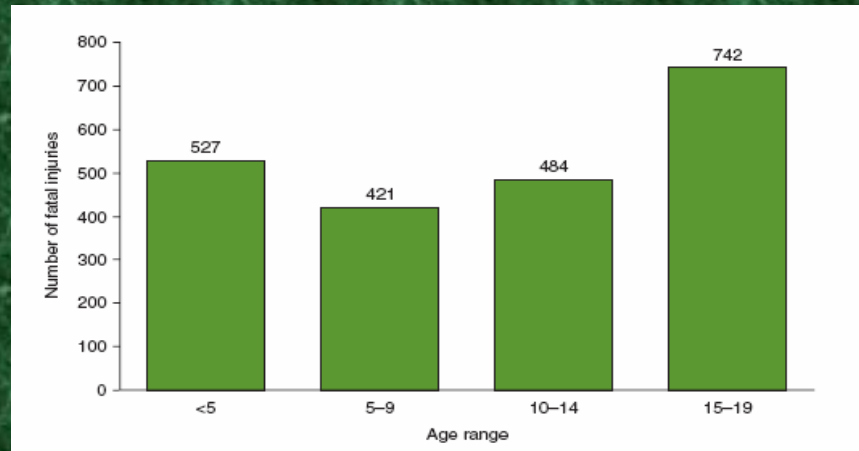
Sources of All Fatal Ag Accidents



(Sources: NIOSH [2001a]; Myers [2001a].)

Nationally, machinery is the most common cause of workplace fatalities across all industries with transportation related fatalities coming in second.

Unintentional On-Farm Deaths of Youths 1992–1996



(Sources: NCHS [2002]; Adekoya and Pratt [2001].)

Generally, youth under 10 years of age are not, strictly speaking, working on the farm. Youth of any age are allowed to work on a farm owned or operated by their parent. Many of these very youth fatalities occur where the youth is riding with a parent or grand parent while doing farm work or is on a “pleasure ride”. Youth 10-19 are generally directly involved in work on the farm.



Farm Youth Died When He Became Entangled in an Unguarded PTO Shaft

Summary

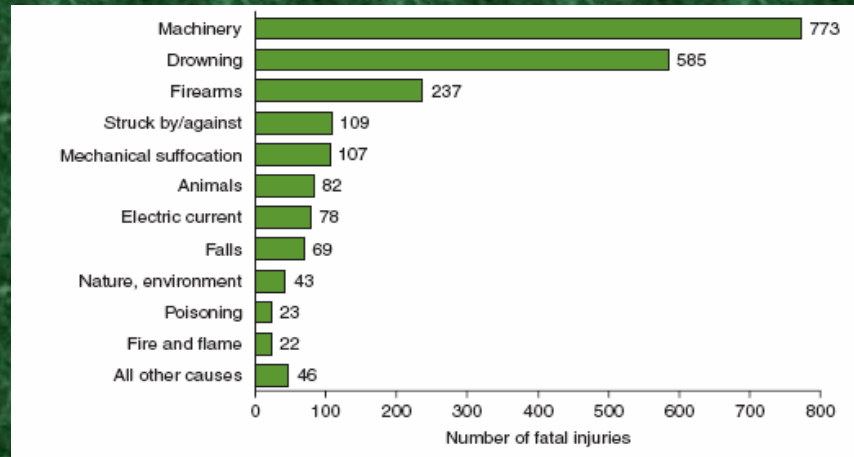
On May 23, 2003, a 13-year-old farm youth was killed when he became entangled in an unguarded rotating power take-off (PTO) shaft at the rear of his narrow front Farmall Model M tractor. (See Figure 1) The youth and his teenage cousin were raking hay in a field that had been cut a few days prior on an adjoining property. Both were driving narrow front Farmall Model M tractors equipped with a non-PTO powered hay rake designed for attachment to the tractor's drawbar. Neither tractor had a PTO master shield installed. The victim's tractor was ahead of his cousin's tractor and as he had already finished raking, had driven the tractor up near the barn. The victim's tractor had an owner-modified extension lever to activate the PTO located at the right side of the operator. This extension lever was a one-half inch (approx.) diameter steel rod with an aluminum pop can placed over the end that allowed the operator to activate the PTO lever located to his left behind the seat without turning around in his seat. The PTO shaft on the victim's tractor had a PTO extension attachment secured by an unshielded 5/16-inch bolt that protruded approximately 1-1/4 inches beyond the shaft. Another individual installing a fence nearby saw the victim dismount from the tractor. It is unknown if the victim had disengaged the PTO before he dismounted, how the victim dismounted the tractor, and when the extension's bolt caught the right arm of victim's sweatshirt. After his cousin finished his raking, he pulled up behind the victim's tractor. He walked to the victim's tractor, saw the victim, turned off the tractor, and ran to the property owner's house to notify him. The individual installing the fence saw the cousin run to the property owner's house and went to the victim's tractor. Seeing the victim, he called 911. Emergency personnel arrived and the youth was declared dead at the scene.

RECOMMENDATIONS

- All rotating shafts, including tractor stub shafts, should be covered by shields/guards in good condition when the tractor is operated.
- Tractor operators should always disengage the PTO, shut off the engine, and if applicable, remove the key before getting off of the tractor.
- Operators should not wear loose-fitting or frayed clothing that can get caught in machinery. Also, jackets and sweatshirts with draw-strings can get caught on rotating shafts

MIFACE INVESTIGATION: #03MI052

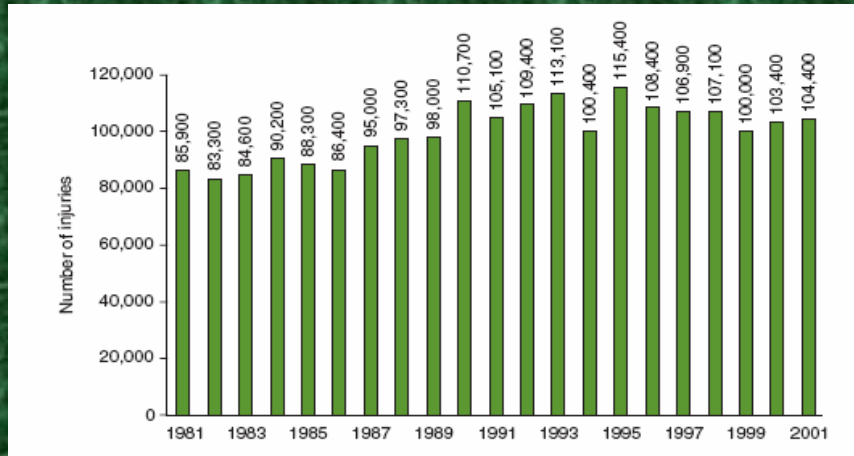
Unintentional On-Farm Deaths of Youths 1992–1996



(Sources: NCHS [2002]; Adekoya and Pratt [2001].)

On the farm machinery is the number cause of workplace fatalities. Tractors continue to be the primary piece of equipment involved in farm fatalities. Pesticide and chemical poisoning, while receiving the most media, continue to be a low cause of fatalities with many of these being probable suicides.

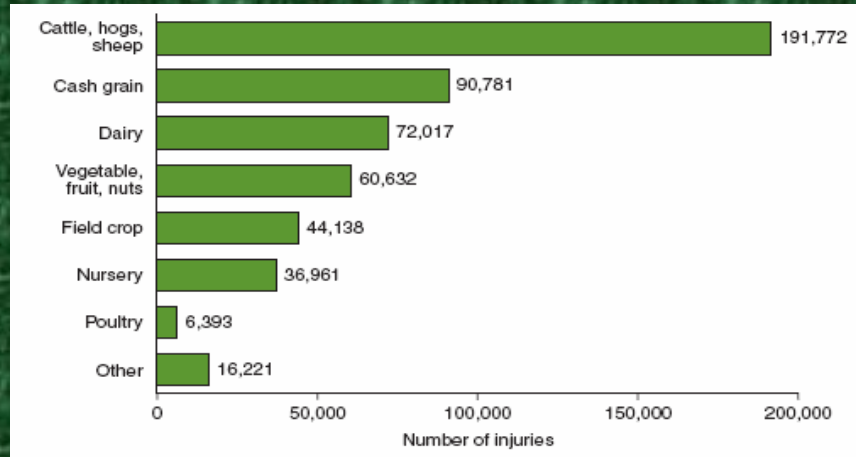
1981–2001 Injuries in Agriculture, Forestry, and Fishing



(Sources: BLS [2002c]; Myers [2002].)

As equipment grew larger so did the total injuries on the farm. As the equipment has improved and safety features have been added the injury level has stabilized and may be trending downward. Injury levels also follow the type of planting or harvest season an area is having. Poor conditions tend to increase the amount of injuries while good conditions tend to decrease total injuries.

1981–2001 Injuries in Agriculture, Forestry, and Fishing



(Sources: NIOSH [2001b]; Myers [2001c].)

While machinery is still the number cause of injuries the type of farming also plays a roll. Livestock far and away has the greatest number of injuries. There are many potential causes include seven day a week operations, wet and slippery work surfaces, lifting heavy materials such as feed and bedding. Being close to large animals such as cattle, goats, and horses leads to crush injuries where the worker is stepped on, bit, or pinned to a wall or a gate by the animal.

Fruit and vegetable operations who employ the largest number of workers have comparably lower injury levels. Injuries here include trip and falls, strains and sprains from lifting harvested product, and falls from ladders.

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Answers: A. B. B. A. A.

Questions?

