

# Working Safely on Farms



Maximizing the benefits while  
reducing the risks

# Objectives

- Discuss the benefits of working on a farm
- Explore the challenges/risks to working on farms
- Contrast the risk to youth working in agriculture with other occupations
- Discuss strategies for addressing these challenges and risks
- Determine how to balance the risks and benefits

# The Numbers

- ~893,000 children live on farms
- More than half of them work on the farm
- Over 265,000 hired youth work on farms  
*(non-resident)*

# Perceived benefits

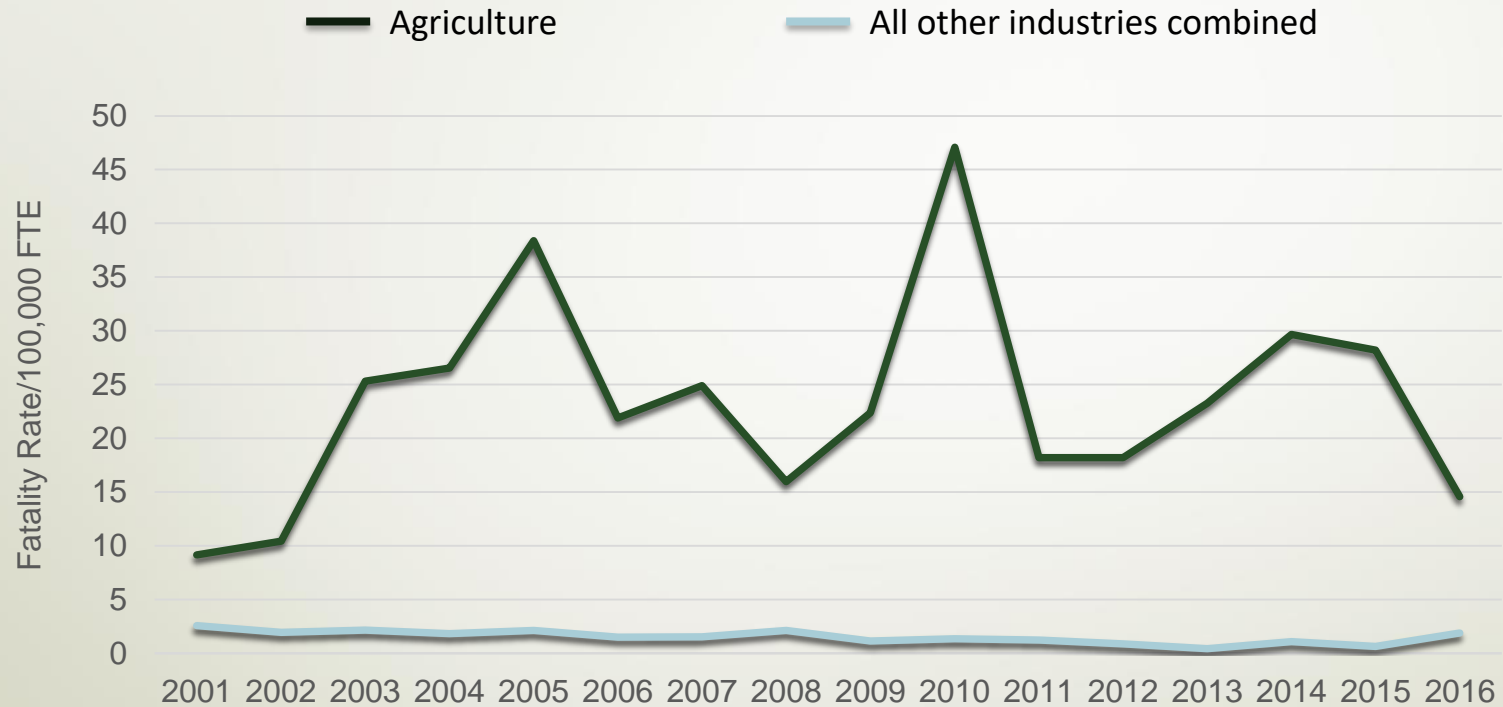
- Instills a passion, love and respect for land
- Lifelong friendships
- Work/bond with family
- Teaches about the life/death cycle
- Builds character
- Instills a good work ethic
- Teaches responsibility
- Better health
- Lots of room for kids to play
- Have the best pets

# Challenges/Risks

- Injury/death
- Keeping friends/visitors safe
- Child care
- Creating fun
- Isolation
- Instilling a love for farming – safely
- Keeping family in harmony
- Young workers

# Working Youth

## Fatality Rates in Agriculture vs All Other Industries, 2001-2016



Source: Fatal injury totals were generated by NIOSH researchers with restricted access to the Bureau of Labor Statistics (BLS) Census of Fatal Occupational Injuries (CFOI) microdata; additional information at [www.bls.gov/iif/oshcfoi1.htm](http://www.bls.gov/iif/oshcfoi1.htm)

# Working Youth Injuries/Fatalities

## Transportation incidents

**Causes:**



**Machinery**




**Motor Vehicles**

# Young Workers

- Have less experience
- Engage in risky behavior
- Influenced by peers
- Don't often "speak up"
- Behaviors off the job can impact safety  
(sleep, emotional health, substance abuse, etc.)







**How can we address these  
challenges and risks?**

# Youth Working in Agriculture

- Work at **younger ages** & in more **hazardous** jobs
- **Developing bodies** ☐ coordination, balance, reach
- **Developing brains** ☐ attention span, impulse control, decision making
- **Fatigue, substance use, and distracted behaviors**



# What's in a number (age)?

*Despite the designation of age 18 as an adult by legal standards in many jurisdictions, there is nothing magical about this age in terms of psychological and physical development. We know that the human body, especially the brain, continues to develop and mature up to age 25, and sometimes beyond.*

*David Schwebel, PhD*

*Child Development Specialist, Professor of Psychology  
University of Alabama – Birmingham*

# Top 5 Injury Statistics:

A child dies in an agriculture-related incident about every 3 days

Every day, about 33 children are injured in an agriculture-related incident

Agriculture is one of the most dangerous occupations in our nation, and the only worksite in the U.S. where children of any age can be present.

The number of ag-related youth worker fatalities is higher than all other industries combined.

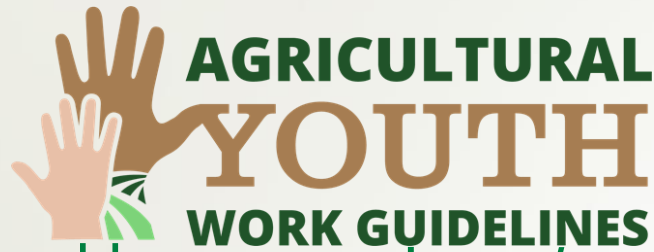
Many agricultural work-related injuries and deaths are associated with children doing work that does not match their developmental level

60% of child ag-related injuries happen to children who are not working

# Before Assigning Work

- Assess the worker's ability to perform the task, regardless of their age.
- Assessment includes, but is not limited to
  - physical and cognitive abilities
  - experience with similar or precursor tasks
  - successful demonstration of current task 4-5 times under supervision
- Supervisors must also provide training, supervision and enforce policies.

# Working Youth




- Used by supervisors/parents
- Assign tasks based on ability
- Mobile friendly website
  - Interactive
  - Read
  - Download
  - Print

## Operating a Tractor

**Can youth do this job safely?**

Youth must be able to do have all of the following to perform this job safely:

- Reach and operate controls while wearing a seatbelt
- Strength to repeatedly operate controls
- Tall enough for good field of vision when seated on tractor
- Understand and consistently repeat a 10-step process
- Recognize a hazard, problem solve, and respond appropriately
- React quickly to hazards
- Mature enough to consistently do what is expected
- Think through actions and consequences before acting
- Avoid loose clothing, clothes with strings, tie back long hair
- Comply with the [working outdoors guideline](#)
- Safely demonstrate the job 4 to 5 times
- Maintain two-way communication link



**Adult Responsibilities**

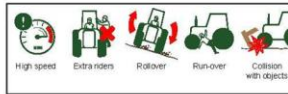
- Ensure tractor is mechanically sound and safety features are in place, including ROPS
- Review [developmental guidelines](#) to verify youth's ability to operate tractor
- Demonstrate how to safely drive tractor
- Provide appropriate training
- Educate youth to mount tractor using 3 points of contact
- Ensure work area is free from as many hazards as possible
- Educate youth on avoiding/addressing remaining hazards
- Ensure youth does not operate tractor after dark in bad weather
- Train youth to call an adult if equipment malfunctions

**Supervision**


*Note: Ensure tractor is sized appropriately for youth. Youth must be 16+ years to drive an articulated tractor. See [Tractor Operations Chart](#) for guidance.*

14-15 years	Intermittent supervision progressing to periodic
16+ years	Periodic supervision

**Hazards**



**Protective Strategies**



[www.cultivatesafety.org](http://www.cultivatesafety.org)

https://doi.org/10.21608/nrcrafs.youthwork.operattractor.g.2017

# Ability

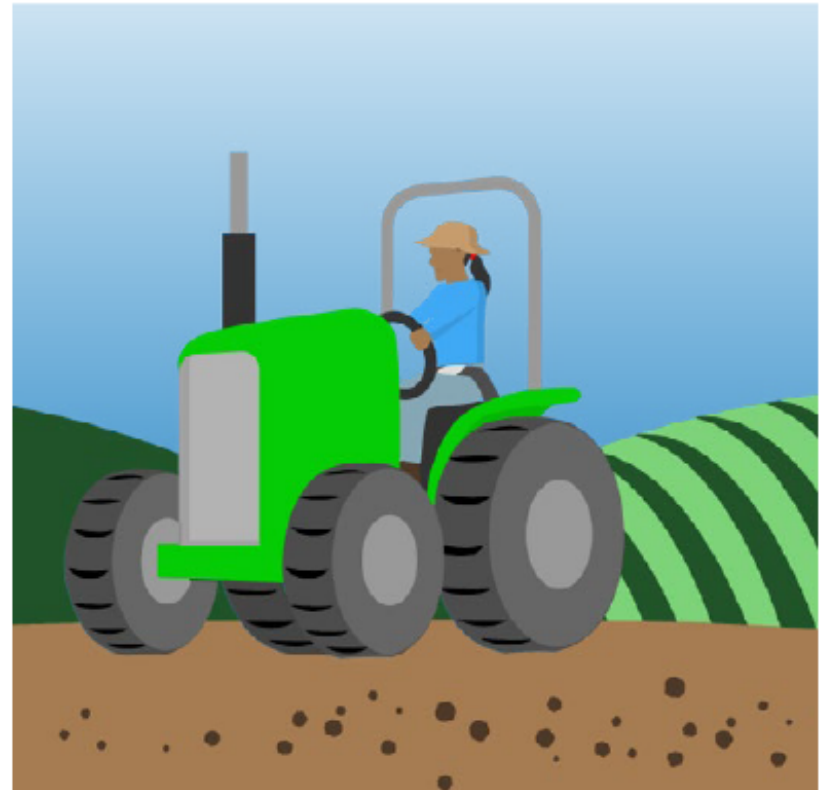


## Operating a Tractor

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# Adult Responsibilities

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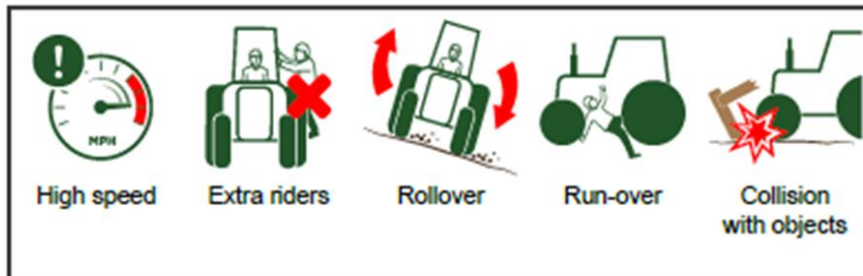
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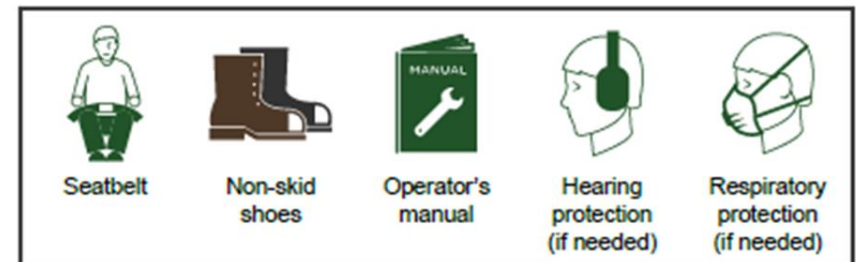
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## Hazards



## Protective Strategies





# Printing & Customizing

## Operating a Tractor

[Back To Full Guideline](#)

**Operating a Tractor**

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DOI: <https://doi.org/10.21838/nfmc.nccrahs.youthwork.operatetractor.g.2017>

## PDF Options

Select a PDF skin tone, and then the equipment color. Then download or print the PDF that previews on the left.

Skin Tone

Light

Equipment Color

Red

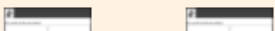
Download

Print

## Description

Work guideline to help adults protect and supervise youth while operating a tractor.

## Related Resources




# Hired Youth

## Safety Guidelines for Hired Adolescent Farm Workers

- Training tip sheets
- Safety posters
  - Work conditions
  - Teen characteristics
  - Training & supervision info
  - Fair Labor Standards Act
  - Hazards
  - Things to remember
- English & Spanish

### Hand Harvesting Fruit and Vegetables



**Main Hazards**

- Sharp Tools
- Sun Exposure
- Repetitive Motion

**Remember**

- Proper Body Movement
- Non-skid Shoes
- Good Handwashing

**Supervisor responsibilities**

**Work conditions**

- Provide safe transport to field
- Ensure reentry standards are followed
- Allow for rest in shaded areas
- Provide toilet facilities and water for drinking and washing hands
- Allow 10-minute break every hour
- Maintain a communication link

**Teen assessment**

- Be aware of insect allergies or medical conditions
- Can repeat task for 50 minutes without becoming exhausted
- Has positive safety attitude
- Can easily carry 15 percent of body weight
- Is able to bend and lift using proper body mechanics

**Training and supervision**

- Train employees on safe bending and lifting practices
- 1. Keep back as straight as possible
- 2. Shift weight from foot to foot
- 3. Stand with feet shoulder-width apart; one foot in front of other
- 4. Hold in stomach muscles
- 5. Shift from leg-to-leg when squatting
- 6. Avoid twisting to reach objects
- 7. Shift body position often
- Train employee in safe cutting
- 1. Use the right tool for the job
- 2. Don't use a tool that is oily, greasy or too heavy to handle
- 3. Plant feet firmly
- 4. Cut away from body
- 5. Keep wrist straight

**Federal Regulations: Fair Labor Standards Act (FLSA)**

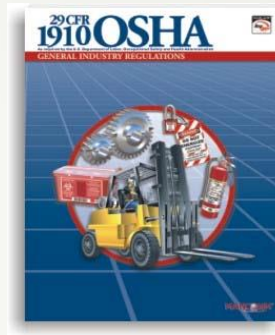
- Refer to Adolescents at Work guideline for general regulations.
- Find state-specific information at [www.dhs.gov/eis/vvt/ohsa/flsa](http://www.dhs.gov/eis/vvt/ohsa/flsa).
- Youth under 16 may not apply toxic agricultural chemicals (including cleaning or decontaminating equipment, disposal or return of empty containers, or serve as a flagger for aircraft applying such chemicals).
- Youth under 16 may not operate or assist with (including starting, stopping, adjusting, feeding, or any other activity involving physical contact associated with the operation) power-driven circular, band, or chain saw.
- Youth under 16 may not work to load or unload timber with a butt diameter of more than 6 inches; or fell, buck, or skid timber.

www.msnfieldinc.org/ncrahs/ 1-800-642-6500 • Hazardous We! NO!n Grant #5-USG-DH088027

**Safety Guidelines**  
Hired Adolescent Farm Workers

# Regulatory Agencies in Ag

- The Occupational Safety and Health Administration
- The Environmental Protection Agency
- State Codes: Department of Transportation
- Code of Federal Regulations
  - 29CFR1928.51 and 29CFR1928.57
- Department of Labor
  - Hazardous Occupations Order in Agriculture



# Hazardous Occupations Orders in Agriculture (HOOA)

- In 1968, U.S. Department of Labor declared eleven agricultural tasks too hazardous for youth younger than 16.
- The law does not apply to youth younger than age 16 who are employed, either with or without compensation, by their parents or legal guardian.
- 14 & 15 year olds can be exempt from certain portions of the law. This exemption applies to agricultural tractors & specific types of farm machinery.

# AgHO's: 11 Hazardous Tasks

**1. TRACTOR** - Operating a tractor of over 20 PTO horsepower, or connecting an implement or any of its parts to or disconnecting it from such a tractor.

**2. GENERAL MACHINERY** - Operating or assisting to operate (including starting, stopping, adjusting, feeding, or any other activity involving physical contact associated with the operation) any of the following machines: corn picker, cotton picker, grain combine, hay mower, forage harvester, hay baler, potato digger, mobile pea viner, feed grinder, crop dryer, forage blower, auger conveyor, the unloading mechanism of a nongravity-type self-unloading wagon or trailer, power post-hole digger, power post driver, or nonwalking rotary tiller.

**3. SPECIALIZED MACHINERY** - Operating or assisting to operate (including starting, stopping, adjusting, feeding, or any other activity involving physical contact associated with the operation) any of the following machines: trencher or earthmoving equipment; fork lift; potato combine; or power-driven circular, band, or chain saw.

**4. LIVESTOCK** - Working on a farm in a yard, pen, or stall occupied by a bull, boar, or stud horse maintained for breeding purposes; a sow with suckling pigs; or cow with newborn calf (with umbilical cord present).

**5. WOODLOT** - Felling, bucking, skidding, loading, or unloading timber with a butt diameter of more than 6 inches.

**6. LADDER and SCAFFOLD** - Working from a ladder or scaffold (painting, repairing, or building structures, pruning trees, picking fruit, etc.) at a height of over 20 feet.

**7. TRANSPORT** - Driving a bus, truck, or automobile when transporting passengers, or riding on a tractor as a passenger or helper.

**8. TOXIC ATMOSPHERE** - Working inside fruit, forage, or grain storage designed to retain an oxygen deficient or toxic atmosphere; an upright silo within two weeks after silage has been added or when a top unloading device is in operating position; a manure pit; or a horizontal silo while operating a tractor for packing purposes.

**9. CHEMICALS** - Handling or applying (including cleaning or decontaminating equipment, disposal or return of empty containers, or serving as a flagman for aircraft applying) agricultural chemicals classified under the Federal Insecticide, Fungicide, and Rodenticide Act (7 U.S.C. 135 et seq.) as Category I of toxicity identified by the word "poison" and the "skull and crossbones" on the label or as Category II of toxicity, identified by the word "warning" on the label.

**10. BLASTING** - Handling or using a blasting agent, including but not limited to, dynamite, black powder, sensitized ammonium nitrate, blasting caps, and primer cord.

**11. FERTILIZERS** - Transporting, transferring, or applying anhydrous ammonia.



**AGRICULTURAL WORK CLASSIFIED AS  
HAZARDOUS**

**LEARN MORE AT:**  
[www.agsafety4youth.info](http://www.agsafety4youth.info)

# AgHO's Penalties



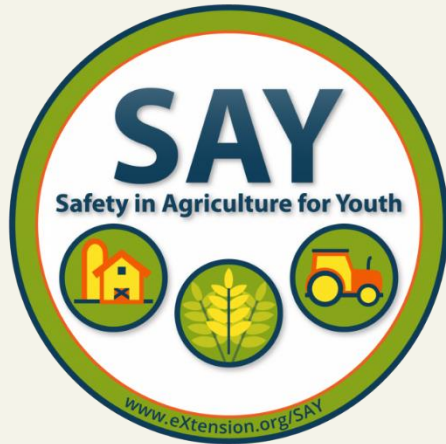
- Penalties can be strict if youth are subjected to hazardous occupations.
- Youth are not penalized for the infractions, but the employer can be.
- The penalty to the employer for the first offense can be up to a \$10,000 fine for a willful violation.
- For a second offense, up to a \$10,000 fine and/or imprisonment for not more than six months can be assessed.

# AgHO's Exemptions

- Minors working on a farm owned or operated by a parent or legal guardian
- Minors 14 or 15 years of age completing a tractor and machinery certification program
  - Exempt for tasks 1 & 2
  - 4-H Extension program
  - Vocational / Ag Science program
- Student learner enrolled in an Ag Science classroom working as an apprentice under a written agreement with the ag employer
  - Exempt for tasks 1 – 6

# Safety in Agriculture for Youth

## A National Initiative



National Steering Committee



United States Department of Agriculture  
National Institute of Food and Agriculture



THE OHIO STATE  
UNIVERSITY

COLLEGE OF FOOD, AGRICULTURAL,  
AND ENVIRONMENTAL SCIENCES





# **SAY: Project Vision**

Sustainable and accessible national clearinghouse for agricultural safety & health curriculum for youth

## **Multiple programs/projects/activities that:**

- Increase safety & health knowledge
- Reduce hazard and risk exposure youth have while on farms and ranches

September 2013 – August 2021



Web site hosted on eXtension's Ag Safety and Health Community of Practice website:

**[ag-safety.extension.org/SAY](http://ag-safety.extension.org/SAY)**

SAY homepage is the hub to access all of the project activities with links to newsletters, websites of project partners, and MORE.

Teacher Resource Guides - Animal systems and Power, Structural and Technical Systems

Injury Risk Assessment Tools for Supervised Ag Experiences for FFA

Videos on how to use the Clearinghouse and integrate it into the classroom

Curriculum Alignment Submission Tool (CAST)

Clearinghouse evaluation - National Children's Center

[www.ag-safety.extension.org/SAY](http://www.ag-safety.extension.org/SAY)

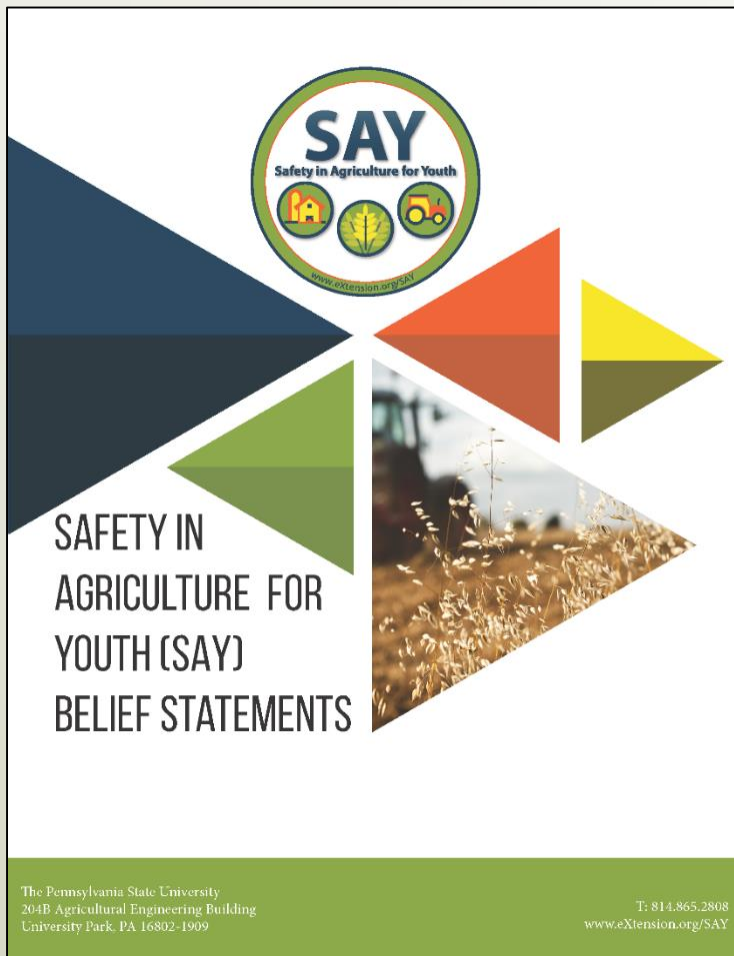
# Expanding the Clearinghouse

The Curriculum Alignment Submission Tool (CAST) allows authors/programmer to submit their curriculum or resource to see if it aligns with the AFNR standards to be included in the Clearinghouse



The image shows a screenshot of a web form titled "PennState" with a Nittany Lion logo. The form is enclosed in a blue border and contains the following fields:

- Name of Submitter:** A text input field.
- Name of Organization:** A text input field.
- Email Address:** A text input field.
- Phone Number:** A text input field.
- Title of Educational Resource:** A text input field.



.... An important goal of the committee is the articulation of consensus-based beliefs and principles that promote safety and health for youth working in agriculture. It is through these practices that we can collectively improve the safety and health of youth working in agriculture.

# Working Youth and Supervisors

## Adults/Supervisors

- Assign tasks
- Provide training
- Mitigate/address hazards
- Provide PPE
- Set boundaries and rules
- Enforce policies/procedures
- Provide a role model

## Youth

- Perform tasks
- Follow rules/guidelines
- Ask questions
- Wear PPE

# Supervision Training

- Online, interactive training for supervisors of young workers in English and Spanish
- Raise awareness of risks
  - including factors not traditionally considered workplace hazards
- Build supervisor's skills to protect young workers

[www.AgOSH.org](http://www.AgOSH.org)




¿Por qué estamos aquí?

Módulo 1

Los trabajadores jóvenes de edad 14-24 son únicos e importante adición a los trabajos.

Muchos trabajadores jóvenes son entusiastas, energéticos, y ansiosos para aprender.

Como supervisor de trabajadores jóvenes, usted tiene la oportunidad de influir en las actitudes de los trabajadores jóvenes hacia la seguridad en la granja.

A photograph showing a man in a light-colored polo shirt (the supervisor) pointing towards something off-camera, while a younger man in a plaid shirt and a white cap (the young worker) looks on attentively. They are outdoors, likely on a farm, with a red tractor visible in the background.

# Training for Supervisors

- Participate in a study
  - Evaluate online training
  - Supervisors of young agricultural workers
  - English or Spanish
- Receive \$50
  - Complete Survey and Training
  - Complete a follow-up survey 6 months later
- You are eligible if you are:
  - At least 18 years old
  - Supervise workers between 14-21 years



For more information, go to [www.AgOSH.org](http://www.AgOSH.org)



# Model Policy

Updated 6.17.14



## Model Policy: Youth Employment in Agriculture

### Background

Agricultural operations are hazardous by nature and special protections need to be in place to protect youth and untrained workers from the hazards found in specific jobs, locations, and practices. With proper job training, adequate supervision, occupational health and safety education appropriate for the age and developmental level of the learner, and consistent enforcement of work rules, farm work can provide safe and valuable introductory work experiences, and important income opportunities. In many cases, farm work may provide the only introductory employment opportunities available for adolescents. These early employment experiences are increasingly important in motivating young people to seek a career in the industry and enter college programs in farming, food processing, food marketing, landscaping, horticulture, and other agricultural disciplines. Positive early work experiences, hands-on vocational educational training opportunities, and robust post-secondary education programs in agriculture and agribusiness are critical to the future of American agriculture and continuation of our abundant, diverse, safe, and economical food supply.

Ideally, youth will have developmentally- and age-appropriate agricultural work opportunities that can be performed safely and are within their physical, cognitive and emotional abilities. Young workers must be afforded extra protections from hazards or situations that would subject them to undue risk of injury or long-term health risks. The National Council of Agricultural Employers (NCAE) is the national trade association focusing exclusively on agricultural labor issues from the agricultural employer's viewpoint. Over 300 strong, NCAE members are growers, associations, and others whose business interests revolve around labor intensive agriculture. NCAE has a model workplace policy prohibiting unauthorized workers including underage children in the workplace. NCAE also has a 2010 "Youth policies in U.S. Agriculture" position paper. At the annual meeting of NCAE in Washington DC of February 2013, with 80 plus members in attendance, a panel with youth safety experts discussed the value of developing a model policy on youth employment that expands upon the earlier NCAE position statement. It was suggested that with more recent events surrounding regulatory proposals and more information about injuries experienced by youth working in agriculture, now is a good time to update, expand and promote a model position paper.

Through a series of teleconference calls, in-depth discussions were undertaken of relevant voluntary standards and regulations already in use and specific areas of concern regarding job assignments for youth. All drafts and updates were reviewed by members of the 20-person task force.

- Background
- Details of policy
- Info on development
- Guidance for adapting policy

# What Else?

- Supervision
- Child Development
- Benefits of Farm Work
- Communication Plan
- Bending, Lifting & Climbing
  - Videos
  - Fact Sheet



# Additional Resources

- [CultivateSafety.org](http://CultivateSafety.org)



Search Site

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[Home](#) / [Online Tools](#)



## AgInjuryNews

A publicly available interactive dataset of more than 3,000 farm-related injury reports.

[Visit Site](#)



## Safe Agritourism

Provides information and over 200 free resources to help Agritourism operators keep visitors safe.

[Visit Site](#)



## Farm Mapper

Digitally identify and map hazards through a birds-eye or augmented reality view.

[Visit Site](#)



## Safe Return to Work

Empowering clinicians to provide injured workers with effective and adaptive return to work options.

[Visit Site](#)



## Safer Farm

Allows anyone the ability to accurately recognize and resolve potential farm hazards.

[Visit Site](#)



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

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National Farm Medicine Center

# Revisiting the SEM

## Who do we need to reach?

### Definitions

**Policy:** Federal/state regulations with enforcement such as child labor restrictions, workers compensation, immigration, OSHA rules

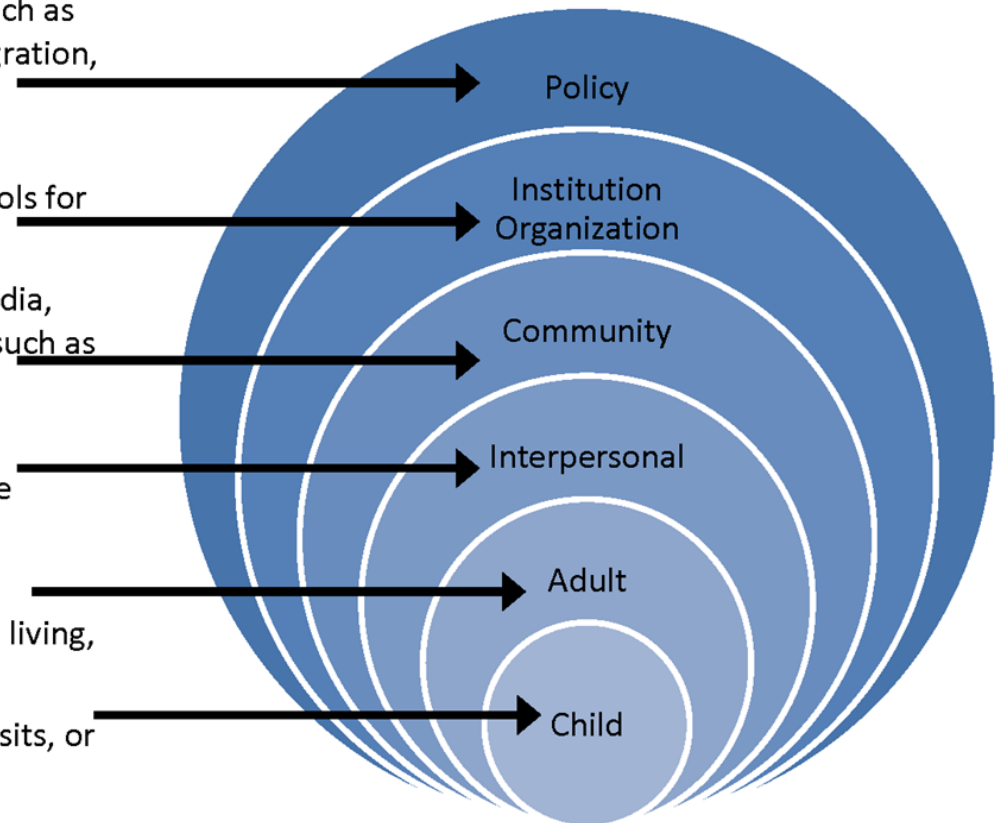
**Institution/Organization:** Corporations, national organizations, agencies that set standards and protocols for their trade agreements, employees and members.

**Community:** Childcare centers, schools, churches, media, advocacy groups and community-level organizations such as farm cooperatives or FFA chapters.

**Interpersonal:** Persons with close relationships to the immediate family such as relatives, friends, healthcare providers, or peer groups.

**Adult:** Parent, guardian, farm owner, employer, other individual who bears primary responsibility for a child living, visiting, or working on an agricultural production site.

**Child:** An individual 0-18 years-of-age who lives on, visits, or is hired to work in an agricultural production site.



# Interactive Activity

- Injury incident just occurred – multiple scenarios
- News report about the incident
  - Each group has a different incident
- Media person - requested follow-up interview
  - Provided a list of questions
  - Will “call back” to do interview
- 20 minutes to prep answers
- Reporter will “interview” each table

# Questions?



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**JOHN DEERE**



**National Farm  
Medicine Center**

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