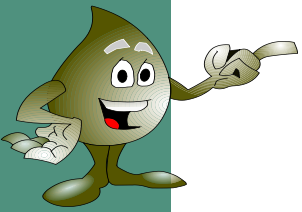


# Employing Youth in Agriculture

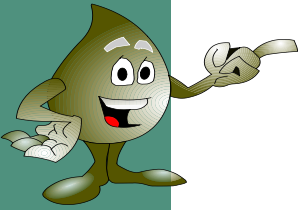
Keep Your Operation Legal and Your  
Young Workers Safe!





# Jeopardy – Pre-test!





# Situation #1

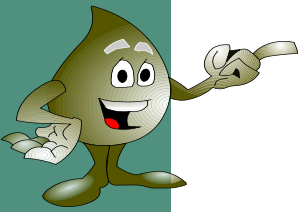
Robert, a 55 year-old farmer in Indiana, has a 1,000 acre cash grain farm with corn and soybeans as the primary crops. At busy times of the year Cody, a 14-year old neighbor, assists Robert with various tasks/jobs on the farm.

On a hot April day, Robert instructs Cody to take the tractor and do some tillage work in preparation of planting corn.



*Are there any issues with this?*

*Is it legal?*



## Situation #2

Tim, a 60 year-old farmer in Virginia, has a large cattle/calf operation. Additionally, he grows corn to feed the cattle and as a cash crop. At busy times of the year Sam, a 16-year old, assists Tim with various tasks/jobs on the farm.

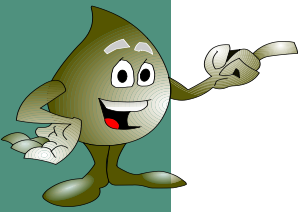


Tim asks Sam to put a bale of hay for a cow with a newborn calf that is in a separate pen from the rest of the cattle.

*Are there any issues with this?*

*Is it legal?*

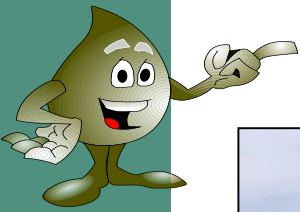




# Why Have Regulations Been Implemented to Protect Youth Working in Agriculture?

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# Most Hazardous U.S. Industries



**Agriculture  
20.5**



**Transportation &  
Warehousing  
12.6**



**Mining  
10.3**

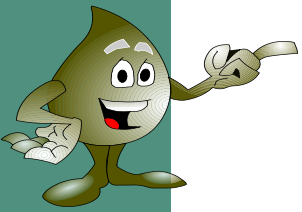


**Construction  
9.8**

Annual death rates per 100,000 workers

All industries combined = 3.0 / 100,000 workers

Motor vehicles = 12.85 / 100,000 population

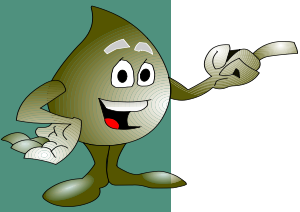


# 1 in 9 Farm Families are Affected by an Agricultural Injury or Fatality Each Year!

1 in 9 families







# Youth Workers Face the Same Hazards as Adult Farm Workers

**Hazardous machinery**



**Isolated workplaces**



**Working alone**



**Diverse workforce**



**Unpredictable animals**



**Agricultural chemicals**



**Adverse weather**



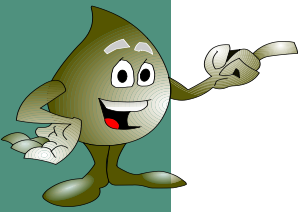
**Work and home same location**



**Limited access to medical services**

**Youth have a higher rate of work-related injuries and fatalities than adult workers.**



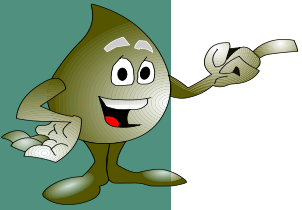


# Why are Youth at Greater Risk of Injury During Farm/Ranch Work?

- Lack of knowledge about hazards
- Lack of coordination
- Lack of experience



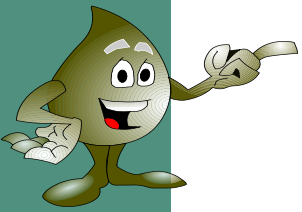
- Physical size
- Lack of maturity
- Lack of strength
- Lack of endurance



# Federal Laws that Impact Employment of Youth on Farms

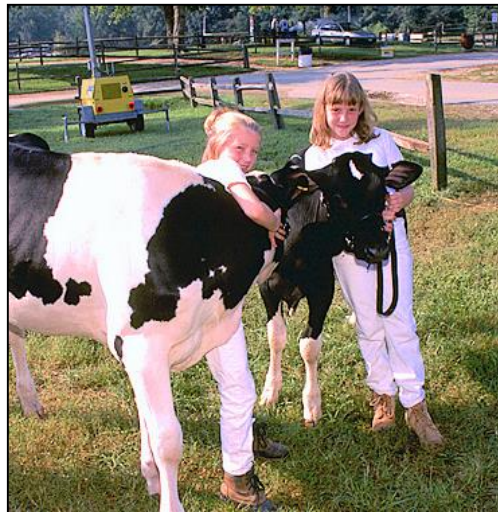


- Children of farm owners are exempt from FLSA, HOOA, and OSHA requirements
- All farms subject to FLSA and HOOA for non-family youth workers
- Farms with 11 or more employees subject to OSHA provisions plus FLSA and HOOA

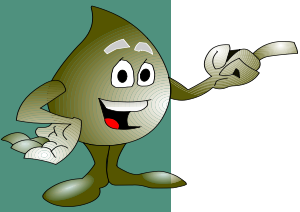


# General Legal Requirements for Youth under 16 Performing Hazardous Farm Work

- Minimum wage
- Restricted hours
- Cannot interfere with school
- Prohibited from performing certain hazardous jobs
- Required supervision
- Prohibited exposure to toxic chemicals

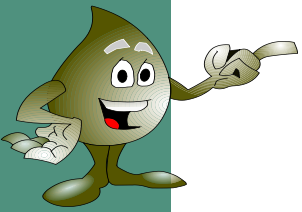




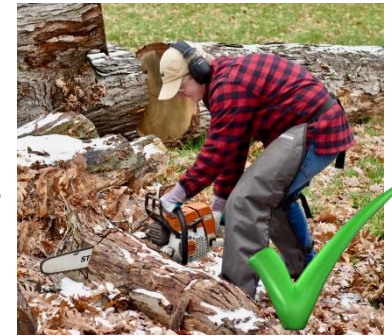


# What Specific Tasks are Prohibited by the **FLSA** for Youth Under 16?

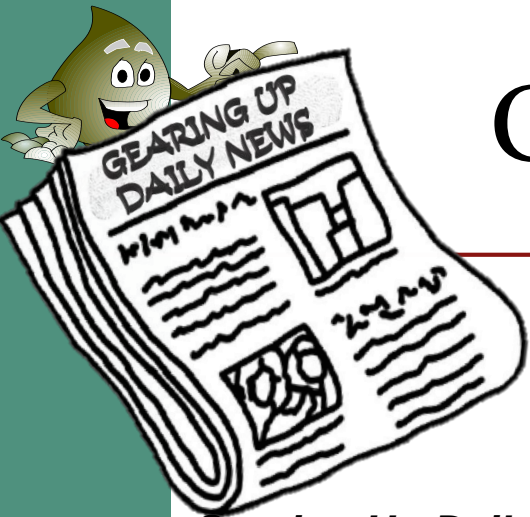




# All These Tasks have been Determined by the Secretary of Labor to be Hazardous for Youth under 16 to Perform for Hire on a Farm/Ranch







# Case study

## Local farmer cited for violation of Federal Hazardous Occupations Order

### *Gearing Up Daily News*

*Farmworkersville* – A 13-year old boy was still in critical condition Tuesday night after he was caught in a piece of farm equipment and seriously injured.

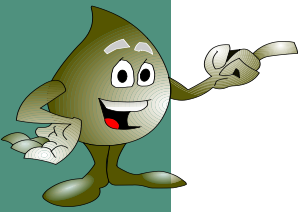
Johnny Peters was airlifted to Memorial Hospital in Mechanicsville on Monday evening and remained in the intensive care unit until late Tuesday.

He was working by himself at the time, unloading corn from a gravity box wagon using a PTO-operated auger, on the Johnson farm at 234 Clover Road, town of Farmworkersville. His employer, Bob Johnson, had finished his chores and went to check on the teen. He found Johnny entangled in the PTO shaft of the auger. He switched off the tractor, pulled him from the tractor's power take-off shaft, and then called 911 at 5:51 p.m.

Johnny Peters' clothing had become entangled in the rotating shaft. All of this clothing except his underwear was wrapped around the still-turning shaft that provided the power to operate the auger.

Across the state, three other children have been seriously hurt on farms in the past month- one of them killed, according to the State Extension Safety Specialist.



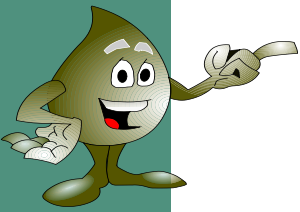


# Youth under 16 are **Not** Permitted to Handle, Mix, or Apply Ag Pesticides

- Applies to all products with signal words “Warning” or “Danger”
- Also, youth may not:
  - clean application equipment
  - dispose of or return empty containers
  - serve as flagman for aircraft applying chemicals

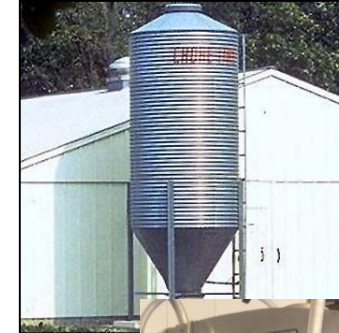


**NOTE: Many pesticides require applicator's license**

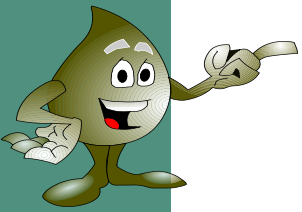


# Nearly All Confined Spaces Found on Farms are Off-Limits to Youth under 16, Including:

- Fruit, forage and grain storage that limits oxygen or has a toxic atmosphere
- Upright silos within two weeks of filling
- Silos with unloader in operating position
- Manure pit
- Horizontal or bunk silo while operating a tractor to pack silage
- Bulk storage tanks (*milk, feed*)



**NOTE:** There are no exemptions or training that will allow any youth to enter a confined space prior to age 16



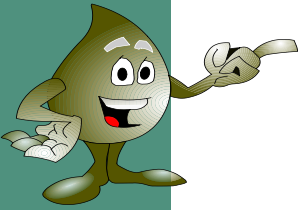
# Youth under 16 Cannot be Hired to Work at Heights over 20 Feet

- Areas of concern include:
  - Tall structures (*bins, silos, center legs*)
  - Tall equipment (*bucket lifts, combines*)
  - Ladders (*painting, trimming trees, harvesting fruit*)
  - Bunk silos
  - Hay mows and hay holes



**NOTE: Slips and falls are the #1 cause of non-fatal injuries in Agriculture**

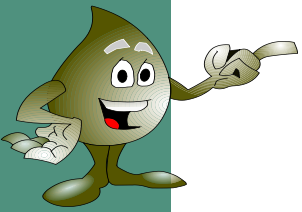




# Driving a Bus, Truck, or Automobile Requires Meeting Minimum Age Requirements and Licensing

- For hire, youth under 16 may not:
  - Ride on a tractor as passenger or helper
  - Operate a pickup or semi-truck





# Which Animals May a Youth under 16 NOT be Employed to Work with?

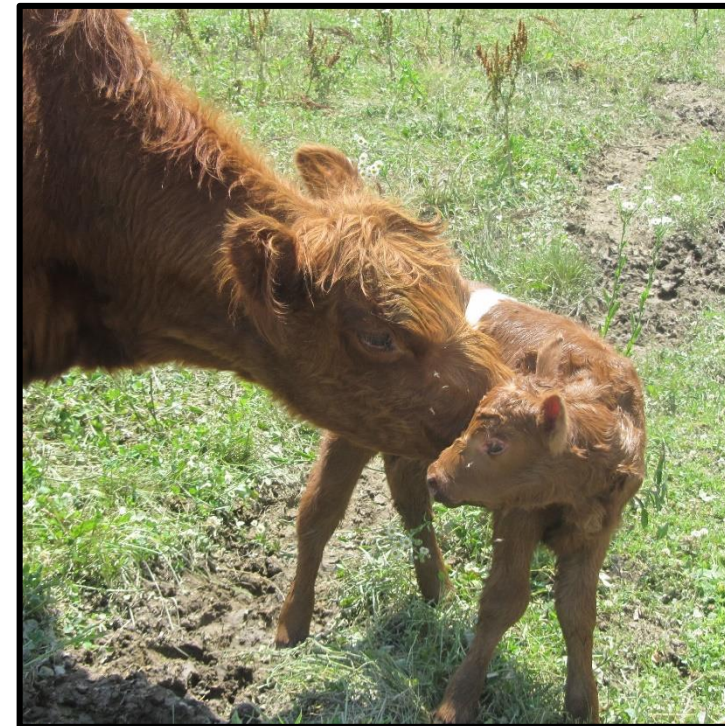


- Bull, boar or stud horse kept for breeding purposes



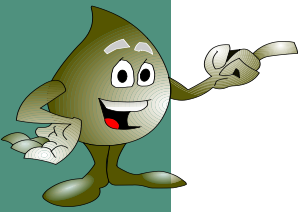
Photo by Greg Ortega

- Sows with baby pigs



- Cow with newborn calf





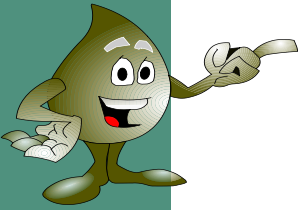
# Youth under 16 **Cannot** be Hired to Work around Timber with a Butt Diameter over 6 Inches

- Operating chainsaw
- Felling
- Bucking
- Skidding
- Loading
- Unloading



**NOTE:** None of the tasks listed are allowable for youth to perform even with an HOOA Certificate of Training





# Especially Hazardous Tasks 14 and 15 Year Olds may Perform for Hire on a Farm/Ranch, if Trained

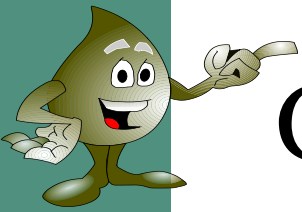


Operating a tractor over 20 PTO horsepower


Operating or assisting to operate certain machines including combine, forage harvester, hay baler, feed grinder, forage blower, auger, self-unloading wagon, powered post hole digger



**NOTE: The training exemption only applies to these tasks. The other specified “especially hazardous” tasks are prohibited for youth under 16, even if trained.**




# Gearing Up for Safety Program



## GEARING UP for safety

PRODUCTION AGRICULTURE SAFETY TRAINING FOR YOUTH


[Introduction](#) ▾
 [Lessons](#) ▾
 [Resources](#) ▾
 [Glossary](#)
[Curriculum Design](#) ▾
 [Evaluation](#) ▾
 [Appendices](#) ▾
 [About](#) ▾
 INSTRUCTOR



As you explore this site, you will find a wealth of educational and informational resources. If you are a secondary professional educator, this site provides you with:

- High quality lessons covering a wide range of Agriculture safety topics
- 15 core lessons for certification with a final exam covering all of the core lessons
- Over 30 student-focused activity sheets
- A glossary of over 400 Agriculture terms with pictures
- A 10-question review quiz for each lesson
- Nearly 100 case studies based on actual Agriculture injuries
- Supplemental lessons covering general disease prevention, fire, biosecurity in ag, farm stress, and more.


### PowerPoints on Safety




#### Agriculture today vs. 50-100 years ago

Activity

1. How was farming different 50 to 100 years ago?



### Video Safety Overview




### Activity Sheets


Name: \_\_\_\_\_

ACTIVITY WORKSHEET 8.2

#### The Five Senses that Can Warn of Potential Dangers

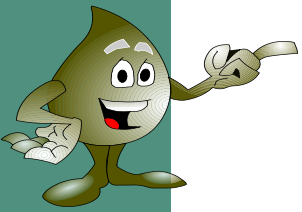
Directions: In the blank beside each picture showing a hazard, write the name of the sense most likely used to detect the hazard. Each sense should only be used once.

1.  Which sense is best?  
a) Touch  
b) Smell

2.  Which sense is best?  
...

FIVE SENSES

Hearing  
Smell  
Sight



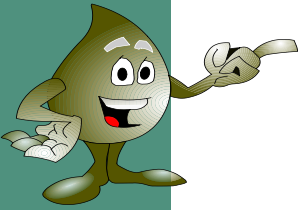
# Gearing Up for Safety: Production Agriculture Safety Training for Youth

- Curriculum meets current training regulations prescribed by HOOA
- Instructor resources and program administration materials
- 16 core lessons for certification
  - Full video instruction provided
- Additional supplemental lessons being added regularly
- All lessons include:
  - PowerPoint presentations with instructor notes
  - Student activity sheets and quizzes
  - Glossary of agriculture terms
  - Case studies



***This curriculum is ideal for all young and beginning farm workers, not just those seeking certification!*** 15-23

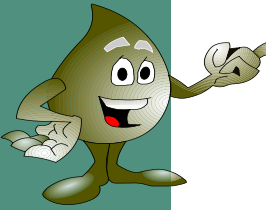




# Training/Certification Programs for Youth Farm Workers to Perform Certain Hazardous Tasks

- Training must be administered by:
  - Cooperative extension educator (*or*)
  - Agricultural science teacher
  - Volunteers or others may assist as instructors, but cannot certify training completion
  
- Applies only to 14 and 15 year-olds
  
- Basic requirements:
  - 4-H member or enrolled in agricultural science program
  - Minimum training hour requirements
  - Hands-on tractor operation evaluation

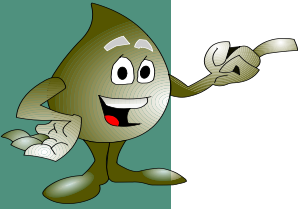




# Complying with Youth Labor Laws vs. Teaching Kids to Work Safely

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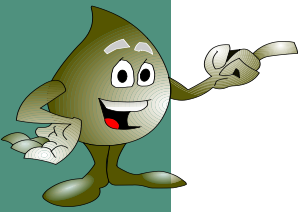
- Many youth workers exempt from legal requirements
- Most regulations affect under 16
- 16-20+ year olds also at risk
- Even if not required by law, training young workers (including your own kids) is important
  - Builds good safety habits and culture
  - Less likelihood of injury = reduced liability
  - More productive workers
  - The “right thing to do”



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# Examples of Powerpoint components





# Features That Reduce Potential of Tractor Upset

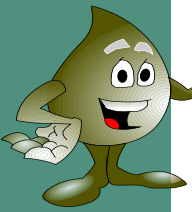
- Wide front end
- Adjustable rear wheel width
- Rear wheel weights
- Duals or wider tires



Animation – Tractor without duals  
[Click to play](#)



Animation – Tractor with duals  
[Click to play](#)



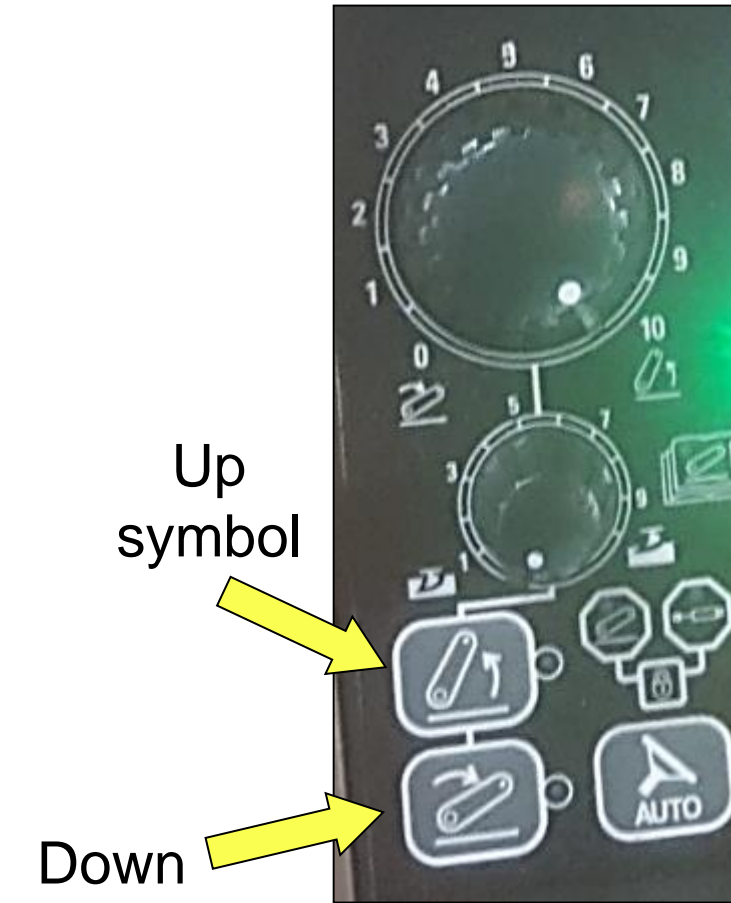
# Raising and Lowering the Three-Point Hitch Assembly



Top link

Lifting arms

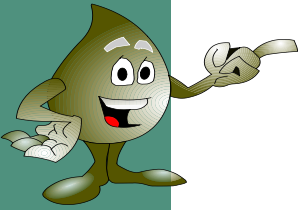
**3-Point Hitch**



Up symbol

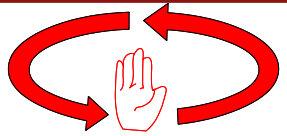
Down symbol

**Controls**

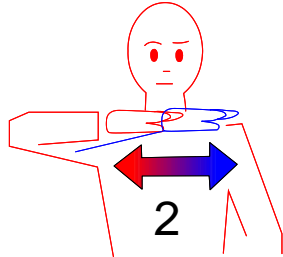


# Review of Hand Signals

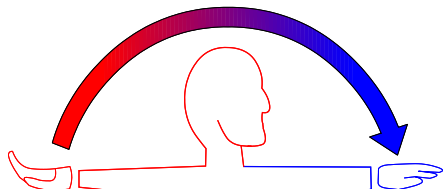
Activity



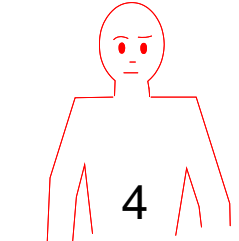
1  
Come to me  
or come help



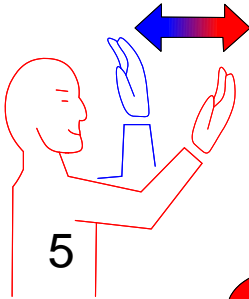
2  
Stop Engine



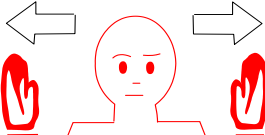
3  
Move out or  
take off



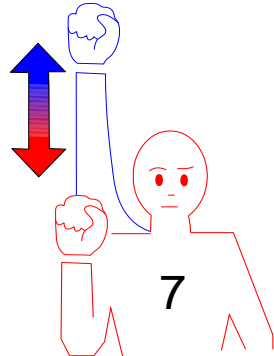
4  
Lower  
Equipment



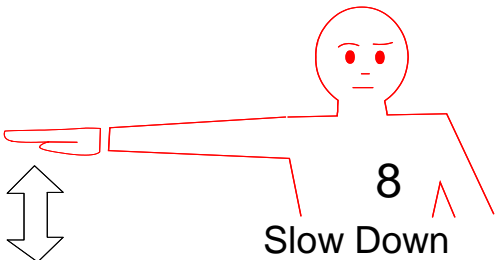
5  
Move towards  
me or follow me



6  
This far to go



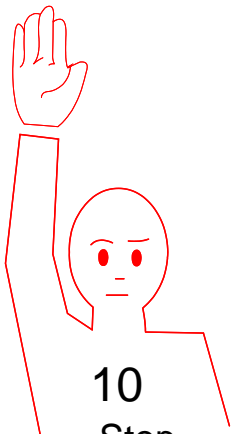
7  
Speed Up



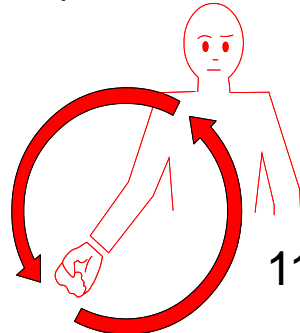
8  
Slow Down



9  
Raise  
Equipment

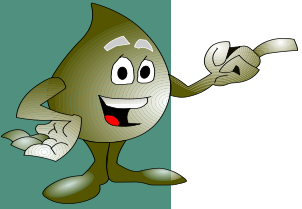


10  
Stop



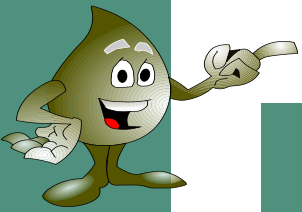
11  
Start  
Engine





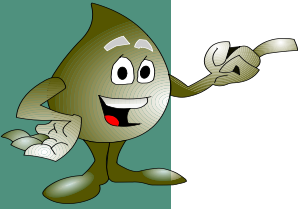
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# Instructor Led Videos



ety -  
are

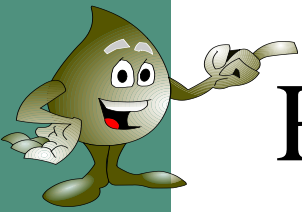
g Facilities



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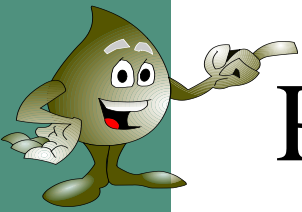
# Hands-on Activities and Demonstrations





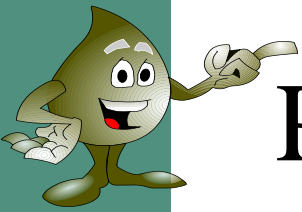
# Risk Taking





# PTO Incident Reaction Time






# Paper Activities and Worksheets



Draw a Line Matching the Universal Color Coding Used in a Typical Operator Station

Activity

Red 

adjust machine function

Orange 

machine ground motion

Yellow 

stop engine

Black 

engage powered components



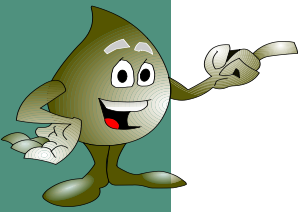
What are the **most common** hazards associated with an operating an agricultural tractor?

Activity



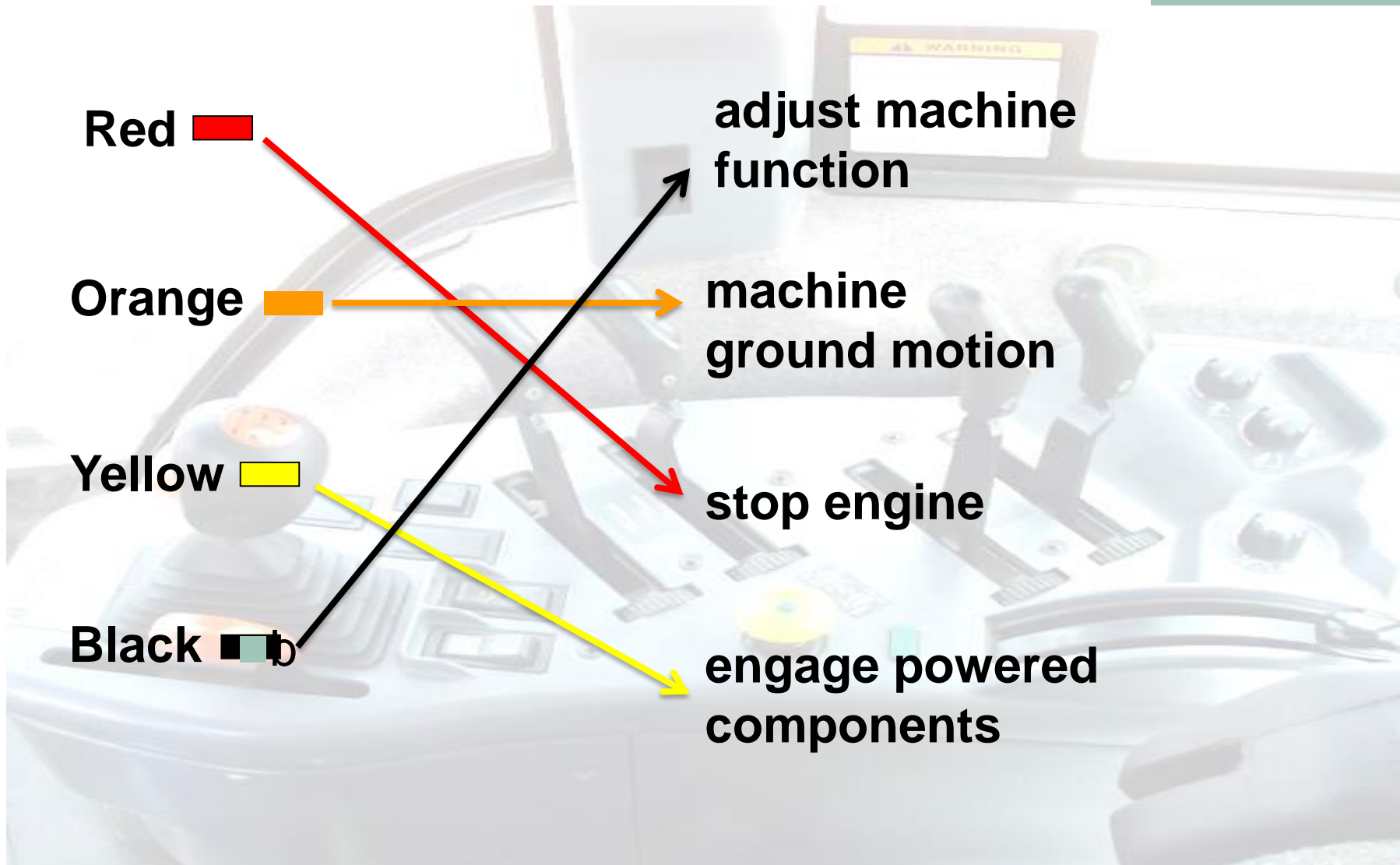
4-32

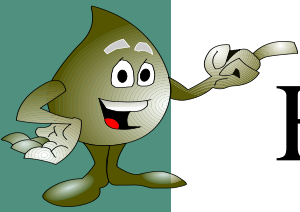




# Draw a Line Matching the Universal Color Coding Used in a Typical Operator Station

Activity





# Farm Safety Inventory



This inventory was developed by Purdue University's Agricultural Safety and Health program to serve as a simple, self-guided tool for conducting a whole-farm or ranch assessment in order to identify potential workplace hazards and unsafe work practices. It is based on past agricultural-related fatality and injury data, and addresses those hazards that have the highest potential for causing human injury or property losses. The inventory is available in a downloadable format so that copies are available for individuals to conduct their own assessments. No hazard assessment tool can be all-inclusive due to the wide diversity of enterprises that can be found in agricultural production, and each individual producer's

experience, skills, and work practices. If there is uncertainty concerning a specific hazard or practice, it would be appropriate to contact the insurance carrier, county Extension Educator, professional engineer or on-line sources for technical assistance. Feel free to add additional inventory items that address unique hazards identified during the assessment. An assessment of this type should not be a one-time occurrence, but should be repeated at least annually along with a record of the corrective actions needed and taken. A copy should be filed with the operation's other safety resources and could be beneficial in documenting efforts taken to enhance the safety and health of the workplace.

Farmer's/Rancher's/Grower's Name:	Date Inventory was Completed:
_____	_____
Address:	Person(s) Completing Inventory:
_____	_____
_____	_____

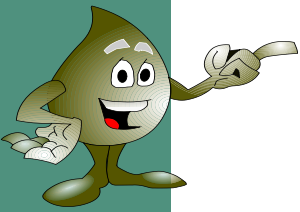
Items	OK	Corrective Actions Needed
_____ is part of the written plan.	<input type="checkbox"/>	
_____ is responsible for safety and policies for all those who work on the farm.	<input type="checkbox"/>	
_____ safety-related training, first-aid training, and safety policies are provided to all workers.	<input type="checkbox"/>	
_____ is conducted on a regular basis and all workers and attendees are notified.	<input type="checkbox"/>	
_____ if 16 are trained and certified in First Aid and CPR (HOOA).	<input type="checkbox"/>	
_____ provided an emergency action plan and instructions for evacuation during an emergency.	<input type="checkbox"/>	
_____ employees with safety responsibilities are clearly defined.	<input type="checkbox"/>	
_____ use of personal protective equipment is required for all workers.	<input type="checkbox"/>	
_____ safety facilities are provided for all workers.	<input type="checkbox"/>	
_____ proper safety practices are discussed during training.	<input type="checkbox"/>	
_____ of their rights and responsibilities are provided.	<input type="checkbox"/>	
_____ poster is displayed in a prominent location if the farm falls under the OSHA 10-hour rule.	<input type="checkbox"/>	



Items	OK	Corrective Actions Needed
_____ propelled equipment is used for purposes other than intended.	<input type="checkbox"/>	
_____ safety or be present during operation.	<input type="checkbox"/>	
_____ used to operate equipment.	<input type="checkbox"/>	
_____ raised position is used in low clearance areas.	<input type="checkbox"/>	
_____ in grain storage areas without proper ventilation.	<input type="checkbox"/>	
_____ operated inside of grain storage.	<input type="checkbox"/>	
_____ allowed to work with grain, silage, or animals.	<input type="checkbox"/>	
_____ are allowed to handle chemicals.	<input type="checkbox"/>	
_____ displaced or only partially displaced.	<input type="checkbox"/>	

Items	OK	Corrective Actions Needed
_____ fire extinguishers are provided and employees are trained in their use.	<input type="checkbox"/>	
_____ emergency response team or plan is established.	<input type="checkbox"/>	
_____ in each major area of the farm.	<input type="checkbox"/>	
_____ of two-way communication is established.	<input type="checkbox"/>	
_____ have been tested in the event of an emergency.	<input type="checkbox"/>	
_____ has been established to gather in the event of severe weather.	<input type="checkbox"/>	





For more information about Gearing Up:

# www.GearingUp.info

- FREE download of all lessons and program resources
- For more details about Gearing Up or questions about youth employment in agriculture contact:

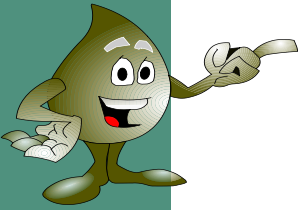
*Roger Tormoehlen  
Purdue Agricultural & Biological  
Engineering  
765-494-8424*

[agsafety4youth@lists.purdue.edu](mailto:agsafety4youth@lists.purdue.edu)

Welcome to the Gearing Up for Safety: Production Agriculture Training for Youth educational website! We are delighted you are here. As you explore this site, you will find a wealth of educational and informational resources. If you are a secondary professional educator, this site provides you with:

- 15 high quality PowerPoint presentations covering a wide range of Agriculture safety topics
- Over 30 student-focused activity sheets
- A glossary of over 400 Agriculture terms with pictures
- A 10-question review quiz for each of the 15 PowerPoint lessons
- Nearly 100 case studies based on actual Agriculture injuries





# Current List of Gearing Up Lessons

## **CORE Certification Lessons**

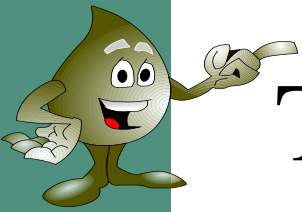
1. General Farm and Ranch Safety Overview
2. Tractor Components Basics
3. Tractor Pre-Operational Procedures
4. Tractor Operation Basics
5. Tractor-Powered Implements
6. Self-Propelled Agriculture Equipment
7. Operating Agriculture Equipment on Public Roads
8. Repairing Agriculture Equipment
9. ATV & Utility Vehicle Safety Operation
10. Skid Steer Loader, Telehandler and Forklift Operation
11. Confined Spaces in Agriculture
12. Grain Storage and Handling Facilities
13. Working with Animals
14. First-Aid & Emergency Response
15. General Farm and Ranch Hazards
16. Hands-On Tractor Operation

## **Supplemental Lessons**

- S1. General Disease Prevention for Young Agriculture Workers
- S2. Preventing Fire and Burn Injuries on Farms and Ranches
- S3. Biosecurity in Agriculture Operations
- S4. Farm Youth Stress Management

## **Currently in development**

- Green Industry (3 lessons)
- Agricultural Waste Management
- Trailer operation and safety



# Thank you!

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