SOUTHEAST MISSOURI STATE UNIVERSITY

DAVID M. BARTON

AGRICULTURE SAFETY PLAN

PREPARED BY

RISK MANAGEMENT
AND
DEPARTMENT OF AGRICULTURE

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AGRICULTURAL SAFETY PLAN

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Agricultural Safety Plan

Revision 1

Signature Page

The Southeast Missouri State University Agricultural Safety Plan has been approved by the following individuals:

__________________________  Date
Safety Specialist

__________________________  Date
Chair of Agricultural Department

__________________________  Date
Director of Facilities Management
1.0 SCOPE

1.1 SOUTHEAST MISSOURI STATE UNIVERSITY STATEMENT OF RESPONSIBILITY

It is the responsibility of Southeast Missouri State University, as an employer, to take every reasonable precaution to provide a work environment that is free from recognizable hazards for its employees.

Furthermore, OSHA, the Federal Occupational Safety and Health Administration, has set standards for the regulation of the Agricultural Industry to ensure that the necessary work practices, procedures and policies are implemented to protect all employees working in University owned and operated farms.

Southeast Missouri State University and its employees have the responsibility to be well informed regarding hazardous chemicals and risks associated with the agricultural environment. This document is intended for University-wide compliance with the OSHA Agricultural Standard and will serve as a broad-based Agricultural Safety Plan (ASP) for all University owned and operated farms.

1.2 THE OSHA AGRICULTURAL STANDARD

The purpose of the OSHA Agricultural Operations Standard 29 CFR, part 1928 is to provide for the protection of employees from the hazards associated with moving machinery parts of farm field equipment, farmstead equipment, and cotton gins used in any agricultural operation. This standard applies to covered equipment, farm field equipment, farmstead equipment and cotton gins.

1.3 SCOPE OF APPLICATION

This document serves as the written guide for Southeast Missouri State University compliance to the Agricultural Standard and the Agricultural Safety Plan (ASP) requirements contained therein. All units at Southeast Missouri State University engaged in farm activity are required to comply with this document.

The primary objective of this document is to provide a general guide for safe agricultural practices. The Agricultural Safety Plan establishes the basic safety principles for agricultural equipment and work practices that are capable of protecting employees from physical and health hazards associated with agricultural work.

This document is intended only to highlight those safety measures necessary for achieving a safe and healthy work environment. Where the extent of the hazards are not adequately addressed by this general document, specific Standard Operating Procedures must be developed by the Department of Agriculture chairperson.
This document will hereafter be known as the Southeast Missouri State University Agricultural Safety Plan (ASP).

1.4 RESPONSIBILITY

1.4.1 Risk Management (RM) Department
The Office of Risk Management shall be responsible for assuring University compliance with State and Federal standards and for preparing any reports, as established in the university’s Occupational Safety and Environmental Health Policy. RM is responsible for auditing the University’s compliance with the OSHA Agricultural Standard and the Agricultural Safety Plan required therein.

1.4.2 The Chair of the Agricultural Department
The Chair, along with RM, can assign areas of responsibility to units, project directors, supervisors and other individuals as necessary, to implement and carry out the provisions of the ASP. The Chair will share in responsibility for oversight of the Southeast Missouri State University ASP, including implementation and documentation of the training programs. RM and the Chair will serve as the on-campus authority and source of information for the OSHA Agricultural Standard and the Southeast Missouri State University ASP.

1.4.3 Farm Managers
The farm manager will be responsible for: (1) conducting on-farm equipment training, (2) assigning farm workers and students to tasks requiring usage of field equipment and farmstead equipment, (3) reporting accident incidents or unprofessional student conduct which increases the likelihood of an accident to the chairperson, and (4) working cooperatively with the Department of Agriculture at Southeast MO State University to promote workforce safety.

1.4.4 University Farm Employees
Individual farm employees are responsible for their own safety. All individuals performing agricultural work must accept a shared responsibility for operating in a safe manner once they have been informed about the extent of risk and safe procedures for their activities. They also have the responsibility to inform their supervisors of accidents and work practices or working conditions they believe hazardous to their health or to the health of others.

1.4.5 Student
While students are not covered under the provisions of the OSHA Agricultural Standard, students should be made aware of risks and hazards associated with agricultural work and should be provided with information and equipment to protect themselves from those hazards.
1.4.6 Facilities Management

Through Hazard Communication training, the Facilities Management staff who work at the University Farms are informed of the potential hazards that may exist in their work environment. All individuals performing work on the University Farms must accept a shared responsibility for operating in a safe manner once they have been informed about the extent of risk and safe procedures for their activities. They also have the responsibility to inform their supervisors of accidents and work practices or working conditions they believe hazardous to their health or to the health of others.

1.5 EMPLOYEE RIGHTS

It is the employee's right to receive information about the known physical and health hazards in their work areas and to receive adequate training to work safely in these areas. Employees have the right to work in a safe environment and inform the Chair of Risk Management about any possible potential risks observed while working.

The Southeast Missouri State University Agricultural Safety Plan must be readily available to employees and employee representatives through their supervisor or departmental office.

1.6 ANNUAL REVIEW

The Southeast Missouri State University Agricultural Safety Plan will be reviewed annually from its effective date by the Chair and RM.

1.7 EMPLOYEE INFORMATION AND TRAINING

Employees must have access to information and training to ensure that they are apprised of the hazards in the work area. Such information must be provided at the time of an employee's initial assignment to a work area where hazards are present and prior to assignment involving new exposure situations. Employees should receive annual refresher information and training to ensure that they are aware of the risks.

Information provided by the Department of Agriculture to employees must include:

- The contents of the OSHA Agricultural Standard.
- Signs and symptoms associated with exposures to hazardous chemicals used in the agricultural setting (available on Material Safety Data Sheets).
- The location and availability of known reference materials on the hazards, safe handling, storage and disposal of hazardous chemicals found on the farm, including, but not limited to, Material Safety Data Sheets received from the supplier.

All of the above information is available from RM or the Chair, and may take the form of individual instruction, group seminars, audiovisual presentations, on-line material, or any combination of the above. Site-specific training will be provided by the Chair or RM.

**Training:** General awareness training provided by RM and the Chair of Agriculture to Farm employees will include:
General physical and health hazards in the work area.

The measures employees can take to protect themselves from these hazards, including specific procedures the University or department has implemented to protect employees such as appropriate work practices, emergency procedures, and personal protective equipment to be used.

The applicable details of the Southeast Missouri State University ASP.

**Site-specific training** provided by the Farm Managers to employees will include:

- Site-specific standard operating procedures.
- Specific physical and health hazards of machinery.
- Specific physical and health hazards of chemicals in the work area (available on Material Safety Data Sheets).
- Specific standards for livestock handling.

**Documentation.** General awareness training required by the ASP will be documented by the Chair and RM. The training certification form in Appendix A will be filled out by employees at the time of training. The Department of Agriculture will maintain these training forms in the department’s main (on-campus) office. Site-specific training must be documented and maintained by the supervisor and be available to representatives of RM, the Chair or other regulatory officials upon request.

## 2.0 RECORD KEEPING

It is required that records of training for individual laboratories be retained by the Chair of the Department of Agriculture.

Accident records for employees should be written and retained within the department, and the original forwarded to the Human Resources Department for submittal to the State of Missouri Central Accident Reporting Office (CARO).

The amount of time a unit chooses to retain training records is not specified in the Agricultural Standard. It is recommended by this document that such records be retained for at least one year after an employee leaves a position. Ideally, training records should be retained indefinitely.
3.0 STANDARD OPERATING PROCEDURES

This procedure will increase protection of University Farm employees by following Occupational Safety and Health Administration rules and regulations. The purpose of this procedure is to reduce the risks that are associated with moving machinery parts of farm field equipment, farmstead equipment, and farm animals. The Standard Operating Procedures in this document specify minimum regulations and recommendations.

3.1 GENERAL SAFETY PRINCIPLES

The following guidelines have been established to minimize hazards and to maintain basic safety on the farms.

A. Examine the known hazards associated with the machinery and materials being used. Never assume all the hazards have been identified.
B. Read and comply with the operator’s manual for each piece of farm equipment.
C. Carefully read the label before using an unfamiliar chemical. When appropriate, review the Material Safety Data Sheet (MSDS) for special handling information.
D. Determine the potential hazards and use appropriate safety precautions before beginning any new operation.
E. Be familiar with the location of emergency equipment and follow emergency response procedures.
F. Avoid startling or distracting other workers when they are operating machinery or working with animals.
G. Use equipment and chemicals only for their intended purposes.
H. Always be alert to unsafe working conditions or actions, and call attention to them so that corrective action can be taken.

3.2 GENERAL EQUIPMENT SAFETY

The following practices have been established to protect agricultural employees from risks associated with the use of farm equipment:

A. Read and comply with the operator’s manual for specific safety instructions for each piece of farm equipment.
B. Prepare for safety by wearing appropriate clothing, having enough rest, not drinking alcohol, and ensuring that all workers have been trained and are capable of safely using the farm equipment.
C. Keep all guards, shields, and access doors in place when the equipment is in operation.
D. Be aware of what you are doing and where you are going.
E. Adjust equipment speed to fit operating conditions.
F. Keep children and other people away from the working area.
G. Take breaks from work, as necessary.
H. Always stop the engine, disconnect the power source, and wait for all moving parts to stop, before servicing, adjusting, cleaning, or unclogging equipment.
I. Display the slow moving vehicle emblem on equipment driven on public roadways.
J. Allow the engine to cool before refueling.

3.3 FARMSTEAD EQUIPMENT SAFETY

Farmstead equipment is agricultural machinery that is normally stationary. This includes materials handling equipment and accessories for such equipment whether or not the equipment is an integral part of a building.

A. Farmstead equipment should have an audible warning device to indicate that the machine is about to be started. Refer to the operator’s manual for specific safety instructions for each piece of equipment.

B. Keep all guards, shields, and access doors in place when the machine is in operation.

C. Lock out electrical power before performing maintenance or service.

3.4 ANIMAL HANDLING/LIVESTOCK SAFETY

Farm animals can be very dangerous if not handled properly. While generally, the injuries received from animals are not as severe as some injuries received from a machine, farm animals are still responsible for many disabling injuries. The following practices have been established to protect agricultural employees from risks associated animal handling:

A. Use adequate restraining and handling facilities when working with animals.
B. Always leave yourself an escape route when working with animals.
C. Do not put your hands, legs, or feet in gate or chute closures where you may become pinned or crushed by a large animal.
D. Reduce the chance for slips and falls by keeping handling areas free from debris.
E. Stay away from frightened, sick, or hurt animals whenever possible.
F. Take care around animals with young offspring.
G. Avoid loud noises and quick movements when working around the animals.
H. Be patient with animals, never prod an animal when it has no place to go.
I. Unless absolutely necessary, do not approach an animal from behind.
J. If bitten, scratched or seriously injured by any farm animal, follow proper first aid and medical procedures. If you do not know the procedures contact your supervisor.
K. Wear protective clothing around animals, as appropriate.
L. Do not handle livestock when you are alone.

3.5 FUEL

Fuels are usually some of the most flammable products used around the work area. The result of fuels catching flame can result in large explosions and serious injuries. Whenever working around fuels, be sure to observe the surrounding region and be sure there are no open flames or any machinery running that has a possibility of sparking and igniting the fuel.

A. As an employee, you may not have control over the location of the storage of fuel, however the fuel storage area should not be close to any other buildings or work area where people would be regularly present. If you believe the fuel storage area is in an unsafe location, please inform Risk Management of your concerns.
B. When refueling, be very cautious as fires and explosions are always possible. Make sure the engine is off, remove the fuel cap slowly, allowing any pressure to be released. If any fuel is spilt, allow time for the vapors to evaporate before starting the engine. The time this takes will vary depending on how much fuel was spilt.
C. All Fuel containers must be properly labeled. Diesel containers should be painted green and gasoline containers should be painted red.
D. When transferring fuel, use containers with closeable tops or spouts to prevent spills. Special safety containers have pressure relief valves that open when the pressure reaches three to five pounds per square inch preventing the container from exploding.
E. Check fuel storage tanks regularly to catch any leaks that may occur. If you ever find a leak coming from a fuel storage tank, inform your Supervisor and Risk Management immediately.
### 3.6 PESTICIDE/CHEMICAL SAFETY

Pesticides are chemicals that protect crops and livestock from rodents, insects, disease, or weeds. Pesticides include rodenticides, insecticides, herbicides, and fungicides. Pesticides are poisonous and can be extremely dangerous to humans. Before applying pesticides, always ensure your safety, the safety of others and the safety of the environment.

A. Pesticides are not to be applied by student workers.
B. Large applications will be contracted out to a licensed pesticide applicator.
C. Do Not Transport, Mix, or use any agricultural chemicals unless you can summon help, if needed.
D. Keep an ample supply of water handy to flush exposed areas if a spill occurs.
E. Check all pesticide equipment before you use it to ensure proper working condition.
F. Read pesticide labels carefully. Follow the label directions when mixing, applying, storing, or disposing of pesticides.
G. Wear PPE to prevent dermal, inhalation, and mucous membrane exposure.
H. Do not eat, drink, smoke, or chew tobacco when handling pesticides.
I. Do not use agricultural pesticides around the home or office.
J. Always handle pesticides downhill from wells, cisterns, sink holes, ditches or standing water.
K. Pesticide containers should always be properly labeled.
L. Properly dispose of excess pesticides through Risk Management.

### 3.7 RESTRICTED USE PESTICIDES

Restricted use pesticides (RUP) are for retail sale to, and use by, only certified applicators or persons under their direct supervision and only for those purposes covered by the applicator’s certification.

#### 3.7.1 Restricted Entry Intervals

The REI is the time immediately after a pesticide application, when entry into a treated area is restricted. The amount of time required is based on the toxicity of the compound that was used. During an REI, do not enter a treated area or contact anything treated with pesticides to which the REI applies.

The REI periods are as follows:

<table>
<thead>
<tr>
<th>Toxic Category</th>
<th>Signal word</th>
<th>REI</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Danger</td>
<td>48 hours</td>
</tr>
<tr>
<td>II</td>
<td>Warning</td>
<td>24 hours</td>
</tr>
<tr>
<td>III</td>
<td>Caution</td>
<td>12 hours</td>
</tr>
</tbody>
</table>
A. The REI and signal words are based on the active ingredient that requires the longest restricted re-entry period.

B. When two or more pesticides are applied at the same time, but have different REIs, it is important to follow the longest REI of all the pesticides in use.

There will be a warning sign at the field where the pesticides have been used. See appendix A for an example of the posted sign.

*Note: Avoiding contact by using personal protective equipment does NOT qualify as no-contact early entry!

For early entry with contact, you must:

A. Wait at least four hours after the pesticide application is completed before entering.

B. Enter and work for only one hour within the first 24 hours when performing short-term tasks.

C. Wear the personal protective equipment specified on the pesticide label for early entry tasks.

D. Follow any other restrictions specified on the pesticide label for early entry tasks.

3.7.2 Record Keeping

The record keeping form shall be kept in the Agricultural Department at all times. Appendix B shows an example of this form. The records must contain:

A. The certified applicator’s name and certification number, if uncertified, then it must also have the record of the name and number of the certified applicator who supervised the application.

B. The month, day, and year of application.

C. The crop, commodity, or site to which the pesticide was applied.

D. Stored products, such as grain held in bins.

E. The brand or product name of the federally restricted use pesticide and the product’s EPA registration number.

F. The total amount of pesticide applied, not including the quantity after water or other substances were added.

G. The size of the treated area.

H. The location of the application, which would give an exact area of the area the pesticide was applied to, for future identification.
3.8 FERTILIZER SAFETY

A. Ammonia fertilizers are widely used because of their effectiveness in getting large amounts of nitrogen into the soil. Anhydrous ammonia fertilizer is essentially dry ammonia gas compressed into liquid form. This material is very harmful if accidentally spilled or sprayed on body surfaces.

B. Always use appropriate personal protective equipment and exercise rigorous care when handling, applying, and storing fertilizer.

C. Inspect equipment before each use.

D. Exercise care in the handling and use of ammonia fertilizer.

3.9 COMPRESSED GASSES

Special systems are needed for handling materials under pressure. Cylinders pose mechanical, physical and/or health hazards, depending on the compressed gas in the cylinder.

A. Cylinders with regulators must be individually secured. Only cylinders with valve protection caps securely in place may be safely gang-chained (chained in groups).

B. When storing or moving a cylinder, have the valve protection cap securely in place to protect the stem.

C. Cylinders must be secured in an upright position at all times. Use suitable racks, straps, chains, or stands to support cylinders against an immovable object, such as a bench or a wall, during use and storage. Do not allow cylinders to fall or lean against one another.

D. Use an appropriate cart to move cylinders.

E. Never bleed a cylinder completely empty. Leave a slight pressure to keep contaminants out.

F. Always use appropriate gauges, fittings, and materials compatible with the particular gas being handled.

3.10 WORKING ALONE

Avoid working alone whenever possible.

3.11 STORAGE AND DISPOSAL OF HAZARDOUS WASTE

For guidelines on the storage and disposal of hazardous wastes from laboratory operations at Southeast Missouri State University, refer to the Southeast Missouri State University Waste Disposal Guide. Copies of this document are available from RM.
KEEP OUT! DANGER
PESTICIDES

NO RE ENTRY

# of HOURS _______
DATE: ________
TIME : __________
# Restricted-Use Pesticide Recordkeeping Form

Applicator’s name ___________________________________________________

Applicator’s certification number _______________________________________

<table>
<thead>
<tr>
<th>Month/day/year</th>
<th>Crop, commodity or site</th>
<th>Pesticide brand/product name</th>
<th>Total amount(product) applied</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Pesticide EPA registration number</th>
<th>Size of area treated</th>
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<td></td>
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</table>

**Field location (Choose one of four below)**

Field map diagram:

```
County/range/township/section__________________________
FSA/NRCS ID system__________________________
Legal property description__________________________

ID system using maps and/or written description____
```

NOTES:_________________________________________________________
________________________________________________________________
________________________________________________________________
________________________________________________________________
________________________________________________________________

*Notes are optional and could include information such as product formulation and concentration, wind speed and direction, weather, crop status, pest development stage and population density, soil type, equipment used, nozzle type, gallons per acre, application pressure, etc.*

Appendix B