

# Ensuring Pesticide Compliance by Partnering Regulatory Programs with Extension

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## Abstract

A farm employee pesticide exposure incident in early 2006 led to a comprehensive review of the University of Florida's compliance with state and federal pesticide regulations at 15 off-campus research and demonstration farms. Joint inspections by state regulators and extension specialists provided important feedback on measures the University farms needed to enact to fully comply with the pesticide regulations. From these voluntary inspections, the University of Florida developed and implemented short- and long-term compliance strategies to help ensure proper training for people using and working around pesticides on University farms.

**Keywords:** pesticide, exposure, review, compliance, regulations, laws, Florida, inspections

## Introduction

In late 2006, the University of Florida's Institute of Food and Agricultural Sciences (University) and the Florida Department of Agriculture and Consumer Services (Department) reviewed the use of pesticides at the University's 15 off-campus research and demonstration farms.

The in-depth review was sparked by a self-reported farm employee exposure incident that occurred in the spring of 2006. The University and the Department worked together to investigate the exposure incident, and shared their results with University officials. The University requested a more intensive follow-up review of each University farm.

## Methodology

Pesticide field inspectors conducted a compliance assistance inspection and review at each of the 15 farms. The regulatory inspection was conducted by a state pesticide inspector accompanied by a local county extension agent. The inspectors' highest priority was to determine the degree to which each University farm complied with state and federal pesticide regulations. Inspectors asked about pesticide certifications held by the employees at each farm. At each farm, the state inspector and the county extension agent interviewed employees and pesticide applicators. The inspections were similar to those conducted at commercial agricultural businesses.

The inspection focused on applicator licensing, restricted use pesticide

recordkeeping, storage and mixing areas, the working condition of application equipment, and handling activities (e.g., triple-rinsing and use of personal protective equipment). Additionally, inspectors assessed each farm's compliance with the federal Environmental Protection Agency's Worker Protection Standard. This part of the inspection assessed the availability of decontamination supplies, whether workers and handlers had been properly trained, the types of information posted for employees, and how emergency assistance was to be given to employees in the event of an accident (U.S. EPA, 2005). The inspectors reviewed

documents and interviewed field workers and pesticide handlers to determine the extent to which farm managers were complying with the Worker Protection Standard.

### Results

The inspectors found one or more violations at 8 of the 15 off-campus farms (53 percent). A total of 36 violations were recorded during the joint regulatory and extension inspection (Table 1). While the inspections were voluntary, each farm with a documented violation received a follow-up letter from the Department advising the farm to correct the violation(s).

**Table 1.** Type and number of violations found at University of Florida farms.

<b>Pesticide Use Inspection Report</b>	
<b>Citation Category</b>	<b>Number of Violations</b>
Restricted Use Pesticide Records	2
Application/Labeling	
• Improper Use Rate	3
• Application Site/Crop Not on Label	2
• Not Wearing PPE Listed on Label	2
• No Restricted Use Pesticide License	1
<b>Florida-Specific Rules</b>	
<b>Citation Category</b>	<b>Number of Violations</b>
Organo-Auxin Herbicide Rule	3
Methyl Bromide Rule	1
<b>Worker Protection Standard</b>	
<b>Citation Category</b>	<b>Number of Violations</b>
Information at a Central Location	9
Decontamination Sites	6
Pesticide Safety Training	4
Personal Protective Equipment	2
Equipment Safety	1

The two most commonly cited violations related to following pesticide label requirements and, under the EPA's Worker Protection Standard, the lack of pesticide application information provided to workers at a central location.

University farms immediately corrected infractions of the Worker Protection Standard dealing with decontamination supplies, central information display, and safety training, and thereby came into compliance with the standard. Several violations were corrected by adding the contact information and phone number for the nearest emergency medical facility to the farms' EPA safety posters. Farms violating the rule requiring proper decontamination supplies corrected the violations by placing a container with the needed supplies in a vehicle or within the application sprayer. Violations involving faculty and staff members who lacked written verification that they were trained according to the Worker Protection Standard will be corrected in the future by designating a staff person at each farm to ensure that each employee who falls under Worker Protection Standard regulations receives training and that the training is documented in writing.

Also in the future, an annual in-house inspection will review the farms' pesticide operations. The University's long-range plan is to exceed regulatory compliance standards.

In addition, a number of policies, programs, and activities are being put in place to support the farms' efforts to upgrade their compliance:

- The University now requires that all employees who handle concentrated pesticide products become certified and licensed.
- To support ongoing Worker Protection Standard training, the Pesticide Information Office created a secure Web log-in for University of Florida farm employees. The link from the campus to the farm allows employees to access an EPA-approved Worker Protection Standard training video.
- Extension agents are conducting Worker Protection Standard training on several of the farms. Also, some extension agents are conducting walk-through compliance inspections with farm supervisors.
- The University created a Web-based, narrated educational program that allows farm supervisors to conduct their own pesticide compliance inspections. This self-assessment program incorporates the same forms used by state pesticide regulators.
- The Pesticide Information Office created an automated email service that will improve communication between the office and licensed pesticide applicators at each farm regarding pesticide rule changes, the availability of training classes, and other information pertinent to the University farms.
- The Pesticide Information Office participates in safety days held for the University faculty and staff by the University of Florida

Environmental Health and Safety Division as part of an annual pesticide safety review.

- The Pesticide Information Office also is developing a DVD with field footage that demonstrates fumigant application equipment and safety practices.
- University administrators are considering hiring part-time staff to conduct additional inspections on the farms.

### Conclusions

The joint regulatory and extension inspection program helped to further define short- and long-term compliance goals for each of the University farms. Obviously, the short-term goal is that all University farms comply with pesticide laws and regulations. It is critical that University of Florida farms maintain credibility among farmers and the commercial agricultural community by setting a high standard in pesticide use and by following all applicable laws and regulations.

A key component to short-term compliance and the legal use of pesticides is ensuring that University faculty and staff members obtain the proper pesticide certification credentials. The review found that University employees were properly credentialed except for fumigation licenses. To address this issue, the University required all faculty and staff members handling fumigants to attend one of three all-day training sessions. Each session included classroom lectures and hands-on instruction. The classroom activity covered University pesticide policies, properties of fumigants, and the

handling and application of fumigants. The hands-on instruction demonstrated fumigation equipment through simulated applications.

Subsequently, University administrators encouraged affected employees to add fumigation certification to their licenses.

The compliance assistance visits were a generally positive experience for the employees of the University farms. The experience allowed for an open interaction among the farm employees, extension educators, and the state's pesticide inspectors. Dialog among the parties alleviated confusion, particularly about the requirements of the Worker Protection Standard.

The compliance assistance program is an example of how extension can work cooperatively with regulators to educate pesticide applicators on the safe and proper use of pesticides. Such a program provides an educational opportunity for all extension workers who have pesticide training responsibility or who supervise employees who work in fields treated with pesticides. An outcome of the inspections was a closer working relationship between county extension agents and farm managers.

### **Acknowledgements**

The authors acknowledge the involvement, cooperation, and commitment of administrators of the University of Florida and the Florida Department of Agriculture and Consumer Services. In addition, the authors thank the state pesticide inspectors and local extension agents for helping to improve compliance and safety at the University of Florida farms.

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