



# Small Farm Integrated Pest Management For Underserved Audiences in Mississippi

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## Introduction

Small farmers in Mississippi and other southeastern states are more vulnerable to losses due to lack of integrated pest management (IPM) knowledge, limited resources, and challenging circumstances for managing plant pests. Alcorn State University is taking the lead in integrating its research, educational, and extension program to address the IPM concerns of underserved communities. To identify small farmers plant health management concerns, (IPM) workshops and farm visits were conducted to interact and dialogue with a diverse group of underserved small farmers to identify problems of multiple agricultural systems targeting small farms. In addition to the workshops, a preliminary plant pest survey was conducted on small farms in central and southwest Mississippi, summer 2023.

## Small Farm IPM for Underserved Communities in Mississippi

### Plant Diseases and insect pests impacting Small farmers



Survey of Plant Diseases and Pests Impacting Specialty Crops of Small Farmers in Mississippi



Southern Blight on cantaloupe caused by *Sclerotium rolfsii*



Fire blight on pears (*Erwinia amylovora*)



Tomato Hornworm (*Manduca quinquemaculata*)

## Impacts

- Increase knowledge of small farm IPM opportunities and challenges to a diverse group of stakeholders.
- Seven small farms were surveyed in Adams, Claiborne, Hinds, Forest and Pearl River counties June-July 2023.
- A wide variety of fungal plant diseases were identified such as southern blight, early blight, Cercospora leaf spot on squash.
- Bacterial diseases identified included fire blight on pears, bacterial leaf spot on peppers, and pierce's disease on muscadine grapes.
- Over 30 fungal morphotypes were isolated and these cultures will be sent for DNA identification.
- Student Research and Extension Internships in Small Farm IPM Targeting Underserved Communities

## Small Farm IPM Building Sustainable Food Systems



## Training The Next Generation of IPM Scientist



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## Alcorn State University Research and Extension Outreach Sites in Mississippi

### Research and Extension Sites

1. Extension/Research Farm-Mound Bayou (Bolivar County)
2. Incubator Farm-Preston (Kemper County)
3. Vegetable Processing Plant- Marks (Quitman County)
4. Model Farm-Lorman (Claiborne County)

### Collaborating Farmer Groups

Indian Springs Farmers Cooperative  
Osbourne Community Garden  
Natchez Community Garden

Start 2 Finish Farms

Environmental Learning Center Jackson Public Schools

We Will Go Ministries Community Garden

Tougaloo Agri-Growth Initiative

