



WINFRED THOMAS AGRICULTURAL RESEARCH STATION



Alabama Agricultural & Mechanical University
Hazel Green, AL

MANAGEMENT AND OPERATIONS MANUAL

Winfred Thomas Agricultural Research Station (WTARS) is a 900-acre agricultural and forestry research facility. It operates as a research, education and outreach facility within the College of Agricultural, Life and Natural Sciences through Alabama A&M University.

Directions: From the intersection of I-565 and US 231/431 (Memorial Parkway) in Huntsville, take exit 19B onto US 231/431 and drive 12.5 miles north. Turn right (east) onto Walker Lane and go 0.6 miles to the ARS sign and gate on the right.

Address: 372 Walker Lane, Hazel Green, AL 35750

Phone: (256) 828-2114

GPS Coordinates: N 34.9025, W 86.5596



Salient Facilities

The WTARS has 500 acres of field research space with the following facilities:

- Central facility – a conference/seminar/office building for meetings
- Plant and Soil Science field research lab with laboratories dedicated to agronomy, soil/environmental science, horticulture & forestry
- Field research equipment storage/Repair facility
- A 5-acre soil hydrology chemical/pollutant movement study site
- Constructed wetlands study site
- 50-acre experimental plot and demonstration area
- 20-acre pomology and horticulture research area
- Forest plantings and experimental plots
- 5-acre fish-stocked pond
- Weather station network in north Alabama (ALMNET)
- Ecological study site (20 acres & Flint River Fork area)



Field Laboratories:

<i>Laboratory Name</i>	Sq. Ft.
• Animal Science Building and Small Ruminant Outreach Center <i>(approximately 450 acres of pastureland)</i>	
• Agronomy Research	1,600
• Horticultural Research	1,600
• Forestry/Entomology Research	1,400
• Environmental Science Research	1,800
• Drying Rooms	150
	TOTAL 6,550

A. Goals, Role and Scope

The Mission

The mission of the WTARS is to provide a site, as well as facilities for agricultural, forestry and environmental research; stewardship training to the students at the University along with the community associated with agriculture, forestry and those living on the land.

The Objectives

The long-term objectives are embedded in the Mission statement, but further elaborated here.

The purpose of the Winfred Thomas Agricultural Experiment Station (WTARS) at Alabama A&M University, is to conduct research and provide valuable knowledge relating to agriculture, food systems, biological, social and environmental sciences, which in turn helps improve the quality of life of people and their environments. It works to:

1. Train future professionals that will ensure continued supply and security of human and animal food.
2. Ensure stable, productive agriculture; while protecting forests, soil and other natural resources.
3. Improve and create new ways for agricultural efficiency.
4. Find ways to protect crops and animals from pests, disease and other hazards.
5. Protect and improve the environment and the quality of life of people.
6. Support development of new agricultural products and processes.
7. Protect and enhance consumers' food quality and their sources.
8. Encourage rural and urban community development.

The short-term objectives are dynamic and are based on the agricultural and forestry research, as established by the state, national and international agricultural research and training, in which Alabama A&M University (AAMU) operates as an 1890 Land-Grant University.

Governance of the Winfred Thomas Agricultural Research Station (WTARS)

The University: Administratively the WTARS belongs to the Alabama A&M University. As a traditional 1890 Land-Grant institution, AAMU reflects its heritage in its function as a teaching, research, and public service institution, including extension. Alabama Agricultural and Mechanical University is accredited by

the Southern Association of Colleges and Schools' Commission on Colleges to award baccalaureate, masters, educational specialist, and doctoral degrees.

The College: The College of Agricultural, Life and Natural Sciences (CALNS) is the administrative entity that manages and provides the oversight to WTARS. To meet the future needs of society, CALNS offers diverse programs, many of which are not traditionally associated with agriculture or family and consumer sciences. Its five departments include four academic units - *Biological and Environmental Sciences, Community and Regional Planning, Family and Consumer Sciences, and Food and Animal Sciences*, and the one non-academic area of *Department of Military Sciences – ROTC*.

The triad foci of the College: teaching, research, and extension - the historical responsibilities of land-grant colleges and universities - are both collectively and individually poised to expand the frontiers of agriculture, forestry, environmental sciences, food and animal sciences, and family and consumer sciences. As educators, the faculty members are meeting the tremendous challenge of preparing scholars for tomorrow's scientific workforce. As researchers, they are committed to addressing our nation's most pressing needs, by working toward ensuring an abundant and safe food supply, while maintaining an environment we will be proud to leave to our children. As agents of outreach, the extension staff works to utilize its research and educational experience to improve the lives of Alabamians.

The Dean and the Research Director of the CALNS provide the oversight to the. Based on the collaborative nature of research and teaching, the College and thusly the WTARS, permit joint work with three Federal agencies (USDA NIFA-*National Institute of Food and Agriculture*; USDA NRCS- *Natural Resources Conservation Service*; and USDA FS-*Forest Service*), as well as several state entities.

The Managerial Responsibilities of WTARS

The WTARS functions are managed by a Station Manager. Generally, the Manager is educated in agricultural research and training so he/she can provide technical support to participating faculty, students and the community members, including visiting students from area schools. His/her responsibilities include:

Planning: Ensuring timely operation and seasonal planning of crops, management of animals, safety and security, and land and environmental stewardship.

Supervising/Co-working: Managing field research operations; working with diverse faculty members and their students and staff; providing security and safety to its workers, students, visitors and volunteers participating in mutually agreed upon tasks; and adjusting work schedules to meet seasonal work demands. Furthermore the Manager provides and plans with the CALNS faculty, departmental chairs and staff for future activities, makes assessment of past achievements, and potential improvements that need to occur.

Evaluating: Undertakes evaluation of its employees and provides input to supervisors and faculty colleagues about the performance of persons working at WTARS, in research and teaching staff.

B. The Staffing and Human Resources

The WTARS operates as a specialized unit of CALNS and that of the University; therefore, the faculty, staff, and student policies/procedures are applicable to the employees, workers and visitors. The Manager, in consultation with his/her direct supervisor, will undertake Station operations considering the timeliness of

biological materials, organisms that function under the circadian rhythms, and seasonal demands. Said adjustments will be done using approaches, such as compensatory time and leave schedules established by the University.

Refer to University Human Resources policy documents for clarity on questions pertaining to the following areas: Equal Employment Opportunity, Job Descriptions, Employment Benefits, Vacation, Holidays, Sick Leave, Health Insurance - any other applicable insurance coverage (Life, Disability), Pension and Timekeeping, etc.

Civil Rights Statement: The Winfred Thomas Agricultural Research Station is a public institution with firm and longstanding equal opportunity for all. It is the policy of the WTARS to abide by all United States and Alabama laws and AAMU policies applicable to discrimination and harassment. The WTARS does not discriminate on the basis of race, color, religion, sex, national origin, age, veteran's status, gender identity or expression, sexual orientation, marital status, or disability in admission or access to or treatment or employment in its programs, services, or activities as required by U.S. Equal Employment Opportunity Commission (EEOC): <http://www.eeoc.gov/eeoc/commission.cfm>.

As a unit within Alabama A&M University, we are resolved and obligated to follow all institutional policies, procedures, and protocols as related to the civil rights of faculty, staff, students, and others associated with the university and its activities. These policies may be found in the university's Faculty and Staff Handbooks, and on the Human Resources website at: <http://www.aamu.edu/administrativeoffices/hrservices/pages/policies%20and%20procedures.aspx>.

C. Issues of the Workplace

Workplace issues are essentially a domain of the University policy; however, in some ways they are atypical to a majority of University staff employees. Therefore, additional emphasis is provided to include:

Employee conduct: The WTARS employees will derive their guidance from University Policy Manuals in the matters pertaining to employee conduct such as in drug/alcohol use, sexual harassment, substance abuse policy, progressive discipline and smoking policy. With regard to smoking and the use of tobacco products, there are additional aspects unique to plant, animal and microbial organisms that are affected by residual smoke and physical contact with tobacco and affected organisms, such as the vegetable crops belonging to the same Solanaceae family (e.g., tomato, pepper, and eggplant, etc.), working with virus susceptible plant varieties and also with small animals affected by smoking or smoke residues.

It is critical to be able to provide written expectations of employee behavior and to spell out the steps involved in disciplinary action. Not only is it fair to provide employees with this information up front, it also provides a measure of legal protection for the WTARS and its parent organization, by making its policies clear and known. It is also crucial that all disciplinary actions be recorded in a written format, even if a verbal warning is given. A notation to the personnel file can be made.

D. Issues Related to WTARS Staff Effectiveness

WTARS management, its faculty and staff who are the primary, but not exclusive users of WTARS should make necessary steps to address the following factors. If not well understood, they serve to limit considerably the potential effectiveness of staff time and energy:

- In seasonal field work prioritization is not absolute. Frequent interruptions mean more time is needed to complete routine tasks.

- Field personnel often feel as though everyone is their boss.
- The majority of time may be devoted to serving few people, but evaluation may be based on other criteria.
- There is often a lack of self-esteem, if the staff is to some extent harried and demoralized.
- In busy season, there is a seemingly endless amount of work, requires adjustment of work hours for compensatory reasons.

Following approaches to maximize staff performance are taken to improve self-esteem by WTARS workers:

- Each position has a clearly written job description. Each employee has been given an opportunity to know their job description.
- Regular formal evaluations should be conducted, including: Self-evaluation
- Open two-way discussion of problem areas
- Praise for areas of responsibility which have been well carried out
- Clearly stated areas in which improvement is warranted
- Clearly stated goals with a timeline and criteria for establishing whether or not goals are met
- Clear action items are periodically defined for the supervisor, when a need for changes in supervisory approach arise
- Regular staff meetings, to include:
 - Review of activities in recent past
 - Review of time lines for tasks. Were the goals achieved? If yes, praise. If no, then analysis of what prevented them from succeeding? Solicit input from users about the immediacy of need, but don't let users control priorities for staff.
 - Provide opportunity for conflict resolution.
 - Provide opportunities for training and professional advancement.
 - Review of updated videos that address new safety issues

E. Safety

The safety of the researchers (faculty, students, and technicians), WTARS employees, and visitors is of utmost importance. Graduate students receive appropriate training from their faculty advisor (supervisor) in relation to their specific research project.

- Graduate students are provided continuous assistance by the manager and employees in the process of carrying out their research project, based on information provided by the PI

Safety videos, workshops and seminars are used to train employees, faculty, students, and technicians at the WTARS.



- Field preparations requiring mechanical farm machinery are carried out by qualified employees
- Applications of restricted chemicals are carried out by qualified employees
- Graduate students are encouraged to work in a “buddy system” at all times, mainly after official operating hours (7:00 AM to 3:30 PM) and weekends
- Undergraduate students work under the supervision of graduate students, technicians and/or the principal investigators of the research project
- The station manager to make sure that proper safety protocols are followed by everyone.



Everyone visiting the station is required to become familiar with the area, roads, and potential hazards (chemicals, large equipment, slippery surfaces, domestic and wild animals, venomous animals and poisonous plants, presence of bodies of water, remoteness, etc.), as well as to have a plan in case of an emergency. Due to the remote location of some parts of the station, everyone is encouraged to work in a team, when possible, and to notify their supervisor or other responsible individuals about the location to be visited and expected time of departure from the station. The North Alabama Bird Watchers schedule visits to the WTARS to collect information to the American Audubon Society. AAMU’s personnel are present and participate with the group during their visits. The WTARS is known as a sanctuary for unique birds species in this region (<http://alabamabirdingtrails.com/sites/winfred-thomas-agricultural-research-station/>).



On Weekends during the spring and early summer the North Alabama’s Birding group normally schedules regular bird-watching trips to the WTARS

F. Chemical Safety for Operators, Workers and to the Environment:

Chemicals on the farm can be dangerous especially if handled without reading about Material safety on the label and Material Safety Data Sheet facts. It is advisable that the Manager and the faculty member discuss this aspect carefully. Common agricultural chemicals (agrchemicals) include fuels, solvents, pesticides, herbicides, fungicides, fertilizers and veterinary chemicals. Many of these are also harmful to the environment. Care neither begins nor ends with just their proper use. It is just the middle part. It is preceded by storing before and after, transporting, and proper disposal of chemicals. The station manager

or at least one the fulltime employee at the WTARS must be certified by the State of Alabama Department of Agriculture, “**CERTIFICATION & TESTING FOR COMMERCIAL PESTICIDE APPLICATORS AND HORTICULTURALISTS**” office. The certified individual can supervise others workers and students when applying such chemicals that require a certified applicator (<http://agi.alabama.gov/divisions/pesticide-management/certification-and-testing>).

MSDS: Proper use of hazardous materials is required by law to include a Material Safety Data Sheet (MSDS) and label. The MSDS gives valuable information on how to safely handle the chemical. Before using any farm chemical, you should read the label, understand the MSDS, do a chemical users and Hazmat course, and follow usage instructions.

Safe Storage of Chemicals

- Always follow the manufacturers’ instructions for proper storage.
- Keep chemicals in their original containers and don’t pour into smaller bottles.
- Don’t remove labels from containers.
- Store chemicals in a locked, well-ventilated shed with floors that will contain spills.
- Store chemicals and personal protective equipment (PPE) in different locations.
- Store filter(s) from masks separately
- To prevent contamination of protective equipment when not in use – store items in a zip-locked bag or an ice cream container.
- Do not store liquid chemicals above solids.
- Separate different classes of chemicals to prevent reactions.
- Store animal feeds, seeds and fertilizers separately from other chemicals.
- Have mop-up materials on hand, such as sand, soil or *Dryorb* absorbent granules.
- Keep ignition sources well away from chemicals.
- Keep a record of the chemicals you buy, store and use.

Safe Transport of Chemicals

- Transport chemicals separately from food, water, animal feeds, seeds and fertilizers. This applies to transport of household and home garden quantities of the chemical, as well as bulk transport.
- Drums of agricultural chemicals should not be transported in enclosed cabins with the driver and passengers.
- Secure your load.
- Carry a written record of the chemicals you are transporting.
- Take all appropriate protective gear along with you.
- Safe handling of chemicals based on manufacturers instructions

Safe Use of Chemicals

- WTARS Manager will ensure anyone using agricultural chemicals is suitably trained to use both the chemical and any equipment required for application.
- Use chemical decanting kits to reduce the risk of spills and splashes, while mixing chemicals.
- Only mix the quantity of chemical required for the task at hand.
- Make sure the decanting and mixing area is well ventilated. If this is not possible, ensure that appropriate personal protective equipment (PPE) is worn for enclosed environments.

- Follow the manufacturers' instructions on the label.
- Always wear protective clothing such as chemical-resistant gloves, face shields or masks, overalls and goggles.
- Avoid exposing non-target animals or plants.
- Triple rinse equipment after chemical application and dispose of the rinse water (rinsate = a mixture of pesticides diluted by water, solvents, oils, commercial rinsing agents or any other substances) appropriately. Rinsate contains low concentrations of the chemical from the cleaning process, which have negative residual impact on subsequent use of the equipment.

Safe Disposal Procedures

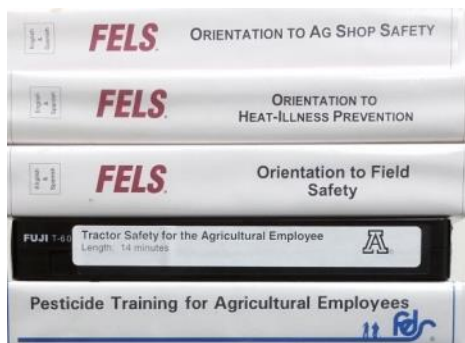
- Always follow the manufacturers' instructions for proper disposal of both chemicals and rinsate from equipment.
- Thoroughly triple rinse and then puncture empty containers to prevent reuse for other purposes.
- Return empty containers to the manufacturer or check with your local council on proper disposal methods.
- Audit your chemical store on a regular basis and dispose of any excess or outdated chemicals in the appropriate manner.
- The Waste Reduction Schemes provided by the University and by Madison County should be utilized.



Seek Medical Help for Chemical Poisoning

- If you think you are suffering any ill effects from chemical exposure, see your doctor.
- Immediately, contact Poison Control Center or go to a hospital with an emergency department. Be sure to inform them of what chemicals you may have been exposed to (take your MSDS).
- Try to avoid using the chemical in the future, select the safest possible chemical to use.
- Regional Poison Control Center, Children's Hospital, 1600 7th Avenue South, Birmingham, AL 35233 Emergency: (800) 222-1222, Administration: (205) 939-9720
- Alabama Poison Control Center 2503 Phoenix Dr., Tuscaloosa, AL 35405; alapoisoncenter.org Phone (205) 345-0600
- American Association of Poison Control Centers; 1 (800) 222-1222, Hours: 24 hours, 7 days a week; Languages: English; Website: www.aapcc.org

A. Operation of Field Equipment and Vehicles



The Professionals working with WTARS are cognizant of the fact that Agriculture ranks among the most hazardous industries. All employees hired at the WTARS are vetted for their qualifications based on experienced in the operation of all farm equipment. Further training is provided using multi-media materials (left) on a regular basis. Currently, most manufactures provide online training for their equipment (**John Deere University for Operators**, i.e. ...John Deere offers a web-based learning campus

where you can access training 24 hours a day, seven days a week: https://www.deere.com/en_US/services_and_support/safety-and-training/training/operator-training/operator-training.page). The station manager is responsible to schedule training sessions for all employees at the WTARS at least two times a year (Picture below).

The National Institute for Occupational Safety and Health (NIOSH) provides that farmers/farm workers such as those at WTARS are at high risk for fatal and nonfatal injuries, work-related lung diseases, noise-induced hearing loss, skin diseases, and certain cancers associated with chemical use and prolonged sun exposure. Further, farmers are subject to the stresses of financial uncertainty and losses, intensified time pressure,



WTARS employees receiving training by John Deere personnel on the operation of a grain combine.

natural disasters such as drought, intergenerational conflicts, and health and safety concerns. From a broader and family farm perspective, farming is one of the few industries in which the families (who often share the work and live on the premises) are also at risk for injuries, illness, and death.



Research and training centers such as WTARS and other units of the College (e.g., Forestry/timber harvesting; forest fire-fighting arm, such as the training of AAMU's Fire Dawgs are trained in chainsaw safety, controlled burns, and forest fires).



Training of students by the Alabama A&M University Fire Dawgs program at the WTARS



In the Managerial and the administrative leaders capacities, WTARS must always remain vigilant about properly training and retraining new hires and students who engage in field research, field harvest and machine operation. Driving both the personal and state owned vehicles on WTARS' property will comply with public safety and University licensing and registration regulations. Where specialized field research equipment is to be utilized, the Station Manager and the Faculty member, or the PI (Principal Investigator) must review the training and safety needs. Provision must also be made by all participants in CALNS and the University to guarantee safety. Current policy at the WTARS only allows the employees and trained technicians to operate mechanized-farm equipment. It is the plan of the Dean/Research Director to create a special course for farm equipment operation to train students for field experience.

B. Securing the Premises

The 900+ acres facility is surrounded by nearly ~20 miles of fence lines including cross-fencing to contain animals. All entry points are outfitted with gates to discourage trespassing. Locks are placed on gates where equipment, materials, supplies and other valuable assets are stored. The gate to the main entrance on 372 Walker Lane is outfitted with a restricted style key which can only be copied by request from the Research



Director to AAMU's Physical Facilities. Keys are provided on a need-only basis, and must be returned to the station manager when work is completed by the user. During the hours of operation, WTARS personnel including the manager and workers are aware of all visitors entering the station and interact with everyone based on the nature for their visit. Every day, workers at the station drive and inspect the perimeter of the station to ensure that, no man-made or natural incident occurred overnight. By doing so, the crew would make sure to report any suspicious damage to the proper authorities and that, fence areas damaged by animals are repaired immediately to prevent encroachment into neighboring properties.

WTARS has several challenges in attaining full security. Such challenges include:

- A disparate location away from a more patrolled and frequented campus.
- Large acreage with ground cover consisting of forests, wetlands, rivers, ponds, buildings and field plots (consisting of managed tree plantings, seed orchard, fruit and vegetable plantings, herbal and medicinal plants and agronomic crops).
- A land mass of over 900+ acres divided into two nearby parcels, but separated by one of the most heavily traveled highways of north Alabama.
- Often freely accessed by predators (e.g., foxes, coyotes) and other wild animals (deer)
- Like many other agricultural lands, fewer workers (thus lower safety oversight) per unit area.
- Regular field visits, field days.
- Ever expanding urban development that garlands WTARS.

Approaches taken by WTARS to Secure the Facility

- The WTARS staff, including the Station Manager is cognizant of the heavy responsibility that they must share and bear; therefore, remain vigilant in monitoring visitors.
- The AAMU campus security patrols and they are fully aware that it is a property belonging to the University.
- The WTARS staff including the Station Manager maintains respectable relationship with neighbors around the property the local Sherriff patrols in the area; noticeable suspicious activities are normally reported to us immediately
- Two of the workers who live close to the station will often address after hours issues which can easily be handled
- Installation of cameras and monitoring equipment to provide multiple strategic views of the Station. Such resources are continually reviewed by the Dean and Research Director in collaboration with Campus safety and security personnel.
- Strengthen the “buddy system”: The official working hours of the WTARS must be clearly displayed and should become common knowledge of the faculty, staff and the students. It is strongly encouraged that the research work be completed, during the regular work hours. However, if the nature of experimentation or amount of work is time sensitive and requires that the faculty, staff or student work late or beyond the work hours of WTARS staff, the major professor and faculty/staff member must be fully aware of person(s) remaining. During such periods a “buddy system” should be fully utilized. For example, if a graduate student is to work late, then the major professor should arrange for an additional person to be present to provide safety and work support, so that the work can be performed in a time efficient manner and the WTARS facility is secured and vacated.
- Extra care is taken in limiting access and the privilege of providing unsupervised roaming to the WTARS facilities.

C. Regulatory Environment

Regulatory issues will need to be considered and updated during routine operations and also during planning of any additional experimentation or processes at WTARS:

CALNS and the Station Manager must remain cognizant of changes in the following types of regulations exemplified (but not limited to) the following:

- State and federal requirements relating to water supply and waste disposal, health, safety, labor, taxation, ADA compliance, personnel, and environmental quality
- Special regulatory agencies, ADEM (*Alabama Department of Environmental Management*), conservation resource conservation districts, etc.
- Local regulatory issues such as water conservation, NRCS (*Natural Resources Conservation Service*), sewage disposal, weed control and zoning, building codes, and inspection procedures, licensing of vehicles and vessels at the local, county or state level, licensing regulations of contractors
- Fire safety regulations and the institutional, local and state levels
- State, federal and local requirements relating to animal care and use of animals for research and teaching
- Permits for research or educational activities on federal or state lands
- Miscellaneous scientific conduct permitting issues, such as bird-banding permit requirements, weed control regulations, trapping regulations, etc.

The following are just a few examples of additional guides that are utilized at WTARS:

Occupational Safety and Health Administration (OSHA) Fact Sheet Working Outdoors. There is an online OSHA Factsheet listing of other health and safety topics.

NIOSH [*National Institute of Occupational Safety and Health*], (Publication No. 2004-117: Injuries to Youth on Minority Farm Operations). Pollinators and Pesticide Stewardship "Protecting Pollinators on Farms and Urban Landscape." Coalition for Urban/Rural Environmental Stewardship, 2014-2015 Alabama Pest Management Handbook (<https://store.aces.edu/ItemDetail.aspx?ProductID=13504>)

Alabama Pesticide Safety Education Program

Private Applicator means a permitted applicator who uses or supervises the use of any pesticide which is classified for restricted use for purpose of producing any agricultural commodity on property owned or rented by him or his employer or (if applied without compensation other than trading of personal services between producers of agricultural commodities) on the property of another person.

Purdue University Cooperative Extension Service. PPP-61 PESTICIDE SAFETY TIPS for the WORKPLACE and FARM: A Pictorial Guide to Best Pesticide Management Practices. Contains practical tips and examples of how to prevent off-site movement, store pesticides safely, and be prepared for emergencies. Extremely well-illustrated examples of what to do, as well as not do!

D. Public Safety and Liability

In our highly litigious society, institutions are concerned about liability issues. This concern may be heightened when the sponsoring institution is a state university. WTARS being an arm of AAMU receives insurance and liability protection. The laws and legalities in case of an accident should be determined in collaboration with the College and University administrators.

Therefore, the approach utilized by WTARS is to develop safety protocols in an effort to reduce liability risk. These protocols are also extended to include compliance to all issues relating to research with

animals, invasive plant species and hazardous materials. The WTARS housed small and large ruminants' for research. All research work involving animals at the WTARS are carried out based on the guidelines by the Institutional Animal Care and Use (IACUC). As stated, the federal government and University policy require that the care and use of all vertebrate laboratory animals be monitored by the Institutional Animal Care and Use Committee (IACUC). IACUC review and approval is required when animals are used in any research studies and instructional programs. Copies of guidelines and forms may be obtained from the IACUC Chair or from the Office of Research Compliance or on the university's website: <http://www.aamu.edu/administrativeoffices/irpsp/sponsoredprograms/pages/iacuc.aspx>



Workers at the WTARS receive significant training in the handling of all animals for proper care, housing and research protocols. Training is provided by Veterinarians, Animal Scientists and other experts from appropriate disciplines. Animals receive yearly exams and vaccinations in order to maintain healthy and certified herds.

Exhibits and Attachments Enclosed below



College of Agricultural, Life and Natural Sciences
Winfred Thomas Agricultural Research Station
372 Walker Lane
Hazel Green, AL 35750
(256) 828-2114 Office

EXAMPLE OF AN EXPERIMENT OUTLINE

372 Walker Lane
Huntsville, Alabama 35750

Project Number: Number to be assigned (example: ALAX0112930)

Title: Pre-Sidedress Soil Nitrate Test for Corn Grain Production on a Decatur Silt Loam.

Principle Investigators:

Johnnie B. Crown, Agronomist, Associate Professor; Soil Fertility.
John C. Smith, Assistant Professor, Environmental Science
A. W. Back, Associate Professor; agronomy

Department(S): Plant and Soil Science and Physics

Duration: Starting Date: _____ Completion Date: _____

Objectives:

- A. Determine the residual effects of three years of poultry litter application on N availability for corn grain production.
- B. Evaluate the pre-sidedress soil nitrate test (PSNT) for corn grain production on a Decatur Silt Loam soil.
- C. Evaluate other techniques for predicting sidedress N needs on corn such as chlorophyll meter and quick nitrate tests.

Procedures:

Experiment will be conducted for two years, using modified treatments and plots established in 1991 to study broiler litter on cotton.

All of the broiler litter will be applied based upon the total N analysis of the litter to be used. It will be broadcast prior to planting and prior to in-row subsoiling. Ammonium nitrate will be applied in split applications, ½ prior to planting and ½ as a sidedress at approximately V6 growth stage after soil sampling. Lime, P, and K will applied according to soil samples taken in 1993. Reduced tillage will be used if possible, but all plots must receive in-row sub-soiling just prior to planting. Irrigation may be used to assure reasonable yields.

Experimental Design:

Experimental design will be a randomized block with 11 treatments and 4 replications. Plot size will remain the same as in the previous experiment, but row width can be at the convenience of the station manager (attach schematic of design).

Data to be collected:

V6 growth stage just prior to side dress N application:

1. Soil Nitrate – N at three depths:
 - 0-8 inches
 - 8-16 inches
 - 16-24 inches
2. Total N in whole plants

Responsibilities:

Project leaders: Sample collection and analysis; weigh fertilizer and assist with application; analyze data; prepare report and publications.

WTARS personnel: Help to plot layoff, fertilizer and manure application, and assist with sample collection; procure broiler litter; plant, cultivate, harvest and perform other routine cultural practices as needed. Provide other services such as mowing and cleaning around research plot.

Publication:

Project leaders will assume all responsibility for publication; station manager may use any or all data collected in meetings or tours.

Approvals:

The PI/Faculty Lead
Assistant Professor
Soil Chemistry

Co PI or Faculty Collaborator Participant

Dept. Chair

WTARS Station Manager

Director of Research

EXHIBITS: Field Days and Workshop examples

ETHNIC VEGETABLE CROPS WORKSHOP



**VENUE: Winfred Thomas Agricultural Research Station,
372 Walker Lane, Hazel Green, AL**

8:00 am – 4:00 pm August 29, 2015;

Registration Fee \$10 - includes lunch and resource materials

Contact: Eddie Wheeler (256-264-5539); Robert Spencer (256-689-0274);

Rao Mentreddy (256-457-8552); JaMarkus Crowell ([256-372-4424](tel:256-372-4424));

Karen Wynne (256-520-2400), Radhika Kakani (256-604-1179)

- 8:00 Registration opens
- 8:30 – 8:45 Welcome: Dr. S.R. Mentreddy
- Greetings from Alabama Department of Agriculture and Industry: Mr. Hassey Brooks
Greetings from Alabama A&M University (AAMU): Dr. Lloyd Walker, Dean, College
of Agricultural, Life and Natural Sciences (CALNS)
Dr. Anthony Overton, Chair, Department of Biological and Environmental Sciences
AAMU/CALNS
- 8:45 – 9:00 Pre-workshop survey
- 9:00 – 10:30 Tour of research plots:
1. Ethnic vegetable crops research – S. Rao Mentreddy, AAMU
 2. Micro-irrigation set up and maintenance – Mr. Arnold Caylor, Auburn University
Horticultural Research Station (AUHRS), Cullman, AL
- 10:30 – 10:40 Break**
- 10:40 – 12:30 Cooking demonstration and lunch – Radhika Kakani, French Chef, Indigo Market, LLC
- Moderator: Robert Spencer**
- 12:30 – 1:15 Production and management of ethnic vegetable crops – William Evans, Associate
Research Professor, Truck Crops, Mississippi State University
- 1:15 – 2:00 Ethnic/specialty vegetable crops production practices in Alabama - Arnold Caylor
(AUHRS), Cullman, AL
- 2:00 – 3:00 Integrated pest management practices for ethnic vegetable crops – Ayanava Majumdar,
Alabama Cooperative Extension System (ACES), Auburn University

3:00 – 3:15 Break

Moderator: Karen Wynne

3:15 – 4:00 Vendors, Restaurateurs and Farmer Panel

Moderator: Hunter McBrayer

4:00 – 4:10 Post conference survey



4:10 Vote of Thanks by Julio Correa

***Limited Scholarships are available for deserving farmers.
Contact Rao Mentreddy at 256-457-8552***

**Mark your
Calendar!**
Please call / email to REGISTER!
It's free...

Field Day

Wednesday Aug. 5, 2009 4:00 pm

Presented by Alabama A&M and Auburn Universities

Winfred Thomas Agricultural Research Station,
372 Walker Ln., Hazelgreen, AL 35750

FREE FOOD!

Learn about...

Organic Vegetable Production in ALABAMA!

Medicinal Plants, Exotic Vegetables, Tropical Legumes,
Shiitake Mushrooms & much more...



Organic Vegetables Production

Alabama A&M and Auburn University researchers will share their Organic research experience from the past 4 years on weed management using cover crops (winter and summer), organic tomato & pepper production and sustainable practices, farmscaping, etc!

Delicious Exotic Vegetables & Tropical Legumes

Wanna try something new in your neighborhood? Fantastic alternate choice of exotic Indian/Asian Vegetables and tropical legume crops! Great for niche market-oriented growers / Small Farmers.



Marvels of Medicinal Plants

More than 90 different kinds of priceless BASIL grown right here in Alabama A&M University! A hypoglycemic, fragrant, ornamental and divine crop to know about. Basil

Shiitake Mushroom Culture

Learn by doing! Get involved! Learn tips on raising Shiitake mushroom on logs! Have more questions on mushroom, then it's a must attend session!



Program: Introduction, Farm Tour & Cook-out!

Contacts: Dr. Rao: 256-372-4250

Dr. Jan: 334-844-2124

rmentreddy@gmail.com, garrecj@auburn.edu

Direction: The research station is 11 miles north of Alabama A&M Campus. Take 431/231 North, turn right on Walker Ln. and in less than a mile on your right you will find the gate to enter the research station.



Workshops with hands-on demonstrations and classroom presentations by experts from various agencies are held throughout the year. The pictures (above and below) show a workshop on soil health at the WTARS being presented by scientists from the USDA-NRCS Soil Laboratory based at Auburn University. These workshops allow Alabama A&M University to fulfill its outreach mission to the community, while providing learning opportunities for our faculty, staff and students.





Alabama Birding Trails



Field Sparrow/Credit: Paul Franklin

Alabama A&M's Winfred Thomas Agricultural Research Station (Site #27, Central Loop) consists of 900 acres of grasslands and agricultural fields, providing a rare area of open country filled with native birds. Bird the area by making frequent stops, and look for Grasshopper Sparrows, Dickcissels, and Eastern Meadowlarks. Scan the open agriculture fields for other sparrows such as Chipping and Field. In winter, these fields host Northern Harriers and Short-eared

Owls, which can be seen patrolling over the extensive grasslands. The star attraction at the research station are the Scissor-tailed Flycatchers, which can be found in spring and early summer perched on small trees and fences across the area.

Directions: From the intersection of I-565 and US 231/431 (Memorial Parkway) in Huntsville, take exit 19B onto US 231/431 and drive 12.5 miles north. Turn right (east) onto Walker Lane and go 0.6 mile to the ARS sign and gate on the right. Visitors should note that the gate into the field station is periodically closed, at which time only walk-in birding is allowed.

GPS: N 34.9025, W 86.5596

Fee: Free

Amenities: Driving Trail

Contact Info:

Alabama A&M Winfred Thomas Agricultural Research Station
372 Walker Lane
Hazel Green, AL 35762
(256) 372-4248

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The Pond at the Winfred Thomas Agricultural Research Station, Hazel Green Alabama



The pond at the WTARS is a favorite for photographers. The Canadian Geese picture above received an award from a state photography competition on the subject of nature. The pond is the site for CALNS' fishery program that's administered by faculty in BES.

References

1. Farm Safety. <http://njaes.rutgers.edu/farmsafety/>
2. Lohr, S. 2001. An Operations Manual for Field Stations and Marine Laboratories. Organization of Biological Field Stations. <http://www.obfs.org/>