ALABAMA COMMUNITIES IN TRANSITION

action

Spring 2006

PUBLIC ISSUE INFORMATION FOR ALABAMA CITIZENS

FROM THE EDITOR

Indoor Air Quality

When the term air pollution is mentioned, one usually imagines factory smokestacks filling the sky with unhealthy gases. While this type of air pollution is definitely a cause for concern, a more common threat related to air pollution is often closer to home. In fact, it is our home, as well as other inside environments, such as school and the workplace. Buildings are highlighted in the news as making their tenants sick and are referred to as sick buildings, while individual homes are linked to increases in allergies and asthma. Because most Alabamians spend most of their time indoors, **indoor air quality** should be one of our priorities.

"Action" is a quarterly publication of the Community Resource Development unit of the Alabama Cooperative Extension System. The goal of the CRD unit is to help people solve community problems, take advantage of opportunities and build on their assets. The CRD unit provides educational and technical assistance in economic development, leadership development, strategic planning, environmental education, community health and public policy education. "Action" is one tool we use to link community groups to internal and external resources. This issue represents Extension's links to the Alabama Department of Economic and Community Affairs and the Alabama Department of Public Health.

Extension's involvement and links to others involved in **indoor air quality** is the focus of this spring 2006 issue of "Action." Laura Booth, Extension associate, is the coordinator for this issue. Other contributors are Karen Clifton (Alabama Department of Economic and Community Affairs) and Salvador Gray (Alabama Department of Public Health).

The next issue of "Action," summer 2006, will highlight **agri-tourism**. For more information on these topics or suggestions for additional topics, contact the editor at (334) 844-3517, fax (334) 844-9022, or e-mail chesnjt@auburn.edu.

J. Thomas Chesnutt
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Indoor Air Quality

The quality of the air we breathe is important to human health. Because the average person spends about 90 percent of their time indoors, air quality in the indoor environment is a significant concern. Evidence indicates that indoor air can be more polluted than outdoor air. Factors such as tighter building construction and remodeling can contribute to less ventilation from fresh outdoor air and a buildup of indoor contaminants, because indoor air is not exhausted to the outdoors. Some of the things that can compromise indoor air quality are certain types of furnishings, combustion appliances, household products, secondhand smoke, mold, dust mites, dust created from deteriorating lead paint and radon gas. Therefore, exposure to indoor air pollutants may cause a risk to human health. Certain population groups are more vulnerable to the effects of poor indoor air quality, such as the very young, the elderly and those with respiratory illnesses.

The Alabama Cooperative Extension System provides educational outreach to the general public on indoor air quality through a variety of programs, often by working in partnership with other university partners, as well as federal, state and local organizations. A healthy indoor environment benefits all citizens, and local, state and federal agencies can serve as resources to the community to improve the health and quality of life. Partners include the following:

- USDA/CSREES (The Cooperative State Research, Education, and Extension Service)
- U.S. Environmental Protection Agency
- Housing and Urban Development (HUD)
- Alabama Department of Public Health (ADPH)-Bureau of Environmental Services
- Tuskegee University, College of Engineering, Architecture and Physical Sciences
- Auburn University, College of Human Sciences
- University of Alabama—Birmingham, School of Public Health, Department of Environmental Health Sciences
- UAB School of Public Health, Center for Community Health Resource Development
- The University of Alabama College of Continuing Studies: Division of Environmental and Industrial Programs
- Legacy, Inc., Partners in Environmental Education
- American Lung Association of Alabama

Healthy Indoor Air for America's Homes

For several years, Extension has been involved with the Healthy Indoor Air for America's Homes Program. The Healthy Indoor Air for America's Homes project is a collaborative interagency effort between USDA/CSREES and EPA developed to provide basic knowledge and understanding of residential indoor air quality issues by the general public. A Web site, www.healthyindoorair.org, containing many supporting and informational materials helps to educate consumers about sources, health risks and control measures related to common residential indoor air problems.

Healthy Homes Project

This project, supported by a grant from USDA/CSREES in cooperation with HUD, is addressed to low-income

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families with children to help provide outreach education about household environmental hazards. In cooperation with Legacy, Partners in Environmental Education, the publication, *"Help Yourself to a Healthy Home"* was reprinted with the Extension logo and Alabama information on the inside covers, including contact information for each county Extension office. This publication, CRD-71, is available through the Extension Web site: www.aces.edu/pubs. In 2006, the national project coordinator, working with USDA/CSREES and HUD, will be located at Auburn University with Extension.

Southern Region Children's Environmental Health Project

This project is supported by a grant from EPA Region IV, cooperating with the University of Georgia Cooperative Extension Service. Eight states in region IV are cooperating in this project, which addresses environmental issues affecting children's health. It is particularly important to focus on children when addressing indoor air quality hazards. Children's bodies are smaller than adults and their organs are still developing. Hazards from the environment are more likely to harm children, affecting normal child development; some harmful effects persist into adulthood. Poor indoor air quality can trigger health issues, such as asthma, lead poisoning and others. A pilot in-home asthma trigger assessment and community education program in Marengo, Sumter, Greene and Hale counties will begin later this year. This is an effort of the Alabama Cooperative Extension System and Tuskegee University Cooperative Extension Program, funded by EPA and the Children's Environmental Health Project. Other participants include schools and community pharmacists helping educate children and their caregivers about controlling asthma.

Tuskegee Healthy House

The Tuskegee University Healthy House is a demonstration house built on the campus of Tuskegee University. The house was designed to meet three criteria: low cost (affordability), energy efficiency and healthy indoor air quality. There are several components in the house's features that contribute to good indoor air quality: composite wood floors (in lieu of carpeting), solid wood cabinets (no particle board), low volatile organic compound caulking materials and paint, centrally located heat pump to minimize ductwork and electric appliances (no combustion equipment). Dr. Heshmat Aglan, associate dean and professor at TU (aglanh@tuskegee.edu) developed the house and the U.S. Department of Energy sponsored it through Oak Ridge National Laboratory. For more information on the house, visit the following Web site: www.homes-across-america.org.

Laura Booth
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ENERGY STAR® and Indoor Environments

We all want our homes to be a haven from the world. We go home after a long day at work or school to relax, rest and rejuvenate. It's the place where we're most comfortable. Indoor air quality can be a significant factor in that comfort. Stale indoor air can cause health problems and can be responsible for symptoms, such as headaches, drowsiness and respiratory problems. These symptoms are more common in homes with poor indoor air quality because of poor ventilation and moisture control.

Indoor pollution comes from such sources as cooking, smoking, showering and chemicals from furnishings in the home. If the pollutants are not properly exhausted from the home and replaced with fresh outdoor air, indoor air quality problems occur. ENERGY STAR labeled ventilating fans do a superb job of exhausting stale air out of the home. On average, they use 65 percent less energy than standard models and move more air per unit of energy used through better blade design. By using high performance motors that perform better and last longer, they provide better efficiency with less noise.

Good construction practices, such as those used in ENERGY STAR®-labeled homes also ensure better indoor air quality for a healthier home. Tighter construction prevents infiltration of dust, pollen, car exhaust and insects into the home. Outer walls, ceilings, windows and floors make up the envelope of the home. Proper attention to sealing envelope penetrations limits uncontrolled infiltration, improves energy efficiency and reduces homeowner energy costs. This results in a home that is less expensive to operate.

Whether you do-it-yourself or have a contractor perform work on your home, it is important to have your local heating and cooling contractor perform a combustion safety test after sealing air leaks to be sure all your gas or oil-burning appliances are working properly. A good time to have it checked is during your annual heating system checkup.

In most homes, ventilation occurs accidentally when air leaks through the building envelope. This inefficient and undesirable ventilation relies on pressure differences between indoor and outdoor spaces caused by temperature and wind variations. This can bring in cold drafts in the winter causing heating bills to go up. In the milder months, not enough fresh air enters the home, leading to poor indoor air quality.

Active ventilation is one way to control the air that comes into the home and improve air quality. These systems not only offer the homeowner control over the ventilation, but also the opportunity to filter and clean the air. Two general types of active ventilation systems are continuous exhaust and heat recovery ventilation. These ventilation systems exhaust stale indoor air and

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bring in fresh outdoor air. The answer to good indoor air quality is control. ENERGY STAR®'s motto is "seal it tight, and ventilate right!" By controlling the air coming into and leaving our homes, we can ensure the freshest air possible and the most comfortable home.

To find tips on making your home more energy efficient and improving the quality of your home's indoor air, go to ENERGY STAR®'s Home Improvement section at www.energystar.gov. When you get ready to buy or build your next home, make sure it's an ENERGY STAR®-labeled home for maximum energy efficiency and comfort. For more information on ENERGY STAR® homes or products, go to www.energystar.gov, or contact the Alabama Department of Economic and Community Affairs – Science, Technology and Energy Division at www.adeca.alabama.gov or (800) 392-8098.

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action
Alabama Communities in Transition

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ALABAMA COOPERATIVE Extension SYSTEM
Your Experts for Life

Action is published once each quarter by the Alabama Cooperative Extension System.

We would like you to share success stories in your community for inclusion in future issues of *Action*. Send to: J. Thomas Chesnutt, 218 Extension Hall, Auburn University, Alabama 36849.

State Indoor Air Quality Program

The Environmental Protection Agency has designated the Alabama Department of Public Health (ADPH) as the state indoor air contact. In this role, ADPH provides advisory and consulting services for the state and those who request it by providing printed materials and information on indoor air quality, molds, lead, radon and asbestos. In general, ADPH provides information and work on issues related to indoor air quality, molds, lead-based paint and other lead hazards as well as participates in various public education, presentations and outreach workshops. Due to lack of general funds, ADPH has suspended onsite investigations of indoor air quality problems on an individual facility or residence, but maintains a statewide list of qualified professional indoor air inspection firms for referral. However, for special or unique indoor air quality problems involving public health issues, toxicological investigation and analysis are provided. More specific ADPH services related to indoor air quality are provided on each media program basis as follows.

Indoor Air Quality (chemical and organic gaseous compound)

In collaboration with the EPA and the Centers for Disease Control and Prevention, ADPH provides consulting and advisory services and maintains a list of qualified professional indoor air inspection firms that specialize in various indoor air pollution remediation. ADPH provides referral to other federal or state agencies for resolution and provides epidemiological and toxicological analysis on a case-by-case basis.

Asbestos

In addition to consulting, advisory and referral services, the ADPH Indoor Air Quality Branch provides analysis of suspected asbestos-containing material. Samples are tested in its laboratory for asbestos at no charge to the public. To assist public schools, ADPH collaborates with the Safe State program of the University of Alabama.

Molds

Because safety standards, state legislation and regulatory program do not exist for molds, ADPH's services in this area are primarily limited to consulting and advisory for mold remediation. ADPH also refers individuals to professional mold inspectors, remediation firms and other federal and state agencies. In conjunction with CDC, EPA and OSHA, the Indoor Air Quality Branch maintains a Web site on molds (www.ADPH.org/iag) that provides useful information on molds and flood cleanup as well as links to key federal agencies.

Lead Dust

Regarding the lead hazard elimination program, the primary focus of the ADPH is to enforce the state lead regulations issued under the Alabama Lead Reduction Act of 1997. These rules require that individuals who engaged in lead identification and risk assessment and lead-based paint removal of pre-1978 housing and child-occupied facilities be trained and certified to perform according to established safe work practice standards. Lead was banned from residential paint in 1978. Lead Contractor Certification Program activities include certification of firms to conduct lead based-paint activities, inspection of lead abatement project sites, visits to municipal authorities for compliance assistance and numbers of state lead regulations violations noted.

Indoor Air Branch personnel also provide support for the Alabama Childhood Lead Poison Prevention Program, which identifies children with elevated blood lead levels through screening by local health departments and private physicians. This program provides environmental surveys of homes to identify sources of lead

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hazards and recommend methods to eradicate lead hazards that exist. The program ensures that proper medical treatment or case management is undertaken by a responsible authority as well as preventing lead poisoning in homes containing lead hazards. Indoor Air Quality Branch maintains a Web site on lead at www.ADPH.org/lead. Childhood Lead Poison Prevention program activities include lead outreach (inspections and awareness) workshops, inspection of homes with cases of children with high blood lead and environmental lead sampling of dust, soil, water and paint chips.

For more information on the above programs, contact Salvador Gray or Charles Brookins of the Indoor Air Quality Branch at (334) 206-5373.

Indoor Radon

ADPH's Office of Radiation Control under the Alabama Indoor Radon Program focuses on increasing testing in residences for radon, mitigation in homes with excessive radon concentrations and increasing demand for and use of radon resistance construction. This is accomplished through outreach to students, home owners, real estate agents, home builders and contractors. Emphasis is placed on Zone 1 radon counties (15 counties in northern Alabama). For more information on this program, contact Jim McNees at (334) 206-5368.

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Visit the Community Resource Development home page at **www.aces.edu/department/crd/**

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