



Improving Radon Awareness and Abatement in Alabama

Impact Statement

The Problem/Issue:

Radon is a national health risk that, according to the U.S. Environmental Protection Agency, is estimated to cause between 15,000 and 22,000 lung cancer deaths per year in the United States. The EPA also estimates that 1 in 5 homes across the United States has elevated levels of radon. Backed by extensive research, the U.S. surgeon general has warned that radon is the second leading cause of lung cancer behind smoking in the United States. It is the leading cause of lung cancer in nonsmokers.

Radon is called the silent killer because it is a colorless, odorless, tasteless gas that cannot be detected without specifically testing for it. It occurs naturally in most soils and is in the air you breathe. Although radon gas dissipates in the air outside, it can enter a home or building through foundation cracks and openings around pipes. Once inside, it gets trapped and can build to high levels. This build-up increases the risk of lung cancer. Testing is the only way to determine if a home has elevated levels of radon. The surgeon general recommends testing all homes because the home is where families spend the most time.

What's Been Done:

Although this serious, life-threatening indoor air pollutant is a health risk of national concern, Alabama does not have legislation pertaining to radon or its elimination from buildings, homes or other structures. Before 1997, the Alabama Department of Public Health was solely responsible for educating citizens about the radon health risk. However, recognizing Extension's ability to reach the public, the ADPH entered into a grant partnership in October 1997 to further educate the citizens of Alabama about radon risk. Since the program was implemented, it has been funded through the ADPH, with a pass-through grant from the EPA. More than \$1,464,000 has been provided in support since the Extension program's inception.

The Alabama Radon Team began with 20 county agents in 15 counties and four Extension support personnel based at Auburn University. Although the program has evolved to include other counties, the program currently concentrates its efforts in 13 zone 1 (highest radon incidence) counties—Calhoun, Clay, Cleburne, Colbert, Franklin, Jackson, Jefferson, Lauderdale, Lawrence, Madison, Morgan, Shelby and Talladega—as well as one zone 2 (moderate radon incidence) county, Marshall.

Extension works with the ADPH in conducting an extensive educational effort of radon-risk awareness to

homeowners, homebuilders, real estate agents, home appraisers, home inspectors, code officials, medical professionals, policy makers and the general public. Along with promoting awareness, the goal is to test homes for radon, mitigate homes with high radon levels, build homes that are resistant to radon and test homes for radon in real estate transactions.

Testing for radon is highly encouraged, so Extension offices in the program counties offer radon test kits at a nominal price of \$5. Although test kits are available at hardware stores and other retail outlets, 14,000 Alabama citizens have received radon test kits through Extension. In FY-03, 3,422 test kits were distributed to Alabama citizens, with 2,064 (60 percent) of the tests utilized.

Information is distributed in a variety of ways including mass media, exhibits, seminars, letters, the Internet, Extension programs to businesses, community groups, medical professionals, homebuilders and others. Over 200,900 personal contacts have been made, and more than 20 million potential viewers, listeners and readers have been reached using mass media outlets.

Elementary school children have been one target audience. More than 500 children in kindergarten through fifth grade learned about the dangers of radon with the Radon Ranger booklet, in which a super hero battles the deadly gas.

Information has reached over 385,000 citizens through displays and exhibits at special events, public offices, libraries, hospitals, doctors' offices, real estate offices, county courthouses, senior centers and county Extension offices.

In 2003, an acrylic brochure display was placed in radiation oncologist offices as well as in county health departments. Over 356 free test kits were distributed to Alabama citizens as a direct result of those displays.

Why We Care:

During the six years of the program's existence, more than 5,500 or 39 percent of Alabama homes have been tested for radon with test kits purchased from Extension, with 23 percent having elevated levels of radon. In the zone 1 counties, where radon awareness programs are concentrated, 24 percent of the homes tested have shown high levels of radon. In FY-03, 2,064 radon tests were completed, an increase of over 100 percent from the previous year's testing.

Over 795 radon-resistant homes have been built since the Extension program began. In addition, the Alabama Radon Team was responsible for referring homeowners to mitigators for about half of the 786 homes that have been reported mitigated for radon. More than 732 homes have been tested for radon in real estate transactions.

The Radon in Alabama Web site has attracted over 7,000 visitors since its inception. Over 300 test kits have been purchased through the Web site, with more than 50 percent of the test kits utilized by homeowners. In June 2003, 36 Habitat for Humanity homes in Anniston were built with radon systems. The equipment and supplies,

as well as sweat equity, were donated by Extension's radon program and radon industry volunteers.

Extension's response to the state's critical need to create awareness about the dangers of radon has won national acclaim. USDA's Cooperative State Research, Education and Extension Service issued one of its four 2000 Flagship Awards in Natural Resources and Environmental Management to Alabama Extension's Radon Awareness, Mitigation and Radon-Resistant New Construction program. The program also won a 2000 EPA Environmental Merit Award for outstanding efforts in improving the environment in the Southeast.