

Radon

In Georgia

www.fcs.uga.edu/housing 1-800-ASK-UGA1

www.dca.state.ga.us 1-800-359-4663

www.southface.org 1-800-765-0037

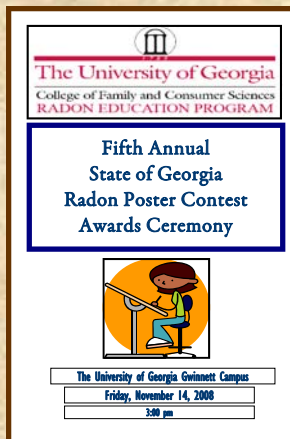
www.epa.gov/iaq/radon 1-800-767-7236

Quarterly Newsletter and Outreach Report

October through December 2008

The University of Georgia (UGA) College of Family & Consumer Sciences Radon Education Program is primarily funded by the US Environmental Protection Agency through the Georgia Department of Community Affairs. Partners include UGA Cooperative Extension and Southface Energy Institute.

Radon Education Program Gives & Receives Awards



See page 3 for the winners and their posters!



Ines Beltran and Edda Cotto-Rivera are excited! Find out why on page 4.

NEWS & PROGRESS REPORTS

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2008-2009 Georgia Radon Poster Contest

The Fifth Annual State of Georgia Radon Poster Contest Awards Ceremony took place in the spacious new auditorium of the University of Georgia Gwinnett Campus in Lawrenceville on November 14, 2008. Approximately 100 students, parents, EPA, DCA and UGA representatives attended the event. The ceremony recognized and honored students from across the state.



Jorge Atilas, UGA Associate Dean, College of Family & Consumer Sciences and Director of the Radon Education Program, served as the Master of Ceremony. Henry Slack, EPA Indoor Air program Manager, welcomed students wearing his “living healthy and green” radon socks.

Keynote speaker, Len Walker, State of Georgia Representative, delivered a motivational speech to the students on success. Tiffany Hudak, Mrs. Georgia 2008, made a special video appearance congratulating the winners. Mrs. Georgia includes radon education as a part of her lung cancer platform. John Arnold, Certified Radon Mitigator, explained his job of correcting radon problems in homes.

UGA Radon Educators, Edda Cotto-Rivera, Ines Beltran, Ginger Bennett and Becky Chenhall hosted the event and presented county awards. Radon mitigators were recognized for their contributions to the ceremony.



Representative Len Walker talks about the secrets of success in life.

The highlight of the program was the announcement of the three state winners. Laura Jolly, Dean of the College of Family & Consumer Sciences, Jorge Atilas, and Joseph Krewer, DCA Radon Grant Administrator presented the trophies and gift certificates to the winners. The state winners are: First Place: Victoria, Gwinnett County, Second Place, Shana, Walton County, and Third Place, John Michael, Hall County. The state winners’ posters were entered in The National Radon Poster Contest sponsored by the National Safety Council.



Following the ceremony, everyone enjoyed refreshments while viewing the county and state winning posters and congratulating the winners.

2008-2009 GA Radon Poster Contest



Contest entrants and their families listened with rapt attention to Rep. Len Walker.

The new Radon Education Program Banners provided a backdrop for the photo corner.



Henry Slack, EPA, shows off his green "Sox it to Radon" socks for the camera.



Victoria, 1st prize winner for her poster entitled "Radon Superhero of the Week," is pictured with Rep. Len Walker, Dean Jolly and Dr. Atiles.



Shana, fifth grader from Walton County received 2nd place for her poster entitled "Radon Doesn't Wait."



John Michael, sixth grader from Hall County received 3rd place for his poster entitled "Invisible but Deadly."

GA Radon Team wins Southern Region Award

The UGA Radon Education Program received the 2008 Southern Region Extension Housing Outreach Award at Galaxy III in September. Ines Beltran and Edda Cotto-Rivera were pleased to accept the award on behalf of the UGA Radon Education team: Dr. Jorge Atilas, Director; radon educators Becky Chenhall, Ginger Bennett, Inés Beltran and Edda Cotto-Rivera; and Nancy Bridges, Madison County FACS Agent. Congratulations to each member of the team!



Galaxy III, held in Indianapolis, Indiana this year, is sponsored by the Joint Council of Extension Professionals (JCEP). Held every 5 years, this conference provides an opportunity for U.S. Extension professionals to network, learn together, and continue to build programs that serve our communities now and into the future. The 2008 theme was *"Celebrating the Extension System: Strengths, Diversity, and Unique Qualities."*



Beltran and Cotto-Rivera took advantage of the opportunity to meet and share with other Extension professionals during the conference. They participated in several seminars, acquiring new information to bring to local Extension Offices in Georgia.

During a side trip to the Indiana State Capitol, Inés and Edda enjoyed visiting with Indiana Governor Mitch Daniels and Indiana athletes who were 2008 Olympians.



Partnering with Southern Co./GA Power

**GA Power Co. Employee Wellness Fair
October 22, 2008**

Savannah Operating Center

Jackie Ogden, Chatham County CEC/FACS agent worked both radon and nutrition exhibits for the event. 12 participants signed up for kits.



**GA Power Co. Employee Wellness Fair
October 22, 2008**

Rome Regional Maintenance Center

Ginger Bennett, Radon Educator, shows an interested homeowner how to complete the required information on the test kit so that the lab can provide an accurate result. 29 kits were distributed.

Radon Interest Increases at Health Fairs



**Hispanic Health Fair
October 5, 2008**

Sponsored by the Mexican Consulate

Ines Beltran, Radon Educator shares radon facts with interested homeowners.

Georgia National Fair

October 7-10, 2008

Walton County Senior 4-H'er, Patty Williams, created this Radon Exhibit to display at the fair in Perry, Georgia.



Quarterly Radon Outreach Report

Program Contacts & Media Impressions for October - December 2008

Program Contacts	Hall/ Dawson	DeKalb	Gwinnett	Elbert	Walton/ Clarke	South- face	Other	Totals
Programs, Meetings, Classes	0	9	8	2	10	25	0	54
Participants	0	291	745	2	287	3	0	1,328
Materials Distributed	0	900	1,000	5	517	0	0	2,422
Exhibits or Events	3	1	1	1	2	4	0	12
Participants	1,110	50	2,000	35	200	190	0	3,585
Materials Distributed	735	160	750	164	50	0	0	1,859
Total Contacts	114	2	0	0	32	552	0	700
Medical Professionals	10	1	0	0	2	0	0	13
Homebuilders	4	0	0	0	30	552	0	586
Realtors	13	1	0	0	0	0	0	14
Direct Consumer Contacts	87	55	0	0	398	45	0	585
Radon Test Kits Distributed	148	148	171	28	164	62	0	721
Test Results Received	94	56	58	21	169	33	0	431
Results above 4.0 pCi/L	31	5	16	2	41	5	0	100
Results below 4.0 pCi/L	47	41	33	16	102	22	0	261
Results incomplete	16	9	9	3	26	6	0	69
% of elevated levels	39.7%	10.6%	32.7%	11.1%	28.7%	18.5%	0.0%	27.6%
Highest Reported Level	21.8	10.7	16.1	7.6	23.4	15.2	0.0	23.4
Mitigations &	0	0	0	0	0	0	0	0
RRNC Starts 1	0	0	0	0	0	3	0	3
Mitigation Referrals	51	10	16	2	41	0	0	120
Media Impressions	Hall/ Dawson	DeKalb	Gwinnett	Elbert	Walton/ Clarke	South- face	Other	Totals
Radio Spots/Programs	0	0	0	175	1	0	0	176
Listening Audience	0	0	0	8,000	6,000	0	0	14,000
TV Spots/Programs	0	0	0	0	2	0	0	2
Viewing Audience	0	0	0	0	35,000	0	0	35,000
Newspaper Articles Published	1	0	1	0	1	0	0	3
Reading Audience	4,000	0	4,000	0	30,000	0	0	38,000
Newsletter Articles Published	0	0	0	1	0	1	0	2
Number Distributed	0	0	0	120	0	3,800	0	3,920
Web Site Hits ¹	1,759					3,599	0	5,358
Total Media Impressions	4,352	352	4,352	8,472	71,352	7,399	0	101,636

¹ Reported by Southface only. Mitigations & RRNC's are reported by UGA on an annual basis in the final fiscal quarter, July-September.

² Web Site Hits are shared equally by the five educators

Radon Outreach Results to Date

Program and Media Impressions

These figures represent programming and media impressions from the beginning of the Radon Program to date (April 2003 through December 2008)

Program Contacts	Hall/ Dawson	DeKalb	Gwinnett	Madison/ Elbert	Walton/ Clarke	South- face	Other ¹	Totals
Programs & Meetings	159	77	177	135	380	923	27	1,878
Participants	4,958	1,407	12,231	3,153	13,741	12,968	2,099	50,557
Materials Distributed	7,626	3,925	11,351	5,252	30,202	5,961	66	64,383
Exhibits or Events ¹	79	16	49	33	80	42	31	330
Participants	31,325	1,486	28,800	10,158	71,240	7,602	2,996	153,607
Materials Distributed	30,634	2,860	13,946	6,392	15,430	1,090	1,346	71,698
Total Direct Contacts	795	48	43	519	942	6,192	52	8,591
Medical professionals	321	11	31	78	561	0	24	1,026
Home builders	179	4	11	401	219	5,626	0	6,440
Realtors	295	33	1	40	162	566	28	1,125
Consumer Contacts	442	70	0	11	598	0	107	1,228
Radon Kits Distributed	5,454	1,347	5,509	2,387	8,390	3,444	4,600	31,131
Test Results Received	1,493	335	1,623	1,142	3,784	532	849	9,758
% 4 pCi/L and above	21.5	22.6	21.6	11.2	22.5	16.1	0.0%	17.4
Highest Reported Level	49.9	12.2	49.0	44.0	37.3	24.4	0	
Mitigations Completed ²	40	0	1	5	16	22	1,365	1,449
Radon Resistant Starts	2	0	0	0	10	386	937	1,335
Mitigation Referrals	202	54	116	56	190	40	0	658
Media Impressions	Hall/ Dawson	DeKalb	Gwinnett	Madison/ Elbert	Walton/ Clarke	South- face	Other	Totals
Radio Spots	41	5	2	2,008	124	1	2	2,183
Listening Audience	2,786,000	620,000	4,000	3,892,000	2,317,000	2,000	377,000	9,998,000
TV Spots	118	66	643	3	230	2	437	1,499
Viewing Audience	25,018,000	1,488,000	73,951,000	5,712	26,614,000	1,263,000	8,385,000	136,724,712
Newspaper	21	1	14	10	52	0	6	104
Circulation	735,000	98,000	1,284,317	143,000	1,725,300	0	69,500	4,055,117
Newsletter Articles	21	0	11	7	32	8	16	95
Distribution	11,400	0	8,246	3,550	1,240,420	903,048	6,054	2,172,718
Web Site Hits ³	12,680					26,113	0	38,793
Total Media Impressions	28,552,936	2,208,536	75,250,099	4,046,798	31,899,256	2,168,048	8,837,554	152,989,340

¹ Madison/Elbert Radon Education Program began in September of 2004.

² "Other" category includes data from radon programming by County FACSI/4-H agents.

³ Data in these categories were not tracked in 2003.

⁴ Tracking of Web Site Hits started October 2006 and are shared equally by radon educators.

⁵ As of Fiscal 2008, Mitigation & RRNC data are reported quarterly by Southface only.

⁶ UGA reports on an annual basis in the final fiscal quarter, July-September, based on annual reports from NEHA/NRSB certified mitigators

Radon Media Outreach



Shana, who won 1st place in the Walton County Radon Poster Contest and second in the state contest, is shown taping a radon public service announcement (PSA) for the local cable television station. The script is shown here.:

“You can’t see, smell or taste radon, but it may be a problem in your home! Radon is estimated to cause 21,000 deaths each year in the U. S. and 822 of those deaths take place here in Georgia. That’s because when you breathe air containing radon, you can get lung cancer. In fact, the surgeon General has warned that radon is the second leading cause of lung cancer in the United States today. Only smoking causes more lung cancer deaths.

Radon can be found all over the U.S. Radon comes from the natural decay of uranium in soil, rock and water and gets into the air you breathe. It can seep into your home through hairline cracks in the foundation and result in a high indoor radon level. You and your family are most likely to get your greatest exposure to radon at home, where you spend most of your time.

The national average predicts 1 out of every 15 homes will have a radon problem—high radon. However, here in Walton County, our results are about 3 times the national average, which means

approximately 1 out of every 5 homes tested will have elevated radon! That’s why I want to encourage everyone to test.

Testing is the only way to know if you and your family are at risk from radon. Testing is inexpensive and easy. It only takes a few minutes of your time. The Walton County Cooperative Extension Office in downtown Monroe even offers free radon test kits to all homeowners.

The good news is that any home with a radon problem can be fixed.

If you are building a new home, it can be built with radon resistance features. The cost is usually less than \$100. It is much more cost effective to reduce radon before the home is built.

Please stop by the Walton County Extension Office and pick up your complimentary radon test kit if you have not yet tested your home.

Thank you.”

Shana’s PSA will air during January National Radon Action Month to help publicize the need for radon testing of all homes and mitigation of those homes who have high levels of indoor radon. Link to [Shana’s PSA](#).

Gearing up for National Radon Action Month

In recognition of National Radon Action Week in October, Becky Chenhall designed a Radon bulletin board in UGA's Dawson Hall. The bulletin board was decorated in red and black with the message "Radon is Real." Twelve small panels included radon testing, lung cancer, how radon gets into a home, uranium decay chart, sub-slab depressurization, selected state risk estimates, and annual deaths from radon induced lung cancer. Walton County 4-H senior, Patty Williams, assisted with the project.



Four student radon poster contest winners. from right to left: Nanki from Oconnee County and Corynne, Micaela, and Loran from Clarke County. Each student recorded a 30-second radon public service announcement (PSA) for National Radon Action Month. Recorded December 8th, the PSAs will be broadcast on ACTV Cable Channel 7 throughout the Athens area during January Radon Action Month.



Even before they received their official green socks, UGA Radon Educators were excited about the theme for the 2009 National Radon Action Month (NRAM): "Living Green Starts From the Ground Up." At their December gathering, Ginger Bennett, Edda Cotto-Rivera, Ines Beltran and Becky Chenhall donned green socks in anticipation of the month of events and publicity planned for NRAM 2009 .



RADON IN THE NEWS



The University of Georgia
Cooperative Extension Service
College of Agriculture

Elbert County Extension Office Update: November 2008

FAMILY & CONSUMER SCIENCES

Risk of Radon

Radon is an invisible, odorless gas that is the second leading cause of lung cancer in the US, behind smoking. Radon enters our homes through the foundation and soil water. The only way to know if radon is present is to test your home. Radon testing is easy and inexpensive. Home test kits available by Georgia Radon Education Program are for residential use because we have more tests above the Environmental Protection Agency's recommended action level. Georgia homeowners can pick up a complimentary test kit from the Elbert County Extension Office, 10 Cleveland Drive in Hartsville, GA. The kit includes the analysis of the Radon test kit and a \$20 charge for analyzing the Radon test kit. Home test kits are \$25 and generally there is a \$20 charge for analyzing the Radon test kit. This means a homeowner can save \$45 a year by saving your home for Radon, which is FREE! If you need more information, call Christa Campbell at (706)283-2037.

Working your home

Have you ever paid to have part of your home remediated? If you have, you may be unaware of the risks of radon. Radon is a natural gas that is found in soil and rock. It is the second leading cause of lung cancer after smoking. Radon enters our homes through the foundation and soil water. The only way to know if radon is present is to test your home. Radon testing is easy and inexpensive. Home test kits available by Georgia Radon Education Program are for residential use because we have more tests above the Environmental Protection Agency's recommended action level. Georgia homeowners can pick up a complimentary test kit from the Elbert County Extension Office, 10 Cleveland Drive in Hartsville, GA. The kit includes the analysis of the Radon test kit and a \$20 charge for analyzing the Radon test kit. Home test kits are \$25 and generally there is a \$20 charge for analyzing the Radon test kit. This means a homeowner can save \$45 a year by saving your home for Radon, which is FREE! If you need more information, call Christa Campbell at (706)283-2037.

Pass It On!

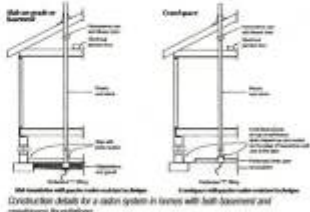
Tell everyone you know about the dangers of breathing radon gas in homes, schools, and workplaces.

Help our educators find groups who may be interested in hosting a radon presentation or exhibit. Contact the radon educator nearest you or give their contact information to organization program planners.

EARTHCRAFT HOUSE

Radon-Resistant Construction Techniques

By Robert Stephenson, EarthCraft House



As the housing market softens, builders are looking for ways to set their projects apart from the competition. A passive radon system is a low-cost item that shows you have the health of your future home owners at heart. The second leading cause of lung cancer after smoking is radon exposure, and it's estimated to be responsible for 822 deaths annually in Georgia. These deaths can easily be prevented through home radon testing and the use of radon-resistant new construction techniques. Radon-resistant construction practices also increase the overall durability and indoor air quality of the home.

Radon is a naturally occurring radioactive gas, resulting from the radioactive decay of uranium, that is present in soil nearly everywhere in the United States and is especially common in granite. It can become trapped in homes due to small cracks and openings in foundations and pressure differences between interior space and the surrounding soil. When radon gas is inhaled for extended periods, it can damage lung tissue and lead to lung cancer.

Some builders may worry that including a radon system in a new home will be viewed negatively by buyers, but a radon system should be highlighted as a healthy investment. Four counties that make up the bulk of metro Atlanta – Cobb, DeKalb, Fulton and Gwinnett – are classified as Radon Zone 1 by the U.S. Environmental Protection Agency, the highest risk level for radon. Homes in Zone 1 counties are predicted to have indoor radon levels at or above the EPA action level for radon mitigation, and installation of a passive radon system is recommended.

A properly functioning passive radon system isolates soil gases, which can include moisture, biological contaminants and pesticides, in addition to radon, and it provides an alternative pathway for these gases to bypass interior living space. These measures will not only protect occupant health but also will help eliminate damp, musty basements and crawlspaces.

The function of such a system is simple, as there are no moving parts. There are five components in a passive radon system:

- a layer of gas-permeable material – a 4-inch layer of loose, clean gravel laid below a slab or a perforated pipe in a crawlspace;
- a minimum of 6 mil polyethylene sheathing;
- sealing of all cracks and openings in the foundation between soil and occupied space;
- a soil gas vent pipe;
- an electrical junction box (for future activation if necessary).

The polyethylene sheathing and sealing provide a barrier between the interior space and surrounding soil, and the gas-permeable layer and vent pipe provide an easy pathway for soil gases to bypass the home and dissipate in the atmosphere. Gases move up the vent pipe due to the stack effect of warm air rising. If a radon test following the completion of the home shows elevated levels, the passive system can be activated through the addition of an intake fan.

The cost of including these passive measures during construction is much less than retrofitting them into an existing home. The average cost of radon mitigation in an existing home is \$1,800, whereas a system installed during initial construction should cost only \$300 to \$500.

A radon-resistant construction addendum has been added to the EarthCraft House worksheet, which guides builders to the credits that can be earned within the program. Measures rewarded include the use of gravel beds below slabs, installation of sealed vapor barriers in crawlspaces and basements and the fitting of passive radon ventilation systems. Further credit is given for testing a new home for radon before occupancy to ensure that passive system activation is not necessary.

To learn more about radon and the techniques you can use in your future projects visit www.earthcraft.org/radon and www.epa.gov/radon/pdts/buildradonaw.pdf.

THE VOICE OF THE INDEPENDENT HOME BUILDERS ASSOCIATION

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18 DECEMBER 2008

ATLANTA

BUILDING NEWS

The Georgia Radon Education Program is funded by the U.S. Environmental Protection Agency in partnership with the University of Georgia College of Family and Consumer Sciences, the Environmental Division of the Georgia Department of Community Affairs, and Southern Energy Institute.

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