



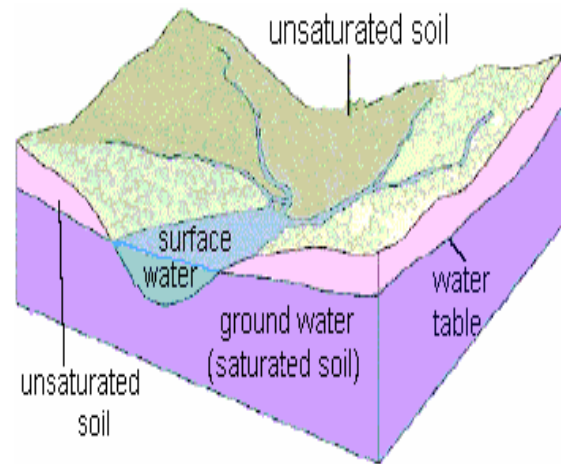
Georgia Chapter Newsletter

February 2006

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Visit the soil educational resources available at the USGS Water Science for Schools website at:
<http://ga.water.usgs.gov/edu/>

57th Georgia Science and Engineering Fair

The Georgia Chapter of the SWCS presented awards in the Junior and Senior divisions at the 57th Georgia Science and Engineering Fair 7-9 April 2005 at the University of Georgia in Athens. Awards were presented for best projects demonstrating soil and water or environmental conservation. Senior Division winner was Jeffery Kirby from South Forsyth High School in Cumming GA. Jeffery's project was titled "The Biological Response of the Downstream Piedmont Benthic Macroinvertebrates Assemblage to Upstream Anthropogenic Perturbation". Junior Division winner was Josh Osif from Austin Road Middle School in Stockbridge GA. Josh's project was titled "Soil Erosion and Irrigation: Which Patterns of Furrows Will Best Prevent Soil Erosion?" Both winners received \$50 and the

library at their school will receive a copy of Aldo Leopold's book "A Sand County Almanac" to commemorate their achievement. Thanks are extended to the judges who helped select the winners: Phil Freshley, Dinku Endale, and



Harry Schomberg. If you are available to help with judging in 2006 please contact Harry Schomberg at 706-769-5631 ext 222 or hhs1@uga.edu.

— from Harry Schomberg, Watkinsville GA

Call for GA Chapter SWCS Awards

DEADLINE: 1 April 2006

To submit a chapter award nomination, the following information will be needed:

- Award category
- Nominee's name, address, telephone, employer, position, member status
- Brief summary (≤50 words) of nominee's contributions to science and art of good land use, using specifics, not platitudes.

Please submit your nominations to Jose Pagan (Awards Chair) at: jose.pagan@ga.usda.gov

Jose Pagan
USDA-NRCS
111 E. Spring St.
Monroe GA 30655-0008
Fax: 770-267-7276
Phone: 770-267-8363 ext 3

Funding Opportunity

The National Fish and Wildlife Foundation (NFWF) Coastal Counties Restoration Initiative provides financial assistance on a competitive basis to innovative, high quality, county-led or supported initiatives that foster community-based wetland, riparian, and coastal habitat restoration projects through project planning and hands-on conservation. These projects will improve habitat for NOAA trust resources, including marine, estuarine, and anadromous fish habitat. Deadline for submission is 24 February 2006. Grant amounts are from \$25,000 to \$100,000. For more information,

access the Community of Science website at: <http://fundingopps.cos.com/> and type in "coastal wetland".

. . . There is Work to Do

"Civilization began around wetlands; today's civilization has every reason to leave them wet and wild."

— Edward Maltby, Waterlogged Wealth, 1986.

Are You Willing to Serve Your Society?

If you have the motivation and ability to serve the Soil and Water Conservation Society of Georgia, then please contact Gary Hawkins (Tel: 229-386-3377; ghawkins@uga.edu), so that your name can be included on the ballot for new officers.

Nominations are being taken for the following positions:

- President Elect
- Secretary
- Treasurer
- Regional Vice-Presidents

If you know of someone that would be interested in serving the Society, if you would



like to nominate someone, or if you are a current officer and would like to re-run, then please send in a short biography that can be sent to all members for the election, which will be completed by 1 May 2006.

— from Gary Hawkins, Tifton GA

Announcement for the 2006 Annual Meeting of the Georgia Chapter

The 2006 Annual Meeting of the Georgia Chapter SWCS is currently being developed. The meeting date and place have been set for 7-9 June 2006 at the Cohutta Springs Conference Center near Calhoun GA (<http://www.cohuttasprings.com>). The theme for the meeting will be using biofuels for soil and water conservation. A number of speakers have already been arranged (Shana Udvardy, Jeff Steiner, Richard Lowrance, Dwight Fisher),

but the program is still being developed. For more information, please contact Dory Franklin (706-769-5631 ext 215, dfranklin@uga.edu) or check the new Georgia Chapter SWCS website, which is scheduled to be available at the end of March. Search google.com with the words "Georgia SWCS".

— from Dory Franklin, Watkinsville GA

Announcement for the 2006 Natural Resources Conservation Workshop

Registration deadline: 1 June 2006

High school students with an interest in our natural resources have the opportunity to take part in the 2006 Natural Resources Conservation Workshop to be held at Middle Georgia College from 25-30 June 2006. The summer camp is open to Georgia high school students ages 15 to 18 who have not graduated from high school at the time of the workshop.

The mission of the workshop is to expose high school students, through multi-agency collaboration, to Georgia's natural resources and the opportunities and responsibilities that they provide. This workshop gives students an opportunity to learn about Georgia's natural resources—soil, water, air, plants, minerals, and animals. "Many of our youth do not realize the value of our natural resources that we depend on every day", said Workshop Director Britt Parker. "The camp utilizes classrooms and field trip activities to help interested young people learn the basic principles and the wise use of our natural resources."

Students attending the workshop will also get a taste of college life while spending an entire week on the college campus of Middle Georgia College in Cochran. Students will be able to gain insight into careers through their counselors and instructors consisting of

professional personnel from the Department of Natural Resources, USDA–Natural Resources Conservation Service, Georgia Forestry Commission, U.S. Fish and Wildlife Service, and many private industries and organizations.

Students will compete for over \$11,000 in college scholarships and cash prizes based on test scores from the week's activities. Scholarship sponsors include the Georgia Association of Conservation District Supervisors, ABAC Foundation, Georgia Chapter of American Public Works Association, Georgia Mining Association, Workshop Scholarship Fund and the Flint River Soil and Water Conservation District.

Tuition is \$150 per student and is usually provided to our students by local Soil and Water Conservation Districts, local businesses and individuals. Application and information is available online at <http://www.abac.edu/psbo/nrcw/> or through county offices of the USDA–NRCS, Georgia Forestry Commission, Department of Natural Resources Wildlife Division or the Cooperative Extension Service and participating organizations.

For more information contact workshop personnel at 229-391-5072 or 478-275-0425 ext 3.

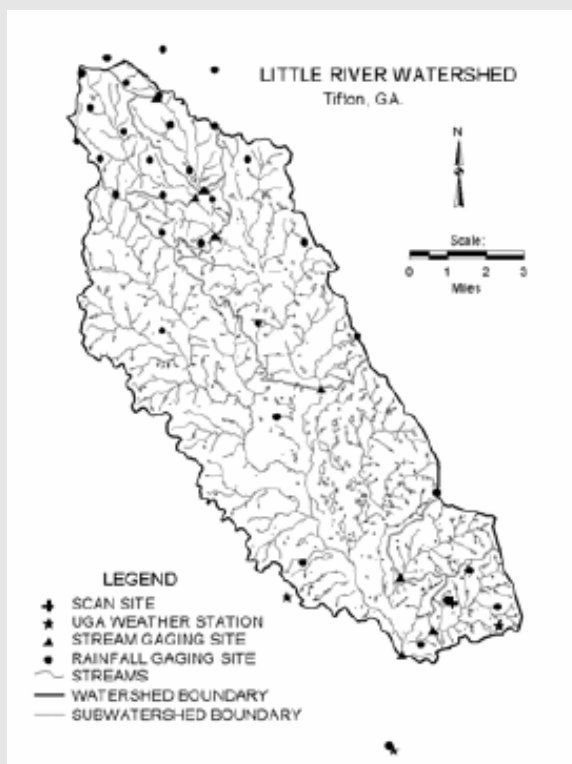
Focus on the Region

Evaluating the Impacts of Conservation Practice Adoption Within a Watershed

— by Dana Sullivan, Region III Vice-President, Tifton GA

The Natural Resource Conservation Agency has partnered with the Agricultural Research Service (ARS) to conduct the “Conservation Effects Assessment Project- Watershed Assessment Studies” (CEAP-WAS). The CEAP-WAS initiative is designed to scientifically assess the environmental benefits associated with conservation program implementation. Across the nation, 12 benchmark ARS watersheds will be evaluated for the soil and water quality benefits associated with conservation programs. Since benchmark watersheds have long-term, detailed databases of hydrology, land use and soil resources, they are ideally suited to evaluate the effects of conservation practices.

The Little River Experimental Watershed (LREW) in south central Georgia is a 334 km² watershed, located in the upper drainage area of the Little River. Within the LREW, five nested subwatersheds range in size from 16-115 km². The USDA-ARS Southeast Watershed Research Laboratory began instrumenting the LREW in 1966. The original instrumentation network contained 55 rainfall stations, 8 stream stage sites, and 3 groundwater stage sites within the stream channel aquifer system.

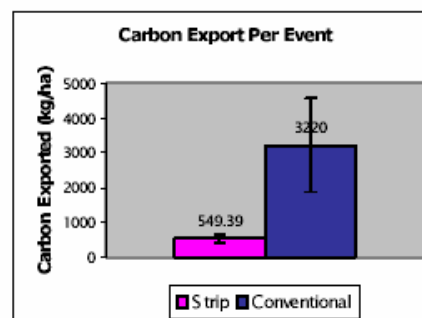
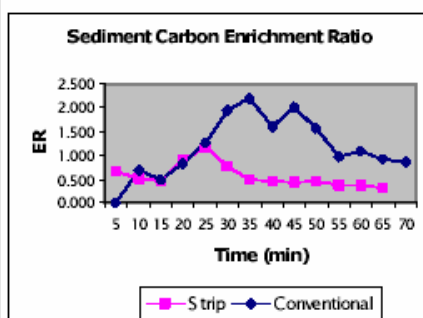
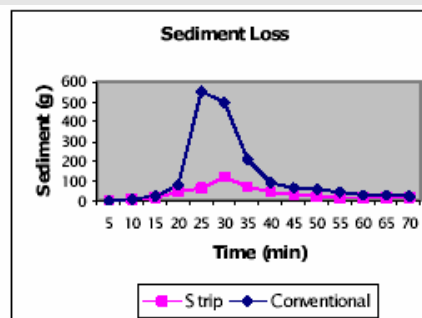
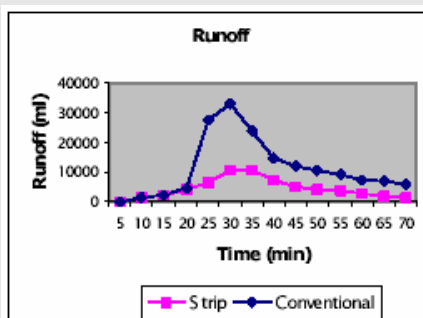


Several CEAP-related research projects are being conducted at LREW using research plots and watershed modeling.

Research Plots

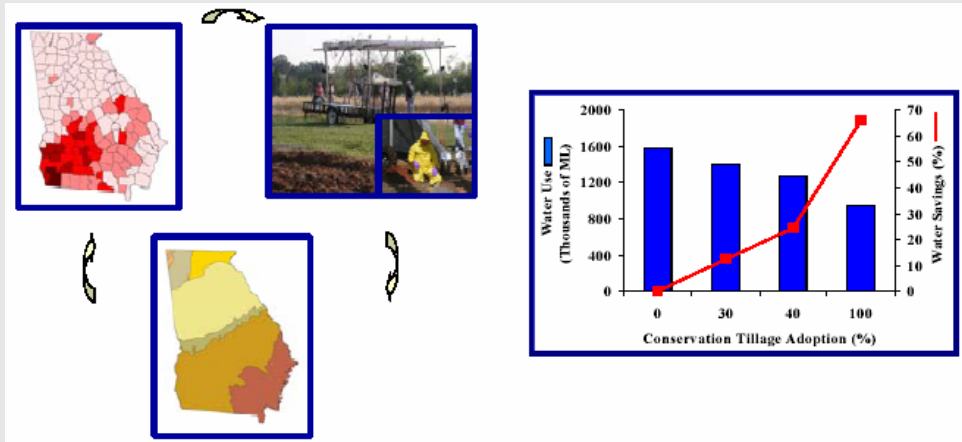
The effect of conservation tillage on runoff, infiltration, soil organic carbon and offsite transport of agrochemicals is being evaluated. At the University of Georgia Gibbs Farm, six years of conservation tillage, in the form of strip tillage, increased soil organic carbon 20% and reduced runoff and sedimentation by 250%.

Moreover, 82% of rainfall or irrigation water infiltrates the soil with strip-tillage compared with only 58% in conventional tillage.



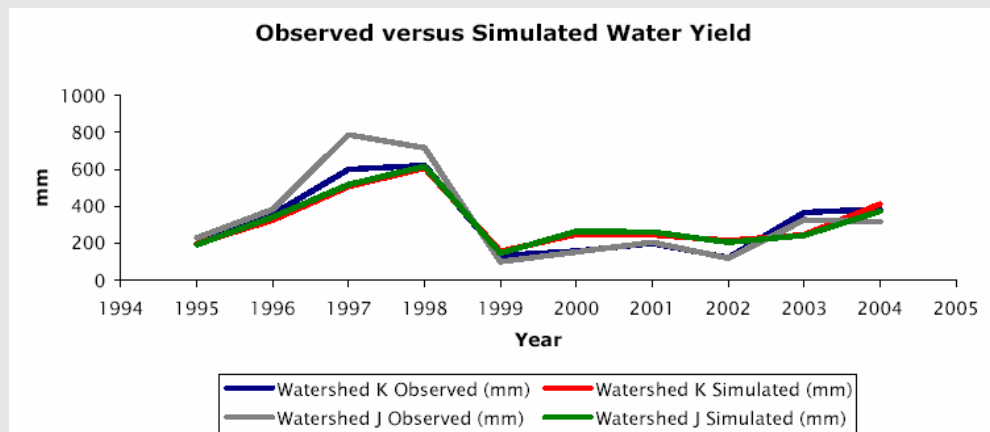
More importantly, conservation tillage was estimated to provide an additional 42% more days of plant-available water compared with conventional tillage. Adoption of conservation tillage can be an effective tool to reduce off-site transport of agrochemicals, increase soil organic carbon content and soil quality, and conserve agricultural water resources.

The Conservation Technology Information Center estimates that about 30% of row-crop producers in Georgia utilize conservation tillage. To evaluate the statewide impact of conservation tillage adoption on water savings, a recent study was conducted integrating observations from research plots



(infiltration and plant-available water) with county level tillage surveys. Results indicated conservation tillage currently reduces irrigated water requirements by 12%. This is equivalent to 7 months (urban county) to 4.5 years (rural county) of water use. By increasing adoption in counties with low conservation-tillage adoption rates, water savings could increase an additional 10%.

Watershed Modeling
Modeling is oftentimes the best way to evaluate the integrated effects of soil, water, and land use on water quality and quantity at the watershed scale. The Soil and Water Assessment Tool (SWAT) model is currently being used by NRCS as the primary method to evaluate the benefits of conservation practices at the watershed scale.



One of the goals of the modeling team at the Southeast Watershed Research Laboratory is to determine whether SWAT-model estimates of streamflow accurately represent actual streamflow in a Coastal Plain watershed. To accomplish this, SWAT model parameters are being calibrated using measured streamflow and precipitation data for a subwatershed of the LREW. The model will be run for an adjacent subwatershed, and the output will be compared to measured streamflow. Results from a recent study indicate that calibrated SWAT model output can reliably forecast streamflow for watersheds in the Coastal Plain of the U.S. Future research will use SWAT to simulate sediment load and pesticide transport.

Animal Waste Education Requirements in the Southern Region

With the increasing importance of reducing environmental impacts and the development of regulations for most confined animal feeding operations (CAFO), education of the individuals that are responsible for manure management is critical. While federal NPDES regulations do not require operator certification or education for CAFO permit holders, many state regulations have imposed educational requirements on either producers or nutrient management planners. A survey of waste management team representatives from each of the 13 states in the Southern Region was conducted to summarize requirements and develop possible cooperative efforts.

Seven states have educational requirements for operators or owners of CAFOs and at least a couple have educational requirements for producers that would like to write their own nutrient management plans. Initial certification courses range in length from 2.5 to 16 hrs and at least 5 of the 7 courses require testing to complete the certification course. In every state, Extension is either directly or indirectly involved in conducting the training and administering the certification program. They also all have continuing education requirements ranging from 2-4 hrs per year. For the most part, it appears that Extension is responsible for supplying most of this continuing education although almost every state mentioned that this is accomplished in cooperation with NRCS, commodity groups and producer organizations, state environmental agencies, and departments of agriculture. Often, one of these other organizations is responsible for approving courses that qualify as continuing education and administering the credit hours.

The educational requirements for these programs appear to be primarily met through traditional methods such as presentations at producer meetings, workshops, field days, conferences, or on-farm visits. At least 2 states are also currently offering some on-line course and an additional 5 states expressed some interest in providing these opportunities in the future.

Nutrient management planner education appeared to be less consistent across the region. In most states, NRCS, technical service providers, or certified crop advisors are responsible for most of the nutrient plan development efforts and NRCS is educating/certifying the planners. Texas, North Carolina, Georgia and New Mexico indicated that Extension was very involved in the education of nutrient management planners. Other states either were not involved or were contributing to NRCS-led efforts. In at least 3 states, producers can participate in educational programs to obtain certification to develop their own plans.

So what does this all mean? It appears that most of us in the region are very involved in educational programs on manure management and will continue to be involved in the future. With time, continuing education requirements are going to constantly challenge us to develop new and innovative programs for producers and planners. Budget constraints will probably force us to cooperate across the region and with other organizations. In reality, much of the information in these educational programs is probably readily applicable to producers across the region with very minor modification. While climatic and regional differences as well as differences in state and local regulations will mandate that we review these materials to insure they are applicable to our producers, I feel we are ripe for the opportunity to move toward regional programming. I also think that we will have to migrate toward new delivery approaches. Many of these larger producers are increasingly techno-literate and are requesting web-based tools and educational programs. While these are expensive to develop, they do not require travel and are ideal for regional efforts. These are some of the goals in the proposal that the Southern Region Animal Waste team recently submitted to Region 4 of EPA. Hopefully, we will be working toward these goals in 2006. For program information in Georgia, visit: <http://agp2.org/aware/>

— from Mark Risse, Athens GA

Report from the UGA Student Chapter

The UGA student chapter last met 31 January 2006 at the Miller Plant Sciences Building in Athens GA. Mr. Thomas Macfie, President of Soil Science Inc. spoke and gave details about the life of a private consultant and answered questions dealing with consultant issues and applying for jobs. Their next meeting will be 21 February 2006, when Dr. Larry Morris is scheduled to speak about "Life on the River," explaining his trips to Brazil.

The chapter plans to mentor Gaines School Elementary students in Athens during March, as part of an American Water Resource Association project.

The chapter plans to order t-shirts with the slogan "I bleed red and black" using the Munsell color codes for red and black.

— from Adam Speir and Karin Lichtenstein, Athens GA

Soil and Water Conservation Society Scholarships

SWCS will offer two scholarships in 2006 to graduate students and conservation professionals. The deadline for submitting applications for the 2006 SWCS scholarships is 13 February 2006.

Financial assistance is available to members of SWCS who want to pursue higher education and professional development through:

\$1300 Kenneth E. Grant Research Scholarship awarded to an SWCS member for graduate-level research on a specific conservation topic.

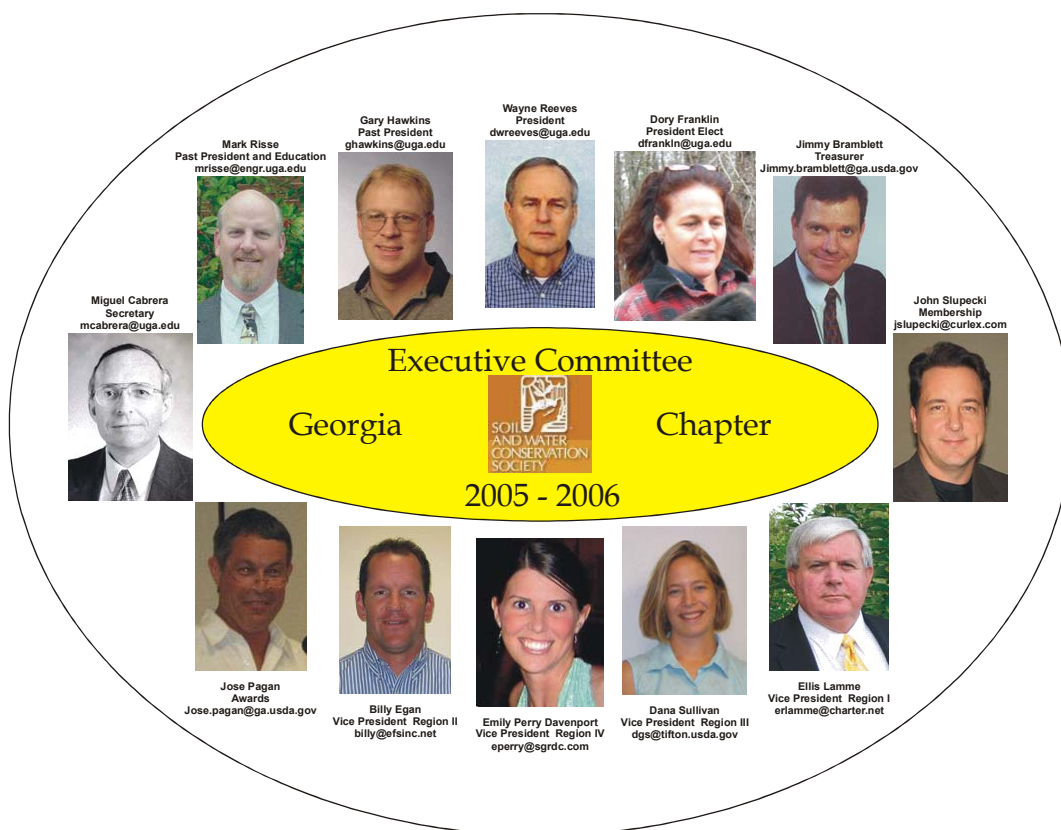
http://www.swcs.org/en/scholarships/research_scholarship/

Donald A. Williams Soil Conservation Scholarship, up to \$1500, offered to members of SWCS who are currently employed but wish to improve their technical or administrative

competence in a conservation-related field. http://www.swcs.org/en/scholarships/soil_conservation_scholarship_7073/

Eligible applicants must have been members of SWCS for at least one year.

Members may also contact SWCS Headquarters (515-289-2331 ext. 12) for more information. Application deadline is 13 February 2006.



In Memory of Harry Hall, 1931 - 2006



Mr. Harry Hall passed away on 31 January 2006 following a battle with cancer. Mr. Hall was a supervisor since 1993 with the Pine Mountain Soil and Water Conservation District in Muscogee County GA. He was the vice-chairman of the district and was on the board of directors in Region 5 for the Georgia Soil and Water Conservation Commission. He championed supervisor training with the GACDS Board and took an active role in teaching children about water resources. He worked with Fort Benning military staff to ensure conservation of state resources during training exercises. He was a retired Lt. Col of the US Army and a member of the Bass Master Club at Fort Benning. Burial was 2 February 2006 at Fort Benning Army Base. His devotion to the State of Georgia, and our Association will be greatly missed. Harry you are dearly loved.

2008: International Year of Planet Earth

The International Year of Planet Earth project was initiated jointly by the International Union of Geological Sciences (IUGS) and the United Nations Educational Scientific and Cultural Organisation (UNESCO). On 11 November 2005, the UN declared 2008 the International Year of Planet Earth. UNESCO will organize activities to be undertaken during the Year, in collaboration with UNEP and other relevant UN bodies, the IUGS and other earth-science societies and groups throughout the world. Goals are to increase awareness of the importance of earth sciences in achieving sustainable development and promoting local, national, regional and international action. More information can be found at:

<http://www.esfs.org/planet.htm>. The project's media spokesperson, Prof. Aubrey Manning (Edinburgh University) stated "Here surely is a unifying cause that can help us to lift our eyes from the pressing demands of the everyday. They must receive our attention but not, surely, our whole attention. We must, as a species, address broader horizons. The International Year of Planet Earth is of fundamental importance because it will appeal to everyone's enlightened self-interest. For those who would argue that everything has a price - then the economic value of the services provided by our planet - clean water, clean air, fertile soils and so forth - have a clear and quantifiable monetary value. A recent study has calculated that that value is three times the total gross

national products of all the nations of the Earth. Our planet will continue to provide this bounty, free, forever - so long as we take care of it...The human race's ingenuity and intelligence effectively put us in charge. As the International Year's prospectus 'The Earth in our hands' says in its very title. We must recognise this, and restrain our future exploitation of this heritage. But it is quite counterproductive to overemphasize problems. There is so much that is positive to communicate. Good science is both fascinating and effective. It can reduce hazards and suggest solutions. But beyond the science, education about the Earth must help in the appreciation of how beautiful our planet is. All of us will know parts of our planet that we find just breathtaking. One for me is the Dorset Coast around Durdle Door. When you close your eyes, you may see Kilimanjaro rising above the African plains; or the Grand Canyon. But wherever your favourite example lies, all of us can see how beautiful the world is - and that is the way to involve the public. We must feel for our planet; appreciate its beauty, and feel a personal sense of hurt if it is damaged, or treated unsustainably. Outreach must be a process of engendering love - a love of our common home. Notwithstanding plate tectonics and Gaia, there can surely be no more grand or unifying theory, than that which says we all share a common home."

Calendar of Events

4-8 Feb 2006. Annual meeting of the Southern Association of Agricultural Scientists. For more information, visit:

<http://www.saasinc.org/Orlando2006/OrlandoMainPage.asp>

5-9 Feb 2006. USDA-CSREES National Water Conference, San Antonio TX.

<http://srwqis.tamu.edu/#>

4 Feb 2006. Conservation, wildlife, and farmland protection workshop in Waco GA. For more information, visit

<http://ugatiftonconference.org/events.htm>

7-8 Feb 2006. Conservation Tillage Training Conference, Tifton GA. Topics will cover crop production, soil fertility, water use, cover crops, and organics. Scholarships are available for farmers. For more information contact Karen McBrayer at 229-386-3416 or karensm@uga.edu. To download an agenda, registration, or vendor form, visit:

www.ugatiftonconference.org/events.htm.

10-11 Feb 2006. Georgia Organics 9th Annual Conference and Trade Show will be held at the Charlie Elliott Conference Center in Mansfield GA. Keynote speaker will be Janisse Ray, author of *Ecology of a Cracker Childhood* and *Wild Card Quilt*. For more information, contact GO at www.georgiaorganics.org, Tel: 678-702-0400, or email at info@georgiaorganics.org.

16-20 Feb 2006. American Association for the Advancement of Science annual meeting, St. Louis MO. www.aaas.org

16 Feb 2006. Poultry producer workshop: Adding value to poultry litter, increasing marketing options and working cooperatively to increase profits, 7:00-8:45 p.m. at the Oglethorpe County Farm Bureau building. Contact: info@oconeeriverrcd.org or 706-769-7922.

18 Feb 2006. Conservation, wildlife, and farmland protection workshop in Athens GA. For more information, visit

<http://ugatiftonconference.org/events.htm>

1-2 March 2006. Annual meeting of the Georgia Conservation Tillage Alliance, Tift County Ag Center, Tifton GA. For more information, contact Lamar Black at lblack35@burke.net.

4 March 2006. Conservation, wildlife, and farmland protection workshop in Tifton GA. For more information, visit

<http://ugatiftonconference.org/events.htm>

11 March 2006. Conservation, wildlife, and farmland protection workshop in Statesboro GA. For more information, visit

<http://ugatiftonconference.org/events.htm>

28-30 March 2006. Watershed Academy: Principles of Water Quality Monitoring, Planning, and Restoration, Athens, <http://www.aces.edu/waterquality/streams/academy5.htm> or mrisse@engr.uga.edu

4-5 April 2006. Georgia nutrient planner certification course in Macon GA. More information at <http://www.agp2.org/aware/> or contact tmbass@engr.uga.edu.

8 April 2006. Ninth annual river rendezvous at the Oconee River. For more information, contact the Upper Oconee Watershed Network (www.uown.org) or Jessica Sterling at sterling@uga.edu.

5-8 June 2006. Annual meeting of the Florida Lake Management Society at the Cas Monica Hotel in St. Augustine FL. Abstract deadline is 1 March 2006. For more information, contact John Burns, 701 San Marco Blvd, Suite 1201, Jacksonville FL 32207, Tel: 904-232-1563, Fax: 904-232-1056, Email: jwburns@pbsj.com.

7-9 June 2006. Annual meeting of the Georgia Chapter of the Soil and Water Conservation Society at Cohutta Springs Conference Center near Calhoun GA. For more information, contact Dory Franklin (706-769-5631 ext 215, drankln@uga.edu).

11-13 Oct 2006. Workshop on Managing Agricultural Landscapes for Environmental Quality: Strengthening the Science Base.

Submit abstracts for oral and/or poster presentation at a workshop that will be held at the Westin Crown Center Hotel in Kansas City MO. Deadline for abstract submission is 1 June 2006. For more information, visit:

http://www.swcs.org/en/swcs_international_conferences/managing_agricultural_landscapes/.

Newsletter Contacts

Newsletter edited by Alan Franzluebbbers. Please send noteworthy information to be included in future issues to:

E-mail: af Franz@uga.edu

Fax: 706-769-8962

Mail: 1420 Experiment Station Road,
Watkinsville GA 30677-2373

Newsletter liason with the University of Georgia student chapter is Karin Lichtenstein:

E-mail: klichten@uga.edu

Fax: 706-542-0914



Spotlight on Cecil

Taxonomic class:

fine, kaolinitic, thermic Typic Kanhapludults

Cecil soil consists of very deep, well drained moderately permeable soils on ridges and side slopes of the Piedmont uplands. It is estimated that Cecil soils are on nearly one-third of the Piedmont Plateau. They are deep to saprolite and very deep to bedrock. They formed in residuum weathered from felsic, igneous and high-grade metamorphic rocks of the Piedmont uplands. The Bt horizon typically has clayey texture with up to 70% clay, dominated by low-activity clays such as kaolinite and hydroxy-interlayered vermiculite. Slopes range from 0 to 25%. Mean annual precipitation is 48" and mean annual temperature is 59 °F near the type location.

Cecil soils are well drained, have medium to rapid runoff, and have moderate permeability.

About half of the total acreage on Cecil is in cultivation, with the remainder in pasture and forest. Cecil soils occur on >10 million acres.

The Cecil series was established in Cecil County MD in 1899.