

THE SOIL TUNNEL



A NEW CONSERVATION EDUCATION TOOL

to learn more see pages 3 & 4

2011 Annual Report

**BLACKWATER SOIL & WATER
CONSERVATION DISTRICT**

2011 OVERVIEW

The year 2011 was an especially challenging one, particularly for the country's farmers and ranchers. Our area, along with many others across the South, endured a harsh drought throughout this year's growing season. The La Nina weather pattern was to blame for this moisture restriction, with a high pressure system suspending the usual summer storms.

This dry weather considerably hampered the year's crop production, most notably peanuts whose yields were so low that a shortage resulted. Consumers were hit

in the pocket books by this shortage when peanut butter prices jumped thirty percent.

The drought only compounded the economic stresses already being felt by our local farmers in this recession. It is in times like these that farm bill programs can be particularly beneficial. Not only do these programs help offset some of the costs incurred by farmers today but the conservation practices they help install reduce potential resource damages caused by bad weather. In dry years, practices such as conservation tillage and cover crops can help preserve

moisture in the topsoil and limit wind erosion. These practices help maintain healthy soil and water resources for the benefit of the land, the people who rely on it for a living, and all those who depend on the goods provided for survival.

It is for these reasons and more that conservation practices are so vitally important and why Blackwater SWCD sees program delivery as its top priority. The district often partners with farmers providing technical assistance installing conservation systems that improve our



“FARM BILL PARTICIPATION IN FISCAL YEAR 2011 RESULTED IN MORE THAN \$1.5 MILLION DOLLARS ENTERING SANTA ROSA COUNTY FOR CONSERVATION TREATMENTS.”



natural resources, all the while helping them meet their agricultural production goals.

The county was very fortunate to receive a significant amount of financial assistance from this year's farm bill programs. The bulk of the federal funding came from the Environmental Quality Incentives Program, which addresses critical resource concerns with the establishment of site specific conservation measures such as grade stabilization structures, conservation tillage systems, precision agriculture, pasture or hay planting, fencing, and hoop houses. Other funding came from the Wildlife Habitat Incentives Program that



promotes the reestablishment of longleaf pine forests and the Conservation Stewardship Program that encourages the enhancement of existing conservation activities.

For over 60 years the district has served the people

of Santa Rosa County, helping identify and solve natural resource problems. With federal funding cuts and state legislative threats, meeting the community's conservation needs is getting tougher but the district as always will do its best to overcome these challenges for the good of all.



SOIL TUNNEL

This fiscal year a new educational display was debuted by the district at area schools. Known as a soil tunnel, it was built by district staff with funds provided by Three Rivers RC&D Council, Incorporated. The tunnel's design was conceived by employee Candice Tritt. After reviewing a variety of other tunnel styles, she formulated a unique design tailored to Santa Rosa County.

The construction phase involved building a four foot by eight foot rectangular plywood box, held together with heavy duty hinges for quick assembling and

disassembling. The entire box was then painted in colors that reflect an actual local soil type, known as Lucy, and its soil profile. The top of the box was designed to fit eight, two foot by two foot, foam board panels, painted dark brown to represent the topsoil. The interior walls also had animal burrows and call outs with microscopic



“A MULTI-SENSORY LEARNING TOOL DESIGNED TO TEACH STUDENTS ABOUT SOILS AND THEIR CHEMICAL, PHYSICAL, AND BIOLOGICAL PROPERTIES.”



views of mycorrhizal fungi, soil protozoa, and soil bacteria painted on them.

Besides promoting soils and soil formation, Candice wanted the soil tunnel to also reflect the role soils play in their ecosystem and in the web of life. This was accomplished by focusing on the local longleaf pine ecosystem; simulating flora and fauna from this particular environment. Paper mache, artificial, and real life props such as a cut-over longleaf pine stump, longleaf pine straw and cones, ferns, a black racer snake, and several



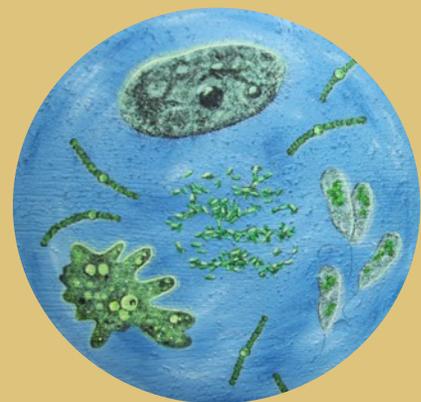
SOIL TUNNEL



kinds of insects were added to the top. Roots, worms, a mole, and a gopher tortoise were placed within the tunnel to represent the life forms typically found underground in these ecosystems. One corner of the tunnel also mimics a lowland wet area with saturated gray soils, the beginnings of a pond, and a crayfish in its preferred habitat.

used at a couple of school career days. District staff first give a fifteen minute talk on the science of soils, hoping to generate some curiosity. Afterwards, the students crawl through the tunnel and get the unique opportunity to explore the complex world beneath their feet. This interactive, visually stimulating, program was a big hit with the kids. The soil tunnel seems to help students retain more by attaching the scientific facts to their associated imagery.

“ONE CUP OF SOIL
MAY HOLD AS MANY
BACTERIA AS THERE
ARE PEOPLE ON
EARTH.”



Since its completion, the soil tunnel has been set up and

POSTER CONTEST



Blackwater SWCD participated, once more, in the National Association of Conservation Districts' annual poster contest. The theme from this year's contest was "Forests for People, More Than you can Imagine." The competition allows students to convey their own unique conservation message about forests through a creative process. Submitted posters have to also meet certain criteria in order to qualify for the contest including requirements covering poster size, medium usage, and title. The posters were evaluated

and judged based on their conservation message, visual effectiveness, originality, and universal appeal.



This year's poster contest had entries for two separate

grade categories. A first, second, and third place winner was selected, by the district board, from each category. Placement medals were given to these students to commemorate their wins. The two first place winners qualified to advance to the state Association of Florida Conservation Districts' contest. Both these posters placed third in their respective grade category. These two students were given a certificate of participation and a monetary prize for their achievements.

GRADE 4 - 6TH

1ST PLACE - KELLY WU

2ND PLACE - KYLE RUTLEDGE

3RD PLACE - GABRIELLE THOMAS

GRADE 7 - 9TH

1ST PLACE - SAVANNAH GOETTE

2ND PLACE - LINDSEY HARRISON

3RD PLACE - JOSHUA RUTLEDGE



LAND JUDGING



HIGH SCORE WINNER

KARISSA HEBNER
(MILTON HIGH SCHOOL)

TEAM WINNER

JAY HIGH SCHOOL
(SENIOR TEAM 1)
CODY ENGLISH
CONNER WEEKES
J.D. ATKINS
JOE LAMBETH

The district teamed up again with the Santa Rosa County School Board to hold the annual Land Judging Contest. This event tests local high school FFA teams' knowledge of soils and soil characteristics such as texture, permeability, slope, erosion, and drainage. This year's contest was held at Camp Paquette within Blackwater State Forest and was kindly provided to us by the Florida Forest Service.

During the competition, the students examine four sites in which the soil has been exposed for several feet evaluating specific soil conditions and answering questions along the way. Their responses are used to

develop their scores and for determining the year's winning team and individual high scorer.

Those attending this year's event included students, teachers, school board members, parents, NRCS and district personnel, earth team volunteers and others within the community. Thanks to the hospitality of the school board and the FFA chapters lunch was provided to all, following the contest.



STATE LAND JUDGING



COOPERATING GROUPS

- FL STATE LAND JUDGING COMMITTEE
- FL DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES
- UF, INSTITUTE OF FOOD AND AGRICULTURAL SCIENCES
- UF, WEST FLORIDA RESEARCH AND EDUCATION CENTER
- ASSOCIATION OF FLORIDA CONSERVATION DISTRICTS
- USDA, NATURAL RESOURCES CONSERVATION SERVICE
- FL ASSOCIATION OF ENVIRONMENTAL SOIL SCIENTISTS
- FL CHAPTER, SOIL AND WATER CONSERVATION SOCIETY
- FL DEPARTMENT OF EDUCATION
- FARM CREDIT OF NORTHWEST FLORIDA
- SANTA ROSA FARM BUREAU
- THREE RIVERS RC&D

For the first time ever, the Florida State Land Judging Contest was held in Santa Rosa County this past spring. The district was honored to host this event, an annual state-wide competition now in its fifty-second year.

Winning high school and middle school FFA/4H teams, from counties across the state, converged at the University of Florida's Institute of Food and Agricultural Sciences-West Florida Research and Education Center's Jay Research Farm to participate in this year's event. This location, which was chosen for its

diversity of soil types, includes some of the county's finest class I farmland soils.

The competition is structured identical to the local contests, in which students study the vertical soil profiles at four sites and then infer land use decisions based off of their soil observations. Students participating in land judging gain a greater understanding of soils and the role they play in determining the suitability of certain land management activities. This knowledge provides them with the ability to make wise land use decisions that



STATE LAND JUDGING

are beneficial to not only the land but the landowner as well. Following the contest's site evaluation the students, coaches, and contest officials all enjoyed a lunch of hot dogs and hamburgers provided by the sponsors and prepared by district staff and earth team volunteers. Activities afterward included a tour of the research farm and a program filled with influential speakers like Susan Reese, Representative for Florida's Commissioner of Agriculture - Adam Putnam. The day was at last finished up with the presentation of awards to

the winning teams and to the individual high scorers.

Blackwater SWCD would like to thank the many individuals and agencies involved in the planning and execution of this contest. Without their commitment and hard work this event would not have been possible. The district would like to extend a special thanks to the sponsors Farm Credit of Northwest Florida, Santa Rosa Farm Bureau, and Three Rivers RC&D for their generosity; to Dr.

Dr. Mullahey, UF/WFREC Director for furnishing the location; and Dr. Ellis, UF Assistant

Research Professor/Soil and Water Science Department for overseeing the contest.

1ST PLACE WINNERS

TEAMS

HIGH SCHOOL FFA
FORT WHITE SR.

HIGH SCHOOL 4H
MANATEE SR.

MIDDLE SCHOOL FFA
BETHLEHEM

MIDDLE SCHOOL 4H
MANATEE JR.

INDIVIDUALS

HIGH SCHOOL FFA
SARAH CHAMBERS (FORT WHITE SR.)

HIGH SCHOOL 4H
SAMUEL BYERS (MANATEE SR.)

MIDDLE SCHOOL FFA
DAYTON RYKER (BELL)

MIDDLE SCHOOL 4H
SAM WEST (MANATEE JR.)



BLACKWATER SOIL & WATER CONSERVATION DISTRICT



THE DISTRICT WOULD LIKE TO ACKNOWLEDGE THE FOLLOWING
AGENCIES FOR THEIR VALUABLE SUPPORT AND COOPERATION:



**SANTA ROSA BOARD OF
COUNTY COMMISSIONERS**



**SANTA ROSA COUNTY
SCHOOL BOARD**



**NATURAL RESOURCES
CONSERVATION SERVICE**



FARM SERVICES AGENCY



**DEPARTMENT OF
ENVIRONMENTAL PROTECTION**



FLORIDA FOREST SERVICE



**THREE RIVERS RESOURCE
CONSERVATION AND
DEVELOPMENT COUNCIL, INC.**



**EXTENSION OFFICE
UNIVERSITY OF FLORIDA,
IFAS**

CONTACT INFO:

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Milton, Florida 32570
(850) 623-3229 Ext. 3**

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