

## **NRCS SC STATE TECHNICAL COMMITTEE MEETING MINUTES**

*March 3, 2015, 9:30 a.m.  
South Carolina Forestry Commission  
Columbia, SC*

**Present:** Ruth Book (Acting, STC NRCS), Evelyn Whitesides (SRC, NRCS), Sabrenna Bryant (SC NRCS) Kellee Melton (SC NRCS); Reginald Hall (SC NRCS), Frances Gibson (United Farmers, USA - Landowner); Russell Hubright (SCFC) Sam Cook (Center for Heirs Property), Willie Simmons (DNR), Dave Lamie (Clemson), Phil Bauer (USDA ARS), Gordon Mikell (NRCS), Dick Yetter (NRCS), Travis Mitchell (SC Cattleman's Assoc.), Scott Phillips (SCFC), Noel Myers (APHIS), Greg Yarrow (Clemson), Kenny Mullins (Richland SWCD), Marc Cribb (DNR), Wendy Adams (NAAS), Joe Cockrell (USFWS), Fred Taylor (Lexington SWCD), Guy Sabin (SCFA), Johnney Haralson (SWCD), Breck Carmichael (DNR), Chanda Cooper (Richland SWCD), Karen McSwain (CFSA), Lee McElveen (Commission for Minority Affairs), Marcy Hayden (Commission for Minority Affairs), Bill McMeekin (SC Farm Bureau), Marjorie Palmer (TNC).

### **Opening remarks from Ruth Book, Acting State Tech Committee Chair/SC NRCS - State Conservationist:**

- Welcomed all participants; provided brief introduction of self
- Conducted roundtable introduction

### **Comments from Gene Kodama, State Forester, SC Forestry Commission**

- Welcomed all to Forestry Commission

### **Comments from Kellee Melton, SC NRCS - Assistant State Conservationist for Programs:**

- Environment Quality Incentives Program (EQIP) – FY 2015
  - Initial Allocation of \$11.9 million
    - LLPI - \$986,000
    - NWQI - \$186,000
    - StrikeForce - \$840,000
    - Gopher Tortoise - \$91,000
    - Two Chief's Partnership Award - \$180,000
  - Applications received by December 19, 2014 are currently being ranked
    - April 3 - ranking deadline
    - May 8 - contract approval deadline
    - May 27 - contract obligation deadline
- Conservation Stewardship Program (CSP) - FY2015
  - General sign-up ongoing including a LLP component
    - Application deadline extended to March 13
    - Currently 180 applications have been received
    - 7 million acre cap for FY 2015
  - 2011 Renewals ongoing
    - Application deadline is March 31

- 129 contracts are eligible for renewal
- Agricultural Conservation Easement Program (ACEP) – FY2015
  - Final Rule was just published to Federal Register
  - States are awaiting NHQ guidance before ranking applications
  - WRE component will use Appraisal instead of GARCs for FY 2015 and forward
  - Initial allocation was \$1.7 million
    - ALE – 4 applications
    - WRE – 10 applications
- Regional Conservation Partnership Program (RCPP) – FY2015
  - Funded 2 proposals for FY2014/2015 SIGN-UP
    - State – Clemson University and SC DNR  
EQIP – Energy Efficiency in Poultry Houses  
\$1.2 million
    - CCA – U.S. Endowment  
ACEP – Easements and Military Installations  
\$12 million
  - RCPP Workshop – March 25

Any additional questions or thoughts regarding programs can be directed to Kellee Melton, Assistant State Conservationist for Programs, [kellee.melton@sc.usda.gov](mailto:kellee.melton@sc.usda.gov)

### **Comments from Dick Yetter, SC NRCS – State Biologist, Acting State Resource Conservationist**

- Food Security Act Compliance and the 2014 Farm Bill
  - Re-established the link between subsidies for Federal Crop Insurance premiums and conservation compliance
  - All participants who want to be eligible for the crop insurance subsidy must file an AD 1026 form before June 1, 2015 to be eligible for the subsidy
  - For FSA and NRCS participants there is no change in the rules for compliance, even if they intend to purchase federal crop insurance. They would have an AD 1026 form on file, if they are eligible to participate in FSA or NRCS programs.
- Updates to Tech Guide Notice 343 posted on the eFOTG in Section I
  - A review of some of the changes to our Conservation Practices, technical information, planning tolls and reference material.
- CRP updates:
  - A review and revision of the South Carolina FSA CRP soil list for CP 36, Longleaf pine suitability
  - Review of the suspension of the 391 A, Riparian Forest Buffer Addendum for CP 21 Riparian Forest buffers in CRP. As of October 1, 2014, all CR 21 Riparian Forest Buffers must meet to the NRCS Conservation Practice Standard.

- A review and revision of the South Carolina CRP amendment 2, job sheets. NRCS, the SCFC and SC DNR have revised the plants list and some of the management requirements for all of the CRP practices.

Address questions or comments to Dick Yetter @ [dick.yetter@sc.usda.gov](mailto:dick.yetter@sc.usda.gov)

### **Comments from Jill Epley, SC NRCS, Natural Resource Specialist**

- SC Conservation Innovation Grant Workshop
  - March 4, 2015, Farm Bureau Auditorium
  - SC NRCS will announce availability of state competition CIG to stimulate the development & adoption of innovative conservation approaches and technologies
  - Funding availability
  - SC NRCS CIG Program Timeline
  - General Program rules review & explanation
  - Requirements for grantees
    - ❖ Grant management
    - ❖ Reporting
    - ❖ Documentation for reimbursement
  - Program Requirements & Information
    - ❖ Applicant eligibility
  - Project Eligibility
    - ❖ Projects or activities under CIG must comply with all Federal, State, and local regulations throughout the duration of the project.
    - ❖ Submission Information for Pre-proposals
    - ❖ Submission Information for full proposals
- CIG FY15 Announcement for Program funding – SC
  - USDA NRCS is announcing availability of CIG to stimulate the development and adoption of innovative conservation approaches & technologies
  - Proposals will be accepted from South Carolina.
  - NRCS anticipates that the amount available for support of the program in FY15 will be up to \$300,000.
  - Proposals are requested from eligible governmental or non-governmental organization or individuals for competitive consideration of grant awards for projects between 1 & 3 years in duration.
  - Funds will be awarded through a two-phase nationwide competitive grants process that will include:
    - ❖ Pre-proposal process
    - ❖ Full proposal process
  - Dates –

- ❖ Pre-proposals must be received by NRCS before 4:00 p.m. on April 17, 2015.
- ❖ NRCS will announce selected pre-proposal by May 5, 2015.
- ❖ Selected applicants will then be required to submit a full proposal package to NRCS by 4:00 p.m. on June 9, 2015.
- ❖ Obligate fund August 1, 2015.
- ❖ Start date September 30, 2015
- ❖ Proposals sent via USPS, express mail or overnight courier service must be sent to the following address: USDA/NRCS, CIG Program, ATTN: Angela Snell, 1835 Assembly Street, Room 950, Columbia, SC 29201
- SC Grazing Lands Coalition Reorganization
  - GLC is a nationwide consortium of individuals and organizations working together to maintain and improve the management and health of the Nation's Grazing Land
  - GLC seeks to carry out its activities through local, state and national partnerships.
  - Goals and outcome GLC supports:
    - ❖ Increased Technical Assistance
    - ❖ Research and education
    - ❖ Cooperative Conservation
  - SC GLC recently receive a national CIG to educate private landowners about soil health on grazing lands through workshops & pasture walks.
  - SCDNR, SWCDs, Clemson Extension, United Farmers & NRCS all submitted letter of support for this grant.
  - A rainfall simulator has been purchased with the grant will arrive soon.
  - SCDNR staff will be trained to operate the rainfall simulators and provide several workshops over the next three years to show how grazing management affects soil health
  - SC GLC has been inactive since 2002, but never officially dissolved
    - ❖ A majority note to reorganize the SC GLC is needed to move forward with the revitalization of this organization.
    - ❖ The following organizations are the charter and current voting member of the SC GLC:
      - ✓ SC Cattlemen's Association
      - ✓ SC Farm bureau Federation
      - ✓ SC Association of Conservation Districts
      - ✓ SC Forestry Association
      - ✓ SC Sheep Industries Association
      - ✓ SC Horsemen's Council
  - Seeking voting members support and participation in this effort.
  - Two organization meetings have been held ; next meeting TBD

- GLCI National Conference on Grazing Lands Call for Papers
  - Conference provides a forum for open discussion and exchange of information, technology transfer, identification of research & program needs marketing of products, services & other benefits of grazing.
  - 4 tracks for white paper & poster abstract opportunities
    - 1) Western grazing lands
    - 2) Central grazing lands
    - 3) Eastern Grazing lands
    - 4) Dairy grazing land management
      - ❖ Within each track, conference sponsors are accepting abstracts for both oral and poster papers in the following categories
        - ✓ Ag/Urban Interface
        - ✓ Cutting Edge Grazing Management
        - ✓ Grazing Land Economics & Marketing
        - ✓ Public Policy
        - ✓ Grazing Lands/Soil Health
  - Abstracts should be 400 words or less
  - Abstract submission deadline is May 1, 2015 & abstracts should be submitted electronically at <http://www.cevent.com/d/f4qyz7>
  - Conference will be held in Grapevine, TX, December 13-16, 2015.
  
- Address questions or comments to Jill Epley [jill.epley@sc.usda.gov](mailto:jill.epley@sc.usda.gov)

**Comments from Sourav Banerjee, Ph.D., P.E. Assistant Professor USC**

- Uncertainty Driven Computational Biomechanics (UBC)
- 3 USC faculty member with complementary expertise:
  - ✓ Sourav Banerjee - mathematical modeling
  - ✓ Anindya Chanda – fungal biology
  - ✓ Gabriel Terejanu – computational science
- Current problem of interest is the emerging risk of crop contamination with mycotoxins.
  - ✓ Mycotoxins are naturally occurring toxin chemical products produced by fungi that readily colonize crops
  - ✓ Some of these mycotoxins, such as aflatoxins are potent carcinogens and have been directly correlated to adverse health effects, such as liver cancer
  - ✓ Mycotoxins are a serious global issue, with 5 billion people at risk of carcinogenic exposure.
  - ✓ For the US agriculture, the mycotoxin management cost reached \$.25 billion annually.
  - ✓ Unfortunately, the detrimental effect of mycotoxin will only get worse due to climate change.

- ✓ Higher temperatures, humidity and more frequent stores, will increase the infection of crops by fungi and therefore increase the probability of mycotoxin occurrence.
- Mycotoxin contaminations are by no means strange to South Carolina. A mediatized pet food contaminated with aflatoxin had prompted a SC food producer to recall its products nationwide in 2005.
- Incidents of high levels of aflatoxin that exceed FDA standards for human food and animal feeds can be found in reports such as this one, produced in 2012 by Neogene. This type of incident directly affects the profitability of farmers, health of consumers, and has a potential detrimental effect of various ecosystems due to agricultural runoffs.
- Our approach to address this problem, is to develop a software product that makes predictions regarding the geographical distribution of mycotoxins. The hazard maps will inform farmers on the best time to harvest and isolate contaminated crops to mitigate mycotoxin effects.
- The current practice deals with mycotoxins after harvesting (mainly through dilution). What we propose is to produce actionable information before harvesting to reduce the mycotoxin effects.
- This is a challenging issue, as mycotoxin levels are virtually unobservable. While, indeed sparse local measurements are available, it is virtually impossible currently to have a systematic approach to determine the geographical distribution of mycotoxin occurrence.
  - What we propose is to develop an understanding of mycotoxin production from very small scales and its relation to factors such as temperature and humidity, which we can use to solve this multiscale problem and have regional predictions.
- We are well equipped to solve this problem. We have a wet lab, state of the art light and acoustic microscopes, as well as computational capability and expertise.
- Our scientific approach makes use of the three pillars of science experiments, theory and computation to build computational models for predicting mycotoxin occurrence.
- Currently our team has 15 members comprising faculty, graduate and undergraduate students.
- Agricultural run-offs present an important environmental pathway for mycotoxin transport to streams and for understanding ecotoxicological impact on aquatic biota.
- This article documents that the detections of mycotoxins were nearly found everywhere samples from agricultural areas, with at least one mycotoxin being detected in 94% of the 105 samples collected.
- We believe that the tools that we develop have broader reach than just agricultural. They can be used in assessing and mitigating eco-toxicological impacts of mycotoxins due to agricultural runoffs.
- We are looking for collaborators to exchange expertise, data and write proposals.

- Address questions or comments to Sourav Banerjee, Ph.D., PE. at [banerjes@cec.sc.edu](mailto:banerjes@cec.sc.edu)

**Comments from Dr. Buz Kloot, Richland SWCD CIG Grant**

- Using Co2 Burst Test to Measure on-farm Plant Available Nitrogen from Cover Cropped Soils in South Carolina

- Our Project
  - ✓ Use cover crops to build OM
  - ✓ Use new method to estimate Nmin from soil respiration
  - ✓ Do side side-by side tests on the farm
  - ✓
- Treatments

Fields	Est Nmin (lb/ac) based on soil CO <sub>2</sub> -C	Crop	Standard N Application (lb/ac)	Low N Application (lb/ac)
Carl	~40	Corn	120	65 (-55)
Jason	~40	Soybeans	N/A	N/A
Alan	~25	Corn	120	95 (-25)
John	~25	Milo	90	40 (-50)
Sonny	~25	Cotton	90	55* (-35)

Est N In Cover Crop (lb/ac)
~170
~190
~ 10
~240†
~270†

† winter peas – 3% N\*Plus a check strip – 0 N

➤ Yield Results

	Std N	Low N	
Carl -Corn (bu/ac)	33	32	Bad rainfall on that field
Jason -Beans	N/A	N/A	
Alan -Corn (bu/ac)	183	126	Compare to corn next slide
Sonny -Cotton (lb/ac)	1014	1143	Check strip (0 N) - 928 lb/ac!
John - Milo (bu/ac)	110	134	

86 lb cotton ~ \$52, 90 lb N ~ \$63

- Living Carbon & Nitrogen
- The Food
- P&K
  
- Summary top 6"
- Soil at Depth

	Nov-13	Apr-14	Nov-14	Significant Diff?
Solvita 1-day CO2-C (ppm)	18	22	26	No
WEOC (ppm)	98	95	98	No
WEON (ppm)	6	12	14	Yes
Organic C:N	16	8	7	Yes
Inorganic N (lb/ac)	28	4	6	Yes
P (lb/ac)	94	105	108	No
K (lb/ac)	137	146	142	No
%OM	1.15	1.17	1.54	No

CEC meq/100g	4.9	4.5	5.3	No
--------------	-----	-----	-----	----

### Comments from Brent Carmichael, SC Department of Natural Resources

- At the last State Technical Committee (STC) meeting, the STC was provided information on the South Carolina Department of Natural Resources (SCDNR) bobwhite quail/grassland bird habitat restoration plan. One of the strategies identified in the Plan was to establish a State Quail Council to develop a shared vision of bobwhite management among state and federal agencies and organizations, and private landowners and to facilitate and monitor habitat restoration progress on a statewide scale.
- On December 10, 2014 the first meeting of the SC Quail Council was held in West Columbia at the Phillips Market Center, State Farmers Market. Thanks are due to the SC Department of Agriculture and Commissioner Hugh Weathers for making the facility available and to the Harry Hampton Wildlife Fund for underwriting the cost of the meal served.
- This inaugural meeting was a tremendous success, with 46 persons in attendance, representing 5 Federal agencies, 7 State agencies, 13 non-governmental conservation organizations and 5 private landowners. The group heard a presentation on the National Bobwhite Conservation Initiative (NBCI), the 25-state unified strategy to restore wild quail through landscape scale habitat restoration, given by national NBCI Coordinator Don McKenzie. That was followed by a presentation on SC's Plan, provided by SCDNR Small Game Project Supervisor Willie Simmons. The specific roles the SC Quail Council might play were then discussed, with a Q & A session and identification of next steps.
- There was unanimous agreement that the formation of the SC Quail Council would be embraced by all agencies, organizations and individuals present, with the statement "we need to meet again sooner than later"!!
- The next meeting will take place in late March (specific date and location being finalized) and the group will be discussing organizational structure, the potential for entering into a memorandum of Agreement, and the establishment of at least 2-4 Focal Areas in high priority areas of the state as identified in the SC Plan.
- The 2014 Farm Bill combined a number of existing conservation programs, including folding the Wildlife Habitat Incentives Program into the Environmental Quality Incentives Program (EQIP), with a stipulation that *at least 5%* of EQIP dollars must be expended on wildlife.
- Because it is such a high priority for our State, the SCDNR requests that *at least 5%* of EQIP funding (financial assistance, and technical assistance if possible) be concentrated into the private lands residing within Focal Areas identified by the SC Quail Council to facilitate landscape scale habitat restoration for bobwhite quail and grassland birds.
- *Questions are: (1) Does the STC support this, and*

*(2) if so, should a funding pool within EQIP be set up to earmark these dollars, or is there a better, more flexible way to do it? Recognize that 5% of SC's annual EQIP allocation will not be enough to get the job done on the ground that is needed, but there are also other programs that can possibly be brought to bear (CRP, CSP, RCPP, longleaf programs, etc.).*

*❖ Input: to finish out this year like we are & reaccess next*

- *Note: See the attached news release on the formation of the SC Quail Council; Comments/suggestions may be sent to [carmichaelb@dnr.sc.gov](mailto:carmichaelb@dnr.sc.gov).*

## **DNR News:**

---

### **December 17, 2014 South Carolina Quail Council advocates for habitat restoration**

The first meeting of the South Carolina Quail Council was held on Dec. 10 at the Phillips Market Center at the State Farmers Market. The Quail Council is a coalition of state, federal and private interests formed to provide leadership and advocacy for the restoration of habitat for bobwhite quail and other grassland birds. Quail and their habitat cohorts, such as grasshopper sparrows, loggerhead shrikes, Bachman's sparrows, prairie warblers, painted buntings and others, have been experiencing long-term and widespread population declines due to habitat loss over a large geographic



scale.

The S.C. Department of Natural Resources (DNR) has developed a plan for statewide restoration of habitat to benefit these species: "Northern Bobwhite Habitat Restoration in South Carolina: Challenges and opportunities in the 21st Century." This plan feeds into the

National Bobwhite Conservation Initiative, a range-wide plan for recovering bobwhites to target densities set by state wildlife agencies, and includes all 25 states comprising the historic range of the bobwhite.

The formation of the South Carolina Quail Council is a key step in moving the plan forward, which is expected to increase technical assistance capacity to improve habitat in agricultural and forested landscapes, increase public awareness and appreciation of quail and grassland bird species and their habitat, and improve coordination of monitoring and research efforts for these species. An additional benefit of the effort will be increased habitat to support pollinator species such as bees and butterflies that are also known to be in decline. The inaugural meeting of the Quail Council was attended by forty-six individuals representing seven state agencies, five federal agencies, thirteen non-governmental conservation organizations and five private landowners.

"The bobwhite quail is an iconic symbol of South Carolina rural culture and traditions," said Alvin Taylor, DNR Director. "Most younger people have never had the chance to experience what I did growing up in Marion County- the exhilaration of following a couple of bird dogs and experiencing the exciting flush of a wild covey of quail. If we wait any longer to address the bobwhite decline, the current low population levels may become the norm for many people because they don't know it was any different. If we do that shame on us," Taylor said.

**Closing Comments from Ruth Book, Acting State Conservationist:**

- Thanked Gene Kodama for use of the SC Forestry Commission facility and also thanked all for taking time out of your schedules to be here.
- Lots of information covered – feel free to contact NRCS with any questions you may have via phone or email.
- Thanked all partners, speakers and everyone for attending.
- Have great week!

The meeting was adjourned at 11:32 a.m.

The next SC State Technical Committee meeting date, time and location to be determined.