

State Technical Committee Meeting
October 11, 2016, at 10:00 a.m.
Southern Piedmont Agricultural Research and Extension Center
2375 Darvills Road, Blackstone, VA 23824

A G E N D A

10:00 – 10:10	Welcome and Opening Remarks	NRCS – Jack Bricker
10:10 – 10:20	Conservation Innovation Grants – overview and history	NRCS – Blaine Delaney
10:20 – 11:00	CIG – Cropland	NRCS – Chris Lawrence
11:00 – 11:30	CIG – Pastureland	NRCS – JB Daniel
11:30 – 12:00	CIG – Silvopasture	Chris Teutsch JB Daniel
12:00 – 12:45	LUNCH & TRAVEL to Silvopasture Site	
12:45 – 2:00	Silvopasture Tour & Return	Chris Teutsch JB Daniel
2:00 – 3:00	Farm Bill Programs and Partner Updates	All

Next Meeting – TBA

State Technical Committee Meeting

October 11, 2016, at 10:00 a.m.

Southern Piedmont Agricultural Research and Extension Center (SPAREC)

2375 Darvills Road

Blackstone, Virginia 23824

Those in attendance were:

Jack Bricker, State Conservationist, NRCS

Todd Groh, Liaison, DOF

Gary Moore, Ag Incentives Program Manager, DCR

Mark Schonbeck, Virginia Association for Biological Farming

Chris Teutsch, Forage Research & Extension Specialist, SPAREC

Julie Hawkins, ASTC-Programs, NRCS

Chad Wentz, State Resource Conservationist, NRCS

Patrick Vincent, Farm Bill Specialist, NRCS

Blaine Delaney, Conservation Innovation Grants Program Manager, NRCS

Chris Lawrence, Cropland Agronomist, NRCS

J.B. Daniel, Forage and Grassland Agronomist, NRCS

Kathleen Anderson, Administrative Assistant, NRCS (Recorder)

Jack Bricker, NRCS State Conservationist, welcomed everyone to the meeting, giving some highlights of what is going on in the agency. The **Highly Erodible Land (HEL) determinations** have needed about 20,000 re-dos, but 1,000 are done. LiDAR technology is a huge help with this, with only about 15 minutes needed each, rather than several hours each. This generates the HEL letter and the 026 form for the client. This is from the sod buster-swamp buster section of the 1984 Farm Bill. Farm Service Agency (FSA) administers it, but NRCS completes the technical determinations. There are more wetland violations being found from a 5% spot check. Commodity prices went up and so people started plowing up more land. There is a lot of work involved in pursuing this to correct the documents.

There will be a **Continuing Resolution (CR)** until December 9. If Congress cannot come to agreement on a budget, then the CR will be extended to January 18, 2017. This looks like a flat budget year, and hopefully there will be no problem with managing the budget. There may not be many changes for the election year. It looks like we will have a good budget. We are the largest state for the EQIP StrikeForce budget.

There is a **new Farm Bill** on the horizon, to come out in the spring of 2018. However, it is possible to extend the current Farm Bill a little into the future, if need be.

The **obligation of funds** needs to be done quicker. Area 3 Assistant State Conservationist for Field Operations, Kilby Majette, has suggestions on how to speed up the process. We would like to get things done a little earlier, perhaps by September 1, to obligate the funds. We did well this fiscal year with this, but we would like to achieve this more quickly in the future.

Many people want to get involved with **urban agriculture**. Agriculture is being zoned within city limits for garden and farm endeavors. High tunnels are a wonderful project for urban agriculture. Tricycle Gardens, Virginia State University, and Virginia Cooperative Extension are working to put together a

curriculum, so that a certificate of learning can be earned in this subject. There are other events, such as Farm-to-Table and Small Farm Field Day, featuring the production of agricultural products in a city environment. Hundreds of people are participating in these, showcasing the production of livestock, fruits, and vegetables. NRCS is a wonderful resource for this, especially for the practice of high tunnels!!

Julie Hawkins, NRCS Assistant State Conservationist for Programs, began the meeting's focus on **Conservation and Innovation Grants (CIG)**, by introducing Blaine Delaney, the program's manager.

Blaine Delaney, Conservation Innovation Grants Program Manager, NRCS, gave a history and an overview of the **Conservation and Innovation Grants (CIG)** program. *(See the handout entitled "Virginia Conservation Innovation Grants History.")* CIG started 11 or 12 years ago at the national level, in the mid-2000s, and has been in Virginia since 2010. There were two projects that first year. Some states do not offer state programs. CIG has been a key tool for Virginia's Soil Health Initiative. There are some Best Management Practices that have not been widely adopted yet, and CIG is inspiring partners to come forward to accelerate the adoption. **Silvopasture** is one of these projects. The year 2015 was the first time since 2010 that we did not offer CIG. Maybe we will not have CIG for 2017, unless we get a windfall in the budget. Every state was cut funding in 2015. States are allowed to use up to 5% of their EQIP allocation for CIG grants. This year, 2016, was better. Next, Blaine referred to the 24 CIG projects that have been worked on in the state since the program's inception in 2010. *(See the handout entitled "Summary of Current VA NRCS Conservation Innovation Grants Projects." The color of the ink on this handout designates the focus of the project: green ink for grazing management and red ink for cropland.)* The speakers this morning will give more details on these innovative projects. The speakers are J.B. Daniel, NRCS forage and grassland agronomist, and Chris Lawrence, NRCS cropland agronomist.

Chris Lawrence, Cropland Agronomist, NRCS, elaborated on the Conservation Innovation Grant Program in conjunction with his specialty, **cropland**. The CIG program is a useful way to get out our message of conservation, with a variety of people, agencies, and productions. It is especially good for us to work with Virginia Tech, as it has been found that "extension agents appear to be the most trusted public source of information on conservation." Farmers trust the land grant system. CIG is shifting key partners, especially Virginia Tech and VCE, towards NRCS priorities—soil health! They are spreading our message in their own words, with their materials. That is OK! *(See the handout entitled "Overview of Virginia NRCS Cropland State CIG Projects.")*

J.B. Daniel, Forage and Grassland Agronomist, NRCS, discussed **pasture health**. He has been with NRCS for eight years, and had previously worked with extension. He has a "team style" that goes well with NRCS. There are a variety of partnerships and technical specialties, engaging multiple geographic locations, giving broad diverse outreach opportunities and educational platforms that provide learning for farmers, conservationists and the industry. We don't have the resources to do all of this ourselves—we can all learn together. *(See the handout entitled "CIG Projects on Pastureland.")*

Chris Teutsch, Forage Research & Extension Specialist, Virginia Tech's Southern Piedmont AREC, spoke on **silvopasture** in Southside. (Also instrumental in this research, but not present at today's meeting, is John Fike, Extension Specialist in the Department of Crop and Soil Environmental Sciences at Virginia Tech.) What is silvopasture? It is not a new concept. We have gotten away from it with monoculture. It is not merely turning animals into woods. It is an intensive, integrated management system, combining trees and forages and livestock. There is about a thirty year time frame to bring this about. But, there is a short term payday in this system—the cattle greatly benefit. There is increased cool season forage

growth. More production is in the sum, rather than just of the parts. There are benefits to livestock production in silvopasture/shade, such as heavier animals, with weight gain (but some studies do not show this). It is more than just comparing natural with artificial shade. More things need to be considered than just shade and temperature; humidity needs to be considered, too. And, consider not just solar heat, but metabolic heat, as well. In tall fescue toxicosis, an animal cannot regulate its body temperature. Shade is most likely to impact performance under sustained extreme heat stress. This is an animal welfare issue. Example—a black cow that has no shade, and is in the sun, results in great heat stress!! Fences don't solve fescue toxicosis. It is good to fence out the cattle from a natural source of water (ex.—pond or stream), but that makes it hard for the cattle to keep cool. Often, there is shade at the water, as trees often can be found growing there. Fencing cattle out of the water is a good conservation practice, but the concern that the cattle will have heat stress from it can be alleviated by putting them in silvopasture! This is a good component in the grazing system (summer), though it may not be the whole grazing system. Remember to have a water trough for the cattle, so that they can drink, and also remember to monitor it.

Some objectives for the researchers are: to demonstrate the establishment of both pine and hardwood silvopastures, to demonstrate the use of managed grazing in silvopasture, and to provide educational opportunities for livestock producers and for the agricultural, forestry and conservation professionals, resulting in a multi-disciplinary team.

The researchers have been working with 40 acres of hardwood and pine (including oak and loblolly pine). They looked at whole ecosystem—insects, soil chemistry, macro invertebrates, leaf litter, and earthworms in a cubic foot of soil, to get a snapshot of ecosystem. The initial results show that there is a total microbial biomass at 10 cm. There are 15 species of parasites. The soil chemistry in the test area has a pH of 4.88, phosphorous is 2 ppm (low—need more), and potassium is medium. Silvopasture is not a free lunch! There is a need to amend the soil.

The researchers worked with a commercial forester to thin the existing stand, removing 50% of the base area. The trees needed to be thinned, but it had to be determined how many to leave in place. The trees that were to be saved were marked with a stripe of blue paint. It was even specified in the contract that the logger was to leave the trees with the blue paint! Happily, there was very limited damage. Additional trees were planted on a 10 x 10 grid. Then, the seedbed was disked twice for the grass. Next, a commercial-sized mulcher broke the stumps down. Then, lime and fertilizer were spread, and disked. Afterward, the crop was planted: tall fescue, orchard grass, alfalfa, red clover, ladino clover, perennial rye grass, and meadow fescue.

Silvopasture is a team effort, involving foresters, ruminant specialists, and agronomists!!

Farm Service Agency report was presented by Chad Wentz, State Resource Conservationist, for Emily Horsley. (See the handout entitled "FSA CRP Updates.")

Patrick Vincent, Farm Bill Program Specialist, NRCS, reported on the EQIP and RCPP budgets. There are 499 contracts obligated, and 60% of our funding has to go to livestock. The application deadline for EQIP is in February, then the ranking deadline is March 17. (See the handouts entitled "EQIP Budget Allocation Sheet 9.30.16" and RCPP Budget Allocation 9.30.16.")

RCPP-NFWF dairy and livestock had 8 contracts, and remaining funds were carried over. RCPP-DOF numbers for two years are 172 contracts. Conservation Stewardship Program for FY16 general sign-up (not FY17) was 31 contracts. It is an acre-driven program, not a dollar-driven program. We traveled to St. Louis to get training on the Conservation Stewardship Program re-invention. It will be modeled more like EQIP, and field staff will get training. We are happy about what is ahead for this. There will be more transparency. Before this, no one knew what the payments would be like for participants.

Gary Moore, Ag Incentives Program Manager, Department of Conservation and Recreation—The dollar amount for CREP sign-up has been good. For VACS-BMP, we originally had 136 million dollars backlog since January 2012, and the amount is now down to 30 million dollars. DCR has hired Emily Nelson, an engineer from Thomas Jefferson Soil and Water Conservation District.

Blaine Delaney, NRCS—There are three proposals that are being considered for RCPP here in Virginia. Two are in the state funding pool from Franklin County, one for water/dairy issues, and the other for oyster habitat restoration. The other one is in the Critical Conservation Area (CCA) in the Chesapeake Bay Watershed. We provide input but we do not make the selection for the CCA awards, as this would be a national decision.

ACEP Easements, NRCS—There was one ALE application funded last year from Northumberland County, and one WRE application funded from Washington County. We closed the first WRE in the state, from Greensville County in August. We don't have the sign-up dates for FY-17 yet, but they should be forthcoming in the future months.

Todd Groh, Liaison, Department of Forestry—For the 2017 state fiscal year budget, the Department of Forestry has incurred a 5% decrease. There has been some traditional turnover in positions, so we are hiring for those few positions, but not for *new* positions.

The Reforestation of Timberlands (RT) Program was fully matched by the General Assembly in FY 2017, and the majority of the incentive funding has already been obligated. The Department also received funding this year to replace old fire equipment. We have had to stretch our equipment replacement rotation from 20 to 30 years, so this will help us to replace the oldest equipment.

The Department has also received a grant to hire three riparian buffer specialists. One of the specialists is Sara Long who is working out of Augusta County.

The Department is in the process of developing a statewide hardwood forest management strategy. A pine management strategy has already been in place for a couple of years.

The Department of Forestry is working toward producing longleaf pine containerized seedlings ourselves, rather than getting it from someone else. Harvey Darden, the Department's Director of Agency Lands, has developed a plan so we can grow the seedlings in Virginia. We need to get the right equipment, but it will not happen very quickly due to budget limitations.

Last fiscal year, the Department purchased a scalper and sub-soiler to use for open field planting projects! The scalper can remove the sod in a four foot swath for easier planting! We rent it out to the landowner at a daily charge, and can be pulled by a 35 hp tractor.

There is a good crop of hardwood seedlings in our Augusta state nursery this year. I will be conducting a survey next week to determine the size and quality of the seedlings and provide a report for the DOF foresters so they can make recommendations for various USDA programs. Seedling whips, seedlings between 3-4 feet are also available this coming year.

Chris Teusch—The American Forest & Grassland Council will be holding its annual seminar on January 22-25, 2017, at the Hotel Roanoke & Conference Center. It is called "**Turning Grass into Cash—Opportunities in Grassland Agriculture.**" This event is open to industry, academia, and producers. *(See the handout entitled "Turning Grass into Cash.")*

Jack Bricker—Chris Teusch will be moving to Kentucky at the first of January, to work at the University of Kentucky. Thank you, Chris, for all you have done out here.

Reminder—There will be **JED training** in November and **Farm Bill Program JED training** in January.

Next State Technical Committee meeting: to be announced

Virginia Conservation Innovation Grants (CIG) History

YEAR	# of CIG Awards	CIG Funds Awarded
FY 2016	3	\$200,573
FY 2015	0	\$0.00
FY 2014	3	\$224,923
FY 2013	7	\$406,641
FY 2012	3	\$164,415
FY 2011	6	\$248,704
FY 2010	2	\$143,054
	24 projects	\$1,388,310

- The purpose of CIG is to **stimulate the development and adoption of innovative conservation approaches and technologies**, while leveraging the Federal investment in environmental enhancement and protection in conjunction with agricultural production.
- CIG projects are expected to lead to the transfer of conservation technologies, management systems, and innovative approaches into NRCS policy, technical manuals, guides, and references, or to the private sector.
- CIG is used to apply or demonstrate previously proven technology. It is a vehicle to stimulate development and adoption of conservation approaches or technologies that have been studied sufficiently to indicate a high likelihood of success, and that are candidates for eventual technology transfer or institutionalization.
- **CIG funds projects that target innovative on-the-ground conservation, including pilot projects and field demonstrations.**
- Each state may use up to **5%** of their EQIP allocation for the state CIG Program each year. We have generally stayed below the 2% level in Virginia. With the unexpected, large decrease in Virginia's EQIP funding in FY2015, we did not offer a 2015 CIG Program.

NATIONAL FY2016 CIG Program

- NRCS no longer uses a two-phase process of pre-proposals and full proposals from applicants; we now just ask for one proposal.
 - The FY2016 proposals were due on May 10, 2016
- \$20 million available
 - Maximum award is now **\$2 million** (it used to be \$1 million)
- **Two key changes to CIG Program in 2014 Farm Bill**
 - **On-farm conservation research is now allowed**
 - **No "cash match" requirement, matching funds can be up to 100% in-kind. Applicant still needs to provide at least 50% of total project costs.**

Summary of Current VA NRCS Conservation Innovation Grants (CIG) Projects

Project Title	Start	Duration	Recipient Organization(s)	Project Leader	Geographic Region Targeted	NRCS Financial Contribution
Demonstrating Conversion of Wildtype to Novel Endophyte Fescue Pastures for Greater Livestock Performance and Better Environmental Outcomes	Fall 2016	3 years	Virginia Tech	John Fike	Statewide	\$74,898
Establishing Native Warm-Season Grass Stands under Grazing		3 years	Virginia Tech	Ben Tracy	Statewide	\$50,855
High Residue Cover Crops for Weed Suppression and Impact on Cash Crop Performance (SOIL HEALTH)		3 years	Virginia Tech	Michael Flessner	Southeastern Virginia	\$74,820
Advancing Agroforestry Riparian Buffer Implementation for Soil Health in Virginia	Fall 2014	2 years	Appalachian Sustainable Development	Emily Lachniet	Southwest Virginia	\$74,923
Cover Crops as a Conservation Approach: What Dairy Farmers Need for its Adoption (SOIL HEALTH)		2 years	Virginia Tech	Gonzalo Ferreira	Shenandoah Valley & other dairy regions	\$75,000
Improving soil health and crop productivity by utilizing diverse and high-residue cover crops in Virginia (SOIL HEALTH)		3 years	Virginia Tech	Mark Reiter	Eastern Shore & Tidewater	\$75,000
Soil Health and Wallet Wealth in Intensive Dairy Systems (SOIL HEALTH)	Fall 2013	2 years	American Farmland Trust	Jim Baird	Shenandoah Valley & Northern Piedmont	\$75,000
Strip Tilling Vegetables to Boost Soil Organic Matter, Farmland Conservation and Grower Productivity (SOIL HEALTH) COMPLETED!		2 years	Appalachian Sustainable Development	Chick Fish	Southwest Virginia	\$32,913
Farming on the Edge: Evaluation of the edge effect in grain cropping systems COMPLETED!		1 year	Colonial SWCD	Brian Noyes	Tidewater	\$12,350
Improved Soil Health through Livestock and Pasture Diversity: a Farm Demonstration (SOIL HEALTH)	3 years		Piedmont Environmental Council of Virginia	Mike Kane	Northern Piedmont	\$62,276

Project Title	Start	Duration	Recipient Organization(s)	Project Leader	Geographic Region Targeted	NRCS Financial Contribution
Soil Health and Grazing Management: Putting Science into Practice (SOIL HEALTH)	Fall 2013	3 years	Virginia Forage and Grassland Council	Patricia Johnson	Statewide (Western VA emphasis)	\$75,000
Healthy Farms from the Soil Up: Finding Common Ground (SOIL HEALTH)	Fall 2012	3 years	Virginia Tech	Eric Bendfeldt	Shenandoah Valley & Northern Piedmont	\$74,102
Establishing and Managing Pine and Hardwood Silvopastures in the Mid-Atlantic Region of the United States		3 years	Virginia Tech	Chris Teutsch	Statewide	\$75,000
Feasibility of Multi-species Cover Crops in Central Virginia Cropping Systems to Affect Soil Quality (SOIL HEALTH) COMPLETED!		3 years	Hanover-Caroline SWCD	Jim Tate	Northeast VA	\$49,900
Managed Grazing for Improved Soil Health and Environmental Protection (SOIL HEALTH) COMPLETED!	Summer 2011	3 years	Virginia Tech	Ben Tracy	West of Blue Ridge	\$75,000
Innovative Cropping Systems Using Diverse Cover Crops & Manure Injection (SOIL HEALTH)		3 years	Virginia No-Till Alliance	Doug Horn	Shenandoah Valley	\$39,515
Strategically Reducing Phosphorus Excretions in Grazing Beef Cattle COMPLETED!		2 years	Virginia Tech	Mark McCann	Statewide	\$30,000
Enhanced Nutrient Management in Virginia: Precision Soil Phosphorous, Potassium, and pH Management COMPLETED!		3 years	Virginia Tech	Mark Reiter	Eastern Shore & Tidewater	\$75,000
Comprehensive Conservation Outreach Training for Limited Resource and Beginning Farmers in Central Virginia COMPLETED!		2 years	Local Food Hub, Inc.	Adrianna Vargo	Central Virginia	\$75,000
Beneficial Reuse of Large Animal Mortality COMPLETED!		2 years	Virginia Tech	Bobby Clark	Shenandoah Valley	\$2,900

Project Title	Start	Duration	Recipient Organization(s)	Project Leader	Geographic Region Targeted	NRCS Financial Contribution
GPS Zone-Based Variable Rate Nitrogen Fertilizer CIG Project COMPLETED!	Summer 2011	3 years	Colonial SWCD	Brian Noyes	Tidewater	\$15,804
Greenseeker Sensor-Based Variable Rate Nitrogen Fertilizer CIG Project COMPLETED!		3 years	Colonial SWCD	Brian Noyes	Tidewater	\$50,000
Alternative Winter Cover Crop Species and Seeding Techniques for Virginia (SOIL HEALTH) COMPLETED!	Fall 2010	2 years	Virginia Tech	Wade Thomason	Statewide	\$69,769
Cost Share for Slug Management in Corn and Soybeans COMPLETED!		3 years	Virginia Tech	Bobby Clark	Shenandoah Valley	\$73,285

*October 2016 VA NRCS State Technical
Committee State CIG Showcase*

Overview of Virginia NRCs Cropland State CLG Projects

*Chris Lawrence, State Cropland
Agronomist, NRCS, Virginia*

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VA NRCS Soil Health Management Principles

- Keep Soil Covered
- **Minimize Disturbance**
 - Tillage
 - Compaction
 - Chemicals
- Maximize Living Roots
 - Amount present
 - Amount of time present
- **Energize with Diversity**
 - Of crops, of animals, of enterprises



VA NRCS CIG Program: Key Concepts

- CIG = Conservation Innovation Grant
- What is “innovative”?
- Demonstration vs. research
- 1:1 match requirement:
 - Partner contribution equals or exceeds award
- Innovative outreach and outreach tools can be deliverables

VA Cropland CIG Projects: Key Stats

- Number of projects: 14
- Fiscal Year of awards: 2010 to 2014, 2016
- Project duration range: 1 to 3 years
- Project award range: \$12,350 to \$75,000
- Average per project: \$56,600
- Sum of 14 awards: \$792,500
- What's the "EQIP equivalent"?
 - \$792,500 = 15,850 acres of EQIP cover crop (\$50/ac)
 - \$792,500 = 27 "maxed out" cover crop contracts

14 VA Cropland CIGs: Topics

- Seven (7) = cover crop & associated issues:
 - Species, establishment methods, impact on soil properties, impact on weeds, etc.
- Four (4) = enhanced nutrient management
 - Variable rate fertilization, yield mapping, etc.
- Three (3) = reduced tillage & associated issues:
 - No-till/strip-till veggies, slug control in no-till, etc.

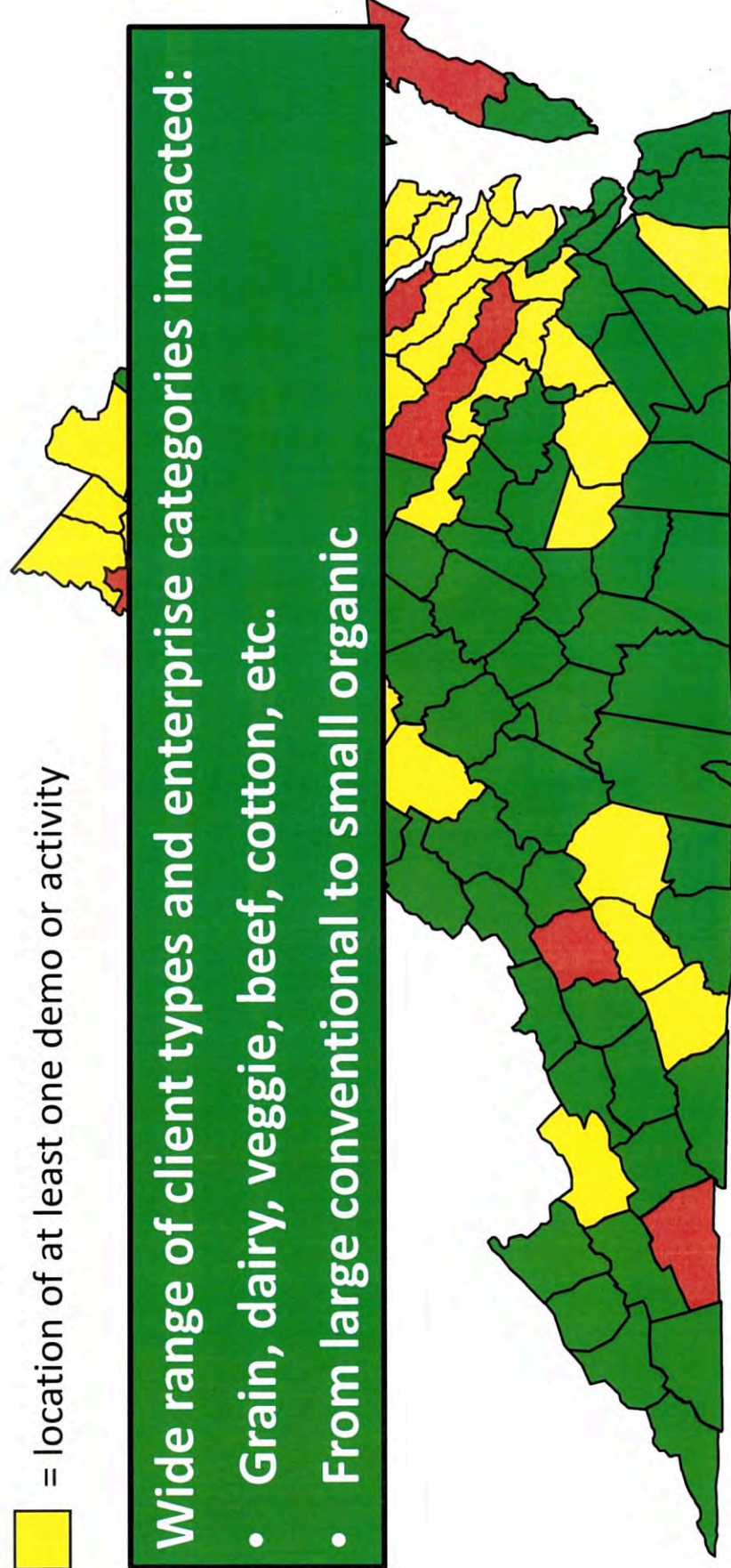
All projects involved on-farm or on-station field testing or demonstration of one or more of these practices

14 VA Cropland CIG Projects:

Geographic Impact (approx.)

 = project leader locations

 = location of at least one demo or activity



14 VA Cropland CIG Projects: Recipients

- Seven (7) = **VA Tech/VCE**
- Four (4) = NGO or SWCD...
... **with VA Tech/VCE playing a major role!**
- Three (3) = SWCD

VA DCR Cost-Share Program, Summary Report of Qualitative Research,
July 2006 (prepared by McFadden Clay Marketing Group):

*“Extension agents appear to be the most trusted
public source of information on conservation”*

Benefits: Changes in Our Partners

- CLG is shifting key partners (esp. VA Tech / VCE) towards NRCS priorities
 - Our priority project topics
 - Our priority project details
 - Outcome: they start spreading our message in their own words...
- CLG is building stronger NRCS-partner (esp. VA Tech / VCE)...
 - Relationships
 - Trust
 - Communication networks

... that extend beyond the CLG projects!

Shifting partners towards NRCs priorities

Table 1. Listing of cover crop species planted in Western VA, Fall, 2010, dry matter yield and N uptake measured in winter (Dec/Jan) and spring (March).

SPECIES/MIXTURE	WINTER			SPRING		
	DM	N	UPTAKE	DM BIOMASS	N	UPTAKE
	-----LB/AC-----			-----LB/AC-----		
Early Cover Hairy Vetch	830		27	1550		56
Austrian Winter Peas	964		35	1105		72
Common Vetch	1091		38	832		32
Persian Clover	585		20	142		2
Indian Head Lentils	666		25	215		8
Yellow Sweet Blossom Clover	145		2	178		4
Arrowhead Clover	216		5	282		8
Subterranean Clover	54		1	124		4
Crimson Clover	1039		30	1934		60
Sweet Lupins	585		20	420		13
Tillage Radish	2671		96	120		5
Phacelia	2662		104	158		4
Rye	2831		87	4485		134
Barley	3650		153	2622		86
Spring oats	2241		79	567		13
Ryegrass	1495		48	1698		43
Woolly pod vetch (Lane)	1321		50	2010		68
Barley+Crimson+Tillage radish	3027		116	3054		91
Rye+Vetch+Pea+Tillage radish	2890		92	3797		97
Rye+Ryegrass+Tillage radish	2650		97	3938		106
Spring oats+Canola	2560		91	2651		81
Spring oats+Tillage radish	2792		102	1085		21
Barley+Crimson+Woolly Pod Vetch+Peas+Tillage radish+Canola	2482		92	2874		77
Ryegrass+Crimson+Woolly Pod Vetch+Peas +Tillage radish+Canola	2335		87	2574		81
Tillage radish	2147		77	282		11

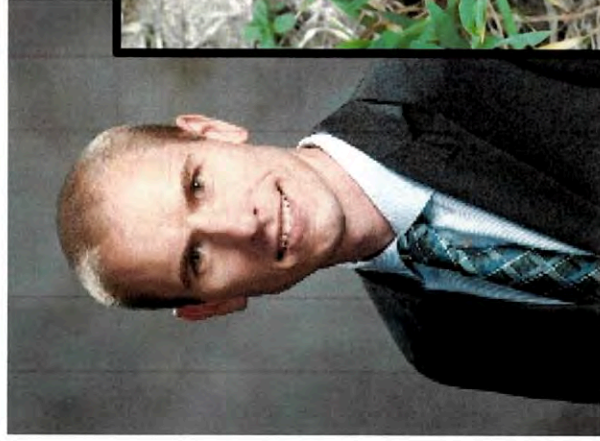


A portrait of a man with short, dark hair, wearing a dark suit jacket, a white shirt, and a patterned tie. He is looking directly at the camera with a slight smile. The background is a textured, mottled blue-grey.[illegible]

Shifting partners towards NRCs priorities

[illegible]

Shifting partners towards NRCs priorities



14 VA Cropland CIGs: some of our VA Tech/VCE partners

- Dr. Wade Thomason, VA Tech CSES, Corn & Small Grain Specialist
- Dr. Mark Reiter, Eastern Shore AREC, Fertility Specialist
- Allen Straw, SW VA AREC, Horticulture Specialist
- Dr. Gonzalo Ferreira, VA Tech DASC, Dairy Management Specialist
- Dr. Steve Rideout, Eastern Shore AREC, Plant Pathologist
- Dr. Michael Flessner, VA Tech PPWS, Weed Science Specialist
- Dr. Hunter Frame, Tidewater AREC, Cotton Specialist
- Dr. Charlie Cahoon, Eastern Shore AREC, Weed Science Specialist
- Dr. Brian Badgley, VA Tech CSES, Environmental Microbiologist
- Dr. Mike Strickland, VA Tech BIOL, Soil/Environmental Microbiologist
- Eric Bendfeldt, VCE NW District, Community Viability Specialist
- Bobby Clark, Crop & Soil Agent, Shenandoah
- Keith Balderson, Crop & Soil Agent, Essex
- Matt Yancey, (former) Crop & Soil Agent, Rockingham
- Doug Horn, Crop & Soil Agent, Rockingham
- Tim Mize, Animal Science Agent, Fauquier
- Tim Ohlwiler, Horticulture Agent, Fauquier
- Kenner Love, Horticulture Agent, Rappahannock
- Beth Sastre, Horticulture Agent, Loudoun

Don't forget the non-VA
Tech / VCE partners!

Benefits: Changes in Our Knowledge

- CIG helps to enhance / validate / challenge our understanding of technical and practical aspects of old and new conservation practices
- Examples:
 - Slug control in NT
 - [Greenseeker Variable Rate N](#)
 - Etc.

Benefits: Changes in Our Clients

- CIG allows our clients to:
 - Try innovative practices with less financial & contractual risk
 - Learn how they learn best...
 - By doing
 - On their own farms
 - At their own pace
 - Adapting as needed

Lessons Learned: Quality Outcomes

Require Investment

- NRCs must invest time as well as money
 - Some projects “run themselves”
 - Most projects run best with close engagement by NRCs state and local contacts
 - Outcome synthesis / documentation – NRCs task
- Partners must invest a lot too...
 - Project must overlap with their priorities
 - Good technical capacity is not enough
 - Not all partners well suited for admin challenges
- Implications of the above....

Broccoli Trial: Floyd County



Lessons Learned: Best Lessons Often Unexpected... But Logical!

- Projects “evolve”; most beneficial outcomes sometimes different than originally expected
 - Not unusual for partners to underestimate technical difficulty in carrying out proposals
 - Often learn as much about how to plan / run projects as we do from technical results
- Most projects end up confirming in some way the importance of site-specific application of well-known conservation / agronomic fundamentals....

Examples of “fundamental” lessons...

- No miracle cover crops that grow fast mid-winter
- Early fall planting is key to cover crop benefits
- Covers don't grow without plant nutrients either
- Diverse cover crop mixes don't magically improve the soil and next crop yields in one or two seasons
- No one cover crop species or mix does it all – must be planned and tailored to grower's need
- Presence vs. absence of crop roots over a single winter consistently produces a measurable change in soil biological activity
- No-till specialty crops requires a systems approach
- Etc., etc., etc.

VA State CIG Cropland Project

Conclusions



**THANK
YOU!**



“...generally, the type of soil management that gives the greatest immediate return leads to a deterioration of soil productivity, whereas the type that provides the highest income over the period of a generation leads to the maintenance or improvement of productivity.”

- Charles Kellogg, 1936



CIG Projects on Pastureland

JB Daniel
USDA-NRCS
Grassland Agronomist

Strategically Reducing Phosphorus Excretions in Grazing Beef Cattle

- ▶ Conducted controlled feeding demonstrations where cattle P intake was quantified and extrapolated to on-farm conditions
- ▶ Highlighted the potential impact of high P mineral supplements in grazing beef cattle systems leading to excess P excretions and how it may impact water quality in the Chesapeake Bay
- ▶ Demonstration results were quantified and presented to producer groups to educate them to use high P mineral mixes only at certain time of the year
- ▶ Concluded that overfeeding P to beef cattle leads to greater fecal P excretion
- ▶ By selecting the correct mineral fecal P excretion can be minimized for an environmental and economic benefit

Outreach and Dissemination

- ▶ Demo results were shared at 3 regional summer producer field days and 1 county meeting reaching 500 cattlemen in person
- ▶ Summary article published in VA Cattlemen's Magazine
- ▶ Extension Publication produced providing producer recommendations
- ▶ Trained staff at regional JED trainings and at the CIG Showcase
- ▶ Custom mineral formulations are changing because of this project.



Managed Grazing for Improved Soil Health and Environmental Protection

- ▶ Demo compared continuous grazing to different stocking densities and rest periods and attempted to quantify changes in pasture species composition and soil health.



Outreach and Dissemination

- ▶ The controlled demonstration sites showed that in a short term project (3 years) it is very hard to measure true changes in soil properties.
- ▶ Changes in soil N suggest that high density stocking may lead to more even distribution of manure, which could benefit plant growth
- ▶ Compared to rotational stocking, mob stocking offered few benefits
- ▶ Demo sites provided a platform for numerous pasture walks, tours and JED trainings



Improved Soil Health through Livestock and Pasture Diversity

- ▶ Demonstrate innovative multi-species mob grazing practices to restore healthy pasture soils on historically overgrazed pastures
 - ▶ Install fencing and water system
 - ▶ Create 10 permanent pastures
 - ▶ Manage diverse forage communities
 - ▶ Mixed species grazing of hair sheep and stockers
 - ▶ Use poly wire temporary divisions for short grazing periods and long recovery periods



Results and Outreach

- ▶ Organic matter levels increased in all 4 management transects, indicating management had a positive impact on soil health.
- ▶ Carrying capacity nearly tripled while reliance on imported hay declined.
- ▶ Infrastructure costs were recaptured within 3 years of implementation.
- ▶ Developed local grazing group who was involved and supportive of demo
- ▶ Six field days were hosted at the farm on different aspects of the project.
- ▶ Excellent fact sheet and case study summary.



Soil Health and Grazing Management:

Norman Bower, Warrenton, VA



- ▶ Using conservation practices and programs to improve pasture condition, forage quality, natural resource benefit and farm productivity
- ▶ Loves grazing cattle and improving the farms he rents
- ▶ Anxious to learn and willing to share his experiences with other farmers.



Soil Health and Grazing Management:

Tim Tobin, Woodford, VA

- ▶ Striving to build soil health while producing quality grass fed and finished beef and poultry products
- ▶ Calf to finish production system
- ▶ Protect water quality, decrease soil erosion, producing annuals and improved perennials for superior production and performance.
- ▶ A life long learner.
- ▶ Willing to share his farm with others in outreach events.



Soil Health and Grazing Management:

John Fant, Independence, VA

- ▶ Getting infrastructure installed to exclude streams and document water quality benefits
- ▶ Develop a grazing system to improve pasture management and increase grazing efficiency
- ▶ Learning, growing and sharing with others.
- ▶ Grazing demo technician this year.
- ▶ One field day this past summer.



Ronnie Nuckols, Goochland County

- ▲ Improved grazing management
- ▲ Fall stockpiling and winter strip grazing
- ▲ Using mixed annual forage crops for increased diversity, ground cover, production and quality
- ▲ Building soil health and farm productivity
- ▲ Farming grass and managing the grazing livestock
- ▲ Wants to protect natural resources and keep the land productive!

▲ <https://www.youtube.com/watch?v=m3WqB4XieOE>



Establishing and Managing Pine and hardwood Silvo-pastures in the Mid-Atlantic Region



Benefit of Using Conservation Innovation Grants in VA

- ▶ Partnerships
- ▶ Technical Specialties
- ▶ Engage multiple geographical locations
- ▶ Broad diverse outreach opportunities
- ▶ Educational platforms that provide real life substance and learning for farmers, conservationists and the industry together.
- ▶ Leveraging dollars on specific projects to connect farmers with conservationists, educators, industry groups and each other.
- ▶ <https://www.youtube.com/watch?v=m3WqB4XieOE>

FSA CRP Updates

- Its CRP payment season! CRP annual rental payments are issued in the beginning of the FY each year so FSA is in the process of making 2016 rental payments to all active CRP/CREP contracts. (CRP rent is paid in arrears so the payments being distributed now are based on enrollment in FY2016)
- The 2014 Farm Bill reduced the nationwide CRP enrollment authority from 32 M acres to 24 M acres by 2017. Therefore, by Oct. 1 2017 the national CRP enrollment cannot exceed 24 M acres. At the end of FY16 the enrollment was around 23.9 M acres. Approximately 1.6 M acres expired on September 30, but about 500K acres were accepted during General SU 49. ALL signup types are considered in the statutory enrollment ceiling of 24M.
Q: Why is all this important to VA stakeholders?
A: When/if FSA reaches the national enrollment cap, all CRP signups will be suspended.
- Currently, continuous CRP and CREP Signup 50, which began on Oct. 1.
 - However, at this time, due to the limited acres available for enrollment, COC's are only authorized to approve CRP contracts offered under CREP, either CB or SR.
 - Other continuous CRP offers, such as SAFE, CP33 (quail), CP36 (Longleaf), may be offered on a continuous basis, however, COC's must receive approval from WDC before contracts are approved in FY17. (Producers may opt for a 10/1/2017 [FY2018] contract start.)
- Current CREP Enrollment:
 - Chesapeake Bay CREP:
Enrollment Target – 25,000 acres
Current Enrollment – 12,621 acres (2016 enrollment – 2,203 acres)
 - Southern Rivers CREP:
Enrollment Target – 15,000
Current Enrollment – 11,156 acres (2016 enrollment – 1,384 acres)
 - TOTAL CRP Enrollment – 45,256 acres

EQIP Budget Allocation Sheet 9.30.16

Fund Code	Account Name	Allocated	Contracts	Contract Approval	#Preapproved	Preapproved Amount	Funds Remaining
76F 51	Virginia	\$22,145,472.00	499	\$21,933,616.65	0	\$0.00	\$211,855.35
76F 51 AQ	Aquaculture						
76F 51 BC	Beginning Farmer - Cropland	\$181,765.72	14	\$181,765.72	0	\$0.00	\$0.00
76F 51 BF	Beginning Farmer - Livestock	\$281,145.00	7	\$281,145.00	0	\$0.00	\$0.00
76F 51 CA	CAPS-Conservation Activity Plans	\$565,204.00	3	\$565,204.00	0	\$0.00	\$0.00
76F 51 CC	Cropland - Christiansburg	\$60,000.00	21	\$60,000.00	0	\$0.00	\$0.00
76F 51 CF	Cropland - Farmville	\$20,875.00	1	\$20,875.00	0	\$0.00	\$0.00
76F 51 CH	Cropland - Farmville	\$216,286.00	5	\$216,286.00	0	\$0.00	\$0.00
76F 51 CH	Cropland - Harrisonburg	\$779,389.00	9	\$779,389.00	0	\$0.00	\$0.00
76F 51 CS	Cropland - Smithfield	\$949,389.00	16	\$949,389.00	0	\$0.00	\$0.00
76F 51 EC	FY16 On-Farm Energy CAP	\$77,068.00	31	\$77,068.00	0	\$0.00	\$0.00
76F 51 I 2	FY16 Organic Certified	\$75,554.00	3	\$75,554.00	0	\$0.00	\$0.00
76F 51 3	FY16 Organic Transition	\$70,350.84	9	\$70,350.84	0	\$0.00	\$0.00
76F 51 GW	Golden Winged-Warbler	\$46,014.00	6	\$46,014.00	0	\$0.00	\$0.00
76F 51 HT	High Tunnel Systems	\$99,654.27	20	\$99,654.27	0	\$0.00	\$0.00
76F 51 AC	Livestock - Christiansburg	\$2,616,541.44	25	\$2,616,541.44	0	\$0.00	\$0.00
76F 51 LF	Livestock - Farmville	\$1,926,858.68	18	\$1,926,858.68	0	\$0.00	\$0.00
76F 51 LH	Livestock - Harrisonburg	\$3,395,525.75	44	\$3,395,525.75	0	\$0.00	\$0.00
76F 51 LS	Livestock - Smithfield	\$0.00	0	\$0.00	0	\$0.00	\$0.00
76F 51 LP	Long Leaf Pine Initiative	\$174,347.24	7	\$174,347.24	0	\$0.00	\$0.00
76F 51 FM	NWQI - Fifteen Mile Creek	\$207,624.86	3	\$207,624.86	0	\$0.00	\$0.00
76F 51 MR	NWQI - Smith Creek - Mountain Run	\$41,083.00	1	\$41,083.00	0	\$0.00	\$0.00
76F 51 WB	NWQI - Smith Creek - War Branch	\$358,431.00	6	\$358,431.00	0	\$0.00	\$0.00
76F 51 SC	Socially Disadvantaged - Cropland	\$280,977.00	5	\$280,977.00	0	\$0.00	\$0.00
76F 51 SD	Socially Disadvantaged - Livestock	\$381,330.18	4	\$381,330.18	0	\$0.00	\$0.00
76F 51 FC	StrikeForce - Cropland	\$606,484.00	14	\$606,484.00	0	\$0.00	\$0.00
76F 51 SS	StrikeForce - High Tunnel Systems	\$266,353.67	28	\$266,353.67	0	\$0.00	\$0.00
76F 51 SF	StrikeForce - Livestock	\$1,344,733.46	10	\$1,344,733.46	0	\$0.00	\$0.00
Prior Year	StrikeForce 2 - Livestock	\$1,710,380.11	16	\$1,710,380.11	0	\$0.00	\$0.00
Prior Year	StrikeForce 2 - Cropland	\$631,499.00	11	\$631,499.00	0	\$0.00	\$0.00
Prior Year	StrikeForce 2 - High Tunnel Systems	\$290,656.00	29	\$290,656.00	0	\$0.00	\$0.00
Prior Year	StrikeForce 3	\$988,086.00	6	\$988,086.00	0	\$0.00	\$0.00
Prior Year	Climate Change	\$1,379,370.00	30	\$1,379,370.00	0	\$0.00	\$0.00
Prior Year	EQIP - Bay	\$1,069,232.20	28	\$1,069,232.20	0	\$0.00	\$0.00
76F 51 HM	Wildlife - Habitat Maintenance	\$141,821.92	19	\$141,821.92	0	\$0.00	\$0.00
76F 51 HC	Wildlife - Wildlife Habitat Creation	\$401,525.09	50	\$401,525.09	0	\$0.00	\$0.00
76F 51 17093	FY16 CIG State Component	\$200,573.00	0	\$200,573.00	0	\$0.00	\$0.00
76F 51 17425	FY16 EQIP Reserve	\$97,488.22	0	\$97,488.22	0	\$0.00	\$0.00
	FY16 Funds - Balance Available	\$145,844.66	0	\$0.00	0	\$0.00	\$145,844.66
	FY15 Funds - Balance Available	\$66,010.69	0	\$0.00	0	\$0.00	\$66,010.69
	Total	\$22,145,472.00	499	\$21,933,616.65	0	\$0.00	\$211,855.35

RCPP Budget Allocation 9.30.16						
Fund Code	Account Name	Allocated	Contracts	Contract Approval	Funds Remaining	
77F 51	Virginia	\$3,382,000.00	201	\$2,165,080.19	\$1,216,919.81	
77F 51 01	Accelerating Chesapeake Bay Watershed Implementati	\$1,450,000.00	21	\$575,992.75	\$874,007.25	
77F 51 02	Comprehensive Watershed Conservation in Dairy and	\$992,000.00	8	\$652,802.02	\$339,197.98	
77F 51 04	Forests-Fundamental for Conservation in Virginia	\$940,000.00	172	\$936,285.42	\$3,714.58	
	Total	\$3,382,000.00	201	\$2,165,080.19	\$1,216,919.81	

CSP FY17 General Sign Up Contracts

31 - Contracts

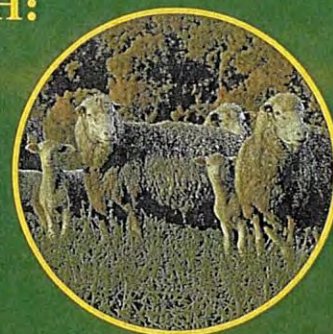
14,131 - Acres

\$279,453 - Obligated

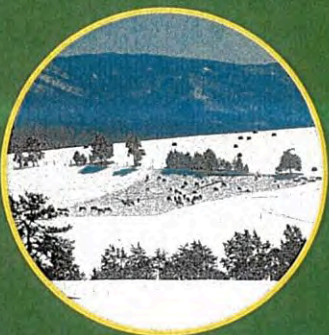
TURNING GRASS INTO CASH:
Opportunities In
Grassland Agriculture



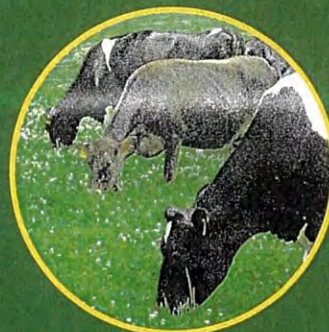
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Hosted by the Virginia Forage & Grassland Council

EDUCATION

Workshops
Poster Presentations
Volunteer Oral Presentations
General Sessions

COMPETITIONS

National Photo
Youth Essay
Forage Spokesperson
Emerging Scientist
National Forage Bowl

NETWORKING

Exhibit Hall
Sponsor Showcase
Receptions
Awards Banquet

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January 22-25

Conference Hotel

The Hotel Roanoke & Conference Center
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Reserve room by December 30, 2016, ask for AFGC block.



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