

## **Agronomic Division — 2014 Annual Report**

**Colleen Hudak-Wise, Ph.D., director, (919) 733-2655**

### **Service**

The Agronomic Division serves North Carolina residents by providing soil testing, plant tissue analysis, waste analysis, solution analysis, soilless media analysis, nematode assay and expert advice regarding plant nutrient management. This year, the division made several changes that have improved the quality and scope of these services. Some notable milestones for 2014 include

- 1) Major interior renovations to our building, including painting and carpet replacement throughout the building and a new slip-resistant floor and acid-resistant cabinet fronts in the Plant/Waste/Solution/Media Lab
- 2) Winning the North Carolina Office of State Human Resources' Safety Video Contest
- 3) A continuing increase in the number of pinewood nematode samples (9,825 in FY2014) from USDA/APHIS/PPQ for phytosanitary clearance prior to export of wood logs
- 4) Replacement of key staff positions, including the Administrative Officer, Data Entry Supervisor and five regional agronomists

As a Public Sector STAR site, the Agronomic Division conducted monthly building inspections; issued a quarterly safety newsletter; presented benchtop trainings on relevant safety topics; and sent representatives to attend NCDOL's annual Carolina STAR safety conference. All in-house employees met regularly and served on one of nine safety teams: Safety Inspection & Compliance, Sign & Chemical Storage, Safety Program & Policy, Safety Information & Communication, Job Safety Analysis, Housekeeping & Landscaping, Wellness, Mentoring & STAR Report, and Ergonomics.

The month of June was proclaimed Workplace Safety and Hazard Awareness Month by Governor Pat McCrory. As a part of this effort, the N.C. Office of State Human Resources (NCOSHR) hosted a video contest among state employees to see who could make the best video about safety and hazard awareness in the workplace. The Agronomic Division's entry, the Misadventures of Reckless Ro, was named the winner of this contest. The winning team was invited to a special recognition ceremony at the North Carolina State Capitol on July 16.

The soil testing and waste analysis laboratories continued to operate under the N.C. Department of Environment and Natural Resources (DENR) Division of Water Quality's laboratory certification program and are qualified to provide critical testing for animal waste permits and nutrient management compliance. The soil testing and plant analysis laboratories

continue to meet the requirements of the North American Proficiency Testing program. The waste analysis laboratory also participated and became certified in the 2014 Manure Analysis Proficiency Program.

## Workload Summaries

The **Soil Testing Section**, under the direction of David H. Hardy, Ph.D., analyzed 329,735 soil samples in FY2014: 309,407 predictive; 15,847 expedited; 2,225 diagnostic; 794 research; 807 from witchweed-infested areas; 447 heavy metals; and 304 internal. Reports issued with fertilizer/lime recommendations totaled 38,361. Turnaround time for soil samples was no higher than 8.5 weeks during the peak season. By Feb. 1, 2014, turnaround time had dropped to two weeks.

The **Plant/Waste/Solution/Media (PWSM) Section**, under the direction of Brenda R. Cleveland, analyzed 9,451 plant tissue samples; 15,523 waste samples; 1,729 solution samples; and 916 soilless media samples in FY2014. Of these, 3,598 were research samples. PWSM issued a total of 11,378 reports.

The **Nematode Assay Section**, under the direction of Weimin Ye, Ph.D., processed 42,383 samples and issued 5,536 reports in fiscal year 2014, including 986 research samples, 125 diagnostic samples, 61 out-of-state samples (not include out-of-state pine wood nematode samples), 9,825 pine wood nematode samples, 58 samples from the NCSU Plant Disease and Insect Clinic and 38 regulatory samples from the NCDA&CS Plant Industry Division. This sample volume was up 21.1% from fiscal year 2013. From April through September, samples were processed in about 5 business days. During the busy season of November through March, turn-around time averaged about 40 days.

In fiscal year 2014, the Nematode Assay Section provided significant laboratory support for export of wood logs to China. As indicated below, pine wood nematode was detected in 160 samples, but these positive detects represented only 1.62% of the total samples analyzed.

### Pine wood nematode assay summary in FY2014

	FY2014
Total pine-wood samples	9825
Total pine-wood reports	703
Positive pine-wood-nematode samples	160
Positive pine-wood-nematode reports	62
Yearly nematode samples	42383
Yearly nematode reports	5536
Pine-wood-sample percentage	23.18%
Pine-wood-report percentage	12.70%
Pine-wood-nematode prevalence of total pine-wood samples	1.62%
PWN prevalence of total nematode samples	0.38%
PWN prevalence from positive reports	38.52%
Average sample numbers per report	13.9758

**Field Services Section** personnel, under the direction of Michelle McGinnis, Ph.D., made about 7,550 grower visits in FY2014, primarily to help diagnose nutrient and/or nematode problems. Regional agronomists handled 360 inquiries regarding environmental issues in FY2014— primarily waste management plan clarifications, regulatory updates and river basin oversight reviews — and participated in local advisory committees. Don Nicholson was elected as an advisor to the board of The Corn Growers Association of North Carolina, and Mike Wilder was elected as an advisor to the board of the Strawberry Growers Association.

Five new regional agronomists were hired this year: Jacob Searcy (Region 2), Mike Wilder (Region 6), Colby Lambert (Region 9), Daniel Overcash (Region 11), and Chris Leek (Region 13). Georgia Love made a lateral move from Region 9 to Region 5 upon the retirement of Rick Morris. Adam Lassiter made a lateral move from Region 2 to Region 1 after the resignation of Rex Cotten. As these changes were being made, minor county reassignments were implemented for Regions 5, 9, 12 and 14.

### **Education & Outreach** (calendar year summary)

Agronomic Division staff, especially the **Field Services Section**, reach thousands of growers, homeowners and agricultural professionals through a wide range of educational activities. Honeywell provides funding for the distribution of a limited number of vouchers to cover the cost of plant tissue analysis as a means to introduce growers to this service. Regional agronomists play a key role in spreading the word about tissue testing and offering the free vouchers to interested growers.

In-house staff conducted at least 30 laboratory tours for farmers, master gardeners, agribusiness groups, scientists and students (see appendix). Information on agronomic services was disseminated through more than 20 educational exhibits displayed at farm shows, field days, training events and professional meetings (see appendix).

Outreach also included 25 news releases, interviews and/or tweets (see appendix). Many presentations on agronomic services were made to master gardeners, growers, commodity associations, conservation groups, and county and state organizations as well as to regional, national and international meetings. Groups to whom presentations were made include

- ! Raleigh Waste Water Treatment Plant Farmer Appreciation Day (Clayton; January 23, 2014)
  - Presentation: NCDA Agronomic Lab Services, D. Nicholson
- ! Montgomery County Animal Waste Operators (Troy, NC; Jan 17, 2014)
  - Presentation: Soil lab update, G. Love
- ! Peach Society Annual Meeting (Carthage; January 28, 2014)
  - Presentation: Soil Impacts from 2013 and Soil Lab Update, G. Love

- ! MASTPAWG (Richmond, VA; Feb 18, 2014)
  - Presentation: North Carolina P & K recommendations for grain in relation to yield goals, D. H. Hardy
- ! NC Muscadine Grape Growers Association (Kannapolis; Feb 20, 2014)
  - Presentation: Muscadine Grape Fertility, D. Nicholson
- ! Muscadine Growers (Kannapolis; Feb 21, 2014)
  - Presentation: Tissue sampling muscadine grapes, B. Cleveland
- ! Hoke County Master Gardener Class (Raeford; February 25, 2014)
  - Presentation: Soils and Fertilizers, G. Love
- ! Successful Small Farms Opportunities Conference (Louisburg; Mar 1, 2014)
  - Presentation: Soil testing & understanding your soil analysis, M. Wilder
- ! Cotton Production Meeting (Clinton, NC; Feb 26, 2014)
  - Presentation: Agronomic Division updates; Tim Hall
- ! Wagram Garden Club (Wagram; March 21, 2014)
  - Presentation: Getting the Most Out of Your Soil, G. Love
- ! Montgomery County Animal Waste Operators (Troy, NC; Jan 17, 2014)
  - Presentation: *Soil lab update*, G. Love
- ! MASTPAWG (Richmond, VA; Feb 18, 2014)
  - Presentation: *North Carolina P & K recommendations for grain in relation to yield goals*, D. H. Hardy
- ! Muscadine Growers (Kannapolis; Feb 21, 2014)
  - Presentation: *Tissue sampling muscadine grapes*, B. Cleveland
- ! Successful Small Farms Opportunities Conference (Louisburg; Mar 1, 2014)
  - Presentation: *Soil testing & understanding your soil analysis*, M. Wilder
- ! Cotton Production Meeting (Clinton, NC; Feb 26, 2014)
  - Presentation: Agronomic Division updates; Tim Hall
- ! Surface Irrigation System Operators Training School Field Day (Raleigh; Apr 2, 2014)
  - field demonstration: D. Nicholson
- ! Animal Waste Management Refresher (Raleigh; Apr 10, 2014)
  - Presentation: NCDA Agronomic Lab Services, T. Hall
- ! Land Application of Residuals Operators Training School (Raleigh; April 29, 2014)
  - Presentation: NCDA Agronomic Lab Services, D. Hardy
- ! Canola Field Day (Asheville; Jun 3, 2014)
  - Presentation: Growing Canola: Practices and Considerations, S. Dillon
- ! Cleveland County Cattlemen Meeting (Shelby; July 29, 2014)
  - Presentation: Agronomic Services for Cattlemen, S. Dillon
- ! Robeson, Scotland, and Hoke Counties Cotton and Soybean Scouting School (Lumberton; July 29, 2014)
  - Presentation: Nutrients and Nematodes, G. Love
- ! Summer Grazing Workshop, (Randolph County; Aug 21, 2014)
  - Presentation: The Fundamentals of Soil Sampling, C. Lambert
- ! Regional Strawberry Pre-plant Meeting (Nashville; Aug 19, 2014)

- Presentation: NCDA Agronomic Services: Soil, Solution, and Tissue Sampling, M. Wilder
- ! Agriculture and Agri-Food Canada (Ottawa, Canada; Sept 4, 2014)
  - Presentation: invited seminar, Molecular Diagnosis of Root-Knot Nematodes (*Meloidogyne* spp.) by the North Carolina Department of Agriculture & Consumer Services, W. Ye
- ! NRCS Record-Keeping Project Webinar (On-line; Sept 9, 2014)
  - Presentation: Agronomic Services for Cattlemen, S. Dillon
- ! Catawba County Cattlemen Meeting (Newton; Sept 9, 2014)
  - Presentation: Agronomic Services for Cattlemen, S. Dillon
- ! Dept. Plant Pathology, NCSU (Raleigh; Oct 8, 2014)
  - Presentation: invited seminar, Molecular Diagnosis of Root-Knot Nematodes (*Meloidogyne* spp.), W. Ye
- Northeast Ag Agents Training (Plymouth; Dec 9, 2014)
  - Presentation: Sending Soil Samples to the Agronomic Lab, J. Searcy
- ! Southeastern Strawberry Expo (Pinehurst; Nov 17, 2014)
  - Presentation: Getting Started in Plasticulture: The Annual Production Calendar and Overview of the New Production Manual, M. Wilder
- ! Southeastern Strawberry Expo (Pinehurst; Nov 17, 2014)
  - Presentation: Strawberry Fertility G. Love
- ! CCA Training (Jacksonville; Dec 13, 2014)
  - Presentation: Soilless Media Analysis, M. McGinnis

## Research

Division staff routinely engages in cooperative studies with university personnel, farmers and industry specialists.

The **Soil Testing Section** cooperated in the following research projects:

- NC State University Soil Science research project in evaluating the Falcon Automated Soil Sampler as compared to conventional sampling. Research conducted by M.R. student, Henry Edmondson, in cooperation with Carl Crozier and Jot Smyth.
- Continued support was given to the NC State University Soil Science project- Restriction of root growth by soil acidity from sandy coastal plain soil. Research conducted by M.S. student, Aaron Pettit, in cooperation with John Havlin and Josh Heitman.

The **Plant/Waste Solution/Media Section** continued its assessment of the phosphorus and calcium fertility needs of Fraser fir funded by an NCDA&CS specialty crop block grant. This project began in January 2012 and continued through September 2014. Data was compiled 1) to determine if detection of low P and Ca levels in plant tissue limits Fraser fir production; 2) to identify factors that impact P and Ca status (e.g., poor soil pH and fertility, improper sample collection, environmental stress, immature versus mature tissue at sample time); and

3) to fine-tune current sufficiency ranges for Fraser fir. The specific goal was to assess the effect of tissue P and Ca levels on tree quality and growth rate.

In addition, the PWSM Section participated in the following cooperative studies:

- 1) Bioenergy crop production on N.C. swine effluent spray fields — R. Gehl, Ph.D., NCSU Soil Science;
- 2) Soil fertility management for rapeseed production — Adam Lassiter, NCDA&CS Agronomic Division, and Carl Crozier, Ph.D., NCSU Soil Science;
- 3) Establishing tissue analysis standards for floriculture species — Brian Whipker, Ph.D., NCSU Horticultural Science.
- 4) Soil fertility management for grain sorghum production — Adam Lassiter, NCDA&CS Agronomic Division, and Carl Crozier, Ph.D., NCSU Soil Science.

The **Nematode Assay Section** participated in the following research projects:

- 1) Soybean variety test for plant-parasitic nematode – Pioneer Hi Bred;
- 2) New nematicide trial for plant-parasitic nematodes – Bayer Crop Science;
- 3) Cotton nematode management – Tidewater Agronomics
- 4) Biology and management of sting nematode in golf course putting greens – Dr. Jim Kerns (NCSU)
- 5) Molecular characterization and phylogenetic relationships of plant-parasitic nematodes associated with turfgrasses in North Carolina and South Carolina, USA – Dr. Jim Kerns (NCSU), accepted for publication in *Plant Disease*
- 6) Nematicide test on cotton nematode management – Victor Mascarenhas and Will Connell
- 7) Use of rotation and cultivar choice to reduce potential for nematode problems in peanut – Drs. David Jordan and Barbara Shew (NCSU)
- 8) First report of *Trichodorus obtusus* on turfgrass in North Carolina. USA. In press in *Plant Disease*.
- 9) Molecular diagnosis of plant-parasitic nematodes for various clients

The **Field Services Section** conducted or participated in research and demonstration projects in fields throughout the state. These projects were designed primarily to optimize crop-fertilization and nematode-management efforts.

During 2014, division staff engaged in the following field studies:

- 1) Evaluation of corn yield based on time of nitrogen application – Adam Lassiter
- 2) Effect of varietal maturity, planting date, and nitrogen rate on sorghum yield – Chris Jernigan
- 3) Evaluation of sorghum as a nematode management strategy (Year 1) – Chris Jernigan, Caswell Research Station
- 4) Examining the effects of high soil pH on micronutrient availability in strawberry – Georgia Love
- 5) Examining the effects of micronutrients applied at-plant on corn yield – 2nd year study – Georgia Love, Ron Heiniger
- 6) Evaluation of nitrogen rate on grain sorghum yield – Don Nicholson, Chris Jernigan, Georgia Love, Steve Dillon
- 7) Evaluation of Instinct II on nitrogen availability for corn on well drained and poorly

drained piedmont soils – Robin Watson

- 8) Assessment of Fraser fir tissue sufficiency ranges for phosphorus and calcium – Dwayne Tate, Brenda Cleveland
- 9) Assessing soil sampling methods for Fraser fir production – Dwayne Tate
- 10) Observation of plant tissue nutrients of corn over the course of a growing season – Chris Leek
- 11) Effect of variety and tillage system on canola yield for use as biofuel – Steve Dillon, Dwayne Tate, Chris Leek

## APPENDICES

### Laboratory Tours for Calendar Year 2014

1. Tobacco Short Course Lab Tour (40)	February 5, 2014
2. Master Gardeners (20)	February 12, 2014
3. New Hanover Master Gardeners (25)	February 19, 2014
4. FFA State Officers (10)	March 11, 2014
5. Sampson County Community College (15)	March 14, 2014
6. NCSU Soils 201 class (25)	March 25, 2014
7. NCSU Soils 201 class (20)	March 26, 2014
8. Onslow County Master Gardeners (20)	March 26, 2014
9. NCSU Soils 201 class (morning) (25)	March 27, 2014
10. NCSU Soils 201 class (afternoon) (25)	March 27, 2014
11. Wayne Community College Soils Class (40)	April 2, 2014
12. Wayne County Master Gardeners (10)	April 24, 2014
13. Brunswick Community College (12)	April 29, 2014
14. Surry County Agriculture Academy (15)	July 10, 2014
15. Visiting faculty from Liberia, Africa (8)	July 25, 2014
16. Wake County Master Gardeners (30)	September 4, 2014
17. Cumberland County Master Gardeners (30)	September 12, 2014
18. Catawba County Community College Soils Class (15)	October 23, 2014
19. University of Mt. Olive Soils Class (15)	October 28, 2014
20. Girl Scout Troop #510 (~10)	October 29, 2014
21. NCSU Soils 201 (~20)	November 4, 2014
22. NCSU Soils 201(~20)	November 5, 2014
23. NCSU Crop Science 213 (20)	November 5, 2014
24. NCSU Soils 201 (morning) (~20)	November 6, 2014
25. NCSU Soil 201 (afternoon) (~20)	November 6, 2014
26. NCSU Crop Science 211 (~20 in 2 different tours)	November 18, 2014
27. Wayne County Community College Soils Class (20)	November 20, 2014
28. NCSU Plant Pathology 503 (15)	December 1, 2014
29. NCSU Dr. George Naderman and Honduran visitor (2)	December 16, 2014
30. Bruce Niederhauser, Total Agronomic Services (2)	December 22, 2014



### **Professional Publications (external) for Calendar Year 2014**

1. Crozier, C. R., C.E.N. Savala, T.J. Smyth, and **D.H. Hardy**. 2014. Poultry Manure N Availability to Corn & Cotton Under Conventional and Conservation Tillage. Poster presented at American Society of Agronomy national meeting.
2. Kanzaki, N., Giblin-Davis, R.M., **Ye, W.**, Herre, E.A. & Center, B.J. 2014. Parasitodiplogaster species associated with Pharmacosycea figs in Panama. *Nematology* 16: (5): 607-619.
3. Zeng, Y., **Ye, W.** & Kerns, J. 2014. First report and morphological and molecular characterization of *Meloidogyne incognita* from *Radermachera sinica* in China. *Nematropica* 44 (2):118-129.
4. Davies, K.A., Giblin-Davis, R.M., **Ye, W.**, Taylor, G.S., Makinson, J. & Purcell, M. 2014. Nematodes from galls on Myrtaceae. X. *Fergusobia* from galls on narrow-leaved *Melaleuca* spp. in Australia, with descriptions of three new species. *Zootaxa* 3889 (2): 237-258.
5. Davies, K.A., **Ye, W.**, Giblin-Davis, R.M., Taylor, G.S., Purcell, M. & Thomas, W.K. 2014. Nematodes from galls on Myrtaceae. IX. *Fergusobia rosettae* n. sp. on *Melaleuca quinquenervia* and *F. tolgaensis* n. sp. on *Syzygium luehmannii*, from Queensland. *Zootaxa* 3889 (2): 214-236.
6. Giblin-Davis, R.M., Kanzaki, N., Davies, K.A., **Ye, W.**, Zeng, Y., Center, B.J., Esquivel, A. & Powers, T.O. 2014. *Ficotylus laselvae* n. sp. (Tylenchomorpha: Anguinidae) associated with *Ficus colubrinae* in Costa Rica. *Nematology* 16: 1139-1151.
7. Zeng, Y., **Ye, W.**, Yong, L., Huang, Y., Zhao, K., Zhang, Z., Liang, H. & Kerns, J. 2014. Morphological and molecular characterization of two isolates of *Paratrichodorus porosus* from Shenzhen, China. *Helminthologia* 51 (4): 323-330.
8. Aliramaji, F., Pourjam, E., Atighi, M.R., **Ye, W.**, Roshan-Bakhsh, A. & Pedram, M. 2014. Description of *Ektaphelenchoides poinari* sp. n. (Nematoda: Ektaphelenchinae) from Iran with a compendium of the valid species of the genus *Ektaphelenchoides* Baujard, 1984. *Russian Journal of Nematology* 22 (1): 11 – 22.
9. Davies, K.A., Bartholomaeus, F., Giblin-Davis, R.M., **Ye, W.**, Taylor, G.S. & Thomas, W.K. 2014. Nematodes from galls on Myrtaceae. VIII. *Fergusobia* from small galls on shoot buds, with descriptions of four new species. *Zootaxa* 3857 (1): 1-40. <http://dx.doi.org/10.11646/zootaxa.3857.1.1>
10. Jordan, D.L., Johnson, D., Corbett, T., Schultheis, J., Shew, B., Brandenburg, R. & **Ye, W.** 2014. Peanut response to crop rotations including clary, sage, snap bean, and sweet potato. *Crop Management*. DOI 10.2134/CM-2014-0038-RS.

11. Davies, K.A., Ye, W., Giblin-Davis, R.M., Taylor, G.S., Hodda, M. & Thomas, W.K. 2014. Nematodes from galls on Myrtaceae. VII. Fergusobia galls from 'leafy' leaf bud galls in Australia, with redescription of *Fergusobia tumifaciens* (Currie 1937) Wachek 1955 and descriptions of *Fergusobia planchoniana* n. sp. and *Fergusobia viminalisae* n. sp. *Zootaxa* 3856 (4): 529–554. <http://dx.doi.org/10.11646/zootaxa.3856.4.4>.
12. Sergei A. Subbotin, John J. Chitambar, Vlamidir N. Chizhov, Jason D. Stanley, Renato N. Inserra, Marcelo E. Doucet, Michael McClure, Ye, W., George W. Yeates, Dimitre S. Mollov, Carolina Cantalapiedra-Navarrete, Nicola Vovlas, Esther Van Den Berg & Pablo Castillo. 2014. Molecular phylogeny, diagnostics and diversity of plant-parasitic nematodes of the genus *Hemicycliophora* (Nematoda: Hemicycliophoridae). *Zoological Journal of the Linnean Society*, 2014, 171, 475-506.
13. Wöhr, M., Greeff, J.M., Kanzaki, N., Ye, W., & Giblin-Davis, R.M. 2014. Molecular and morphological observations on *Parasitodiplogaster sycophilon* Poinar, 1979 (Nematoda: Diplogastrina) associated with *Ficus burkei* in Africa. *Nematology* 16 (4): 453-462.
14. Meissner, H., DeWald, P., Jones, E., Lemay, A., Millar, L. & Ye, W. 2014. Pest survey of softwood boxes, with special emphasis on pinewood nematode, *Bursaphelenchus xylophilus* (Nematoda: Parasitaphelenchidae). *Bulletin OEPP* 44 (1): 37–43.

#### **Professional Publications (internal) for Calendar Year 2014**

1. **Cleveland, B.** 2014. Using tissue analysis to monitor cotton nutrition. Raleigh (NC): NCDA&CS Agronomic Division. 3 p.
2. **Ye, W.** 2014. NemaNote 18: Pinewood nematode sampling & assay. Raleigh (NC): NCDA&CS Agronomic Division. 3 p.

## **News Releases and Interviews for Calendar Year 2014**

1. Regional agronomists are a good resource (SB Grower) Jan/Feb 2014
2. New NCDA&CS regional agronomist for northeastern counties 3 Feb 2014
3. New NCDA&CS regional agronomist for southeastern counties 3 Feb 2014
4. New regional agronomist assignments for Catawba and McDowell counties 3 Feb 2014
5. Changes made to peak-season soil testing has reduced turn-around time. Samples are now being processed in 2 weeks. (tweet) 3 Feb 2014
6. New NCDA&CS regional agronomist for Rocky Mount area 10 Feb 2014
7. Still a good time to soil sample 11 Feb 2014
8. Manage spring strawberry fertilization with tissue testing (SB Grower) Mar 2014
9. Wheat needs nitrogen in spring 24 Feb 2014
10. N.C. Strawberries about two weeks late (radio interview, Don Nicholson on SFN) 4 Apr 2014
11. Third graders get “the dirt” about soil 7 May 2014
12. Tobacco Plant Supply (radio interview, Don Nicholson on SFN) 20 May 2014
13. New NCDA&CS regional agronomist serving Sandhills 4 Jun 2014
14. New NCDA&CS regional agronomist based at Tidewater Res Stn 4 Jun 2014
15. Users urged to submit soil sample information online 6 Jun 2014
16. Agronomists help Taylorsville produce grower expand 2 July 2014
17. Hydroponic lettuce takes root in eastern N.C. 14 July 2014
18. Recent rains effect on tobacco crop (radio interview, Don Nicholson on SFN) 27 July 2014
19. Lateness of tobacco crop and frost dates (radio interview, Don Nicholson on SFN) 22 Aug 2014
20. Tobacco production and fertility (Tobacco Quarterly Magazine) 27 Aug 2014
21. Peak-season soil fee period announced for 2014-2015 season 27 Sept 2014
22. Tobacco, cotton, peanut and soybean crops (radio interview, Don Nicholson on SFN) 30 Oct 2014
23. Money from dirt: NC soil lab uses fee to help spread the load (interview, Drs. David Hardy & Colleen Hudak-Wise, News & Observer) 6 Nov 2014
24. New NCDA&CS regional agronomist serving the western Piedmont 2 Dec 2014
25. Year-end wrap-up of crops for 2014 (radio interview, Don Nicholson on SFN) 9 Dec 2014

## **Educational Exhibits for Calendar Year 2014\***

- |  |                  |
|--|------------------|
| 1. NC Blueberry Council Trade Show & Open House (Clinton)        | Jan 14–15, 2014  |
| 2. NC Apple Growers (Asheville)                                  | Jan 14–15, 2014  |
| 3. Joint Conference (RTP)  | Jan 15–16, 2014  |
| 4. Green & Growin' Show (Greensboro)                             | Jan 15–17, 2014  |
| 5. Southern Farm Show (Raleigh)                                  | Feb 5–7, 2014    |
| 6. NC Commercial Blackberry & Raspberry Growers meeting (Shelby) | Feb 8, 2014      |
| 7. Vegetable/Tomato Conference (Asheville)                       | Feb 19–20, 2014  |
| 8. NC Muscadine Grape Growers Association (Kanapolis)            | Feb 20–21, 2014  |
| 9. NC Christmas Tree Association (Boone)                         | Feb 27–28, 2014  |
| 10. Organic Commodities & Livestock Conference (Rocky Mount)     | Mar 5, 2014      |
| 11. Summer Road Show (Raleigh)                                   | Aug 12-14, 2014  |
| 12. Caldwell County Nursery Field Day (Collettsville)            | Sept 12, 2014    |
| 13. Colfax Free Fair (Ellenboro)                                 | Sept 16-29, 2014 |
| 14. NC Greenhouse Vegetable Growers Meeting (Greensboro)         | Oct 20-21, 2014  |
| 15. Craven County Farm-City Celebration                          | Nov 1, 2014      |
| 16. Strawberry Expo (Pinehurst)                                  | Nov 17-19, 2014  |
| 17. Martin County Farm Heritage Day (Plymouth)                   | Dec 6, 2014      |

\* This list may not include all uses of personal display boards by regional agronomists at local/area meetings.

**Personnel Changes for Calendar Year 2014 (permanent staff)**

Nematology Technician (#60011811)

January 2014 — Maren Vetter resigned

June 2014 — Owen Turman hired

Research Technician (#60011805)

March 2014 — Joshua Peavey hired for position formerly held by Andrew Young

Research Technician (#60011804)

June 2014 — Dallas Young resigned

October 2014 — Dominic Gallaway hired

Regional Agronomist (#60011818) (position # switched from Region 2 to Region 1)

February 2014 — Adam Lassiter reassigned from Region 2 to Region 1

Regional Agronomist (#60011826) (Region 2)

February 2014 — Rex Cotton's old position reassigned from Region 1 to Region 2

June 2014 — Jacob Searcy hired

Regional Agronomist (#60011823) (position # switched from Region 9 to Region 5)

February 2014 — Georgia Love reassigned from Region 9 to Region 5

Regional Agronomist (#60011823) (position # switched from Region 5 to Region 9)

January 2014 — Rick Morris retired

June 2014 — Colby Lambert hired

Regional Agronomist (#60011820)

January 2014 — Chris Leek hired for position formerly held by Bill Yarborough

Regional Agronomist (#60011815)

February 2014 — Mike Wilder hired for position formerly held by Kent Yarborough

Regional Agronomist (#60011821)

August 2014 – Amy Poirier resigned

December 2014 – Daniel Overcash hired

Processing Assistant IV (#60011774)

October 2013 — Dreamer Alston resigned

March 2014 — Etta Gallaway hired

Information & Communication Specialist II (#60011779)

June 2014 — Catherine Stokes retired

Plant/Waste/Solution/Media Section Chief (#60011795)

September 2014 – Brenda Cleveland retired

Administrative Officer I (#60011771)

June 2014 — Helen Chestnut retired

July 2014 — Darlene Carpenter hired

Processing Assistant IV (#60011775)

September 2014 — Dawn Brooke hired for position formerly held by Darlene Carpenter

Processing Assistant III (#60011783)

September 2014 — April Fore resigned

Processing Assistant III (#60011772)

November 2014 — Deborah Green resigned