NCDA&CS working to increase pollinators statewide

Many farmers rent bees from commercial beekeepers to pollinate their fields. Here a bee is seen on blueberry blooms.

North Carolina, too,” said Agriculture Commissioner Steve Troxler. “I hope that as we learn more about managing these pollinator habitats and by sharing this information, more farmers will want to designate habitat

(See Pollinators, pg. 8)

The N.C. Bioenergy Research Initiative recently awarded $1 million in grants for 13 re-search projects to boost bioenergy opportunities and production in the state. “We are excited to have the opportunity to explore bioenergy potential through these grants for North Carolina’s agricultural and forestry industries,” said Agriculture Commissioner Steve Troxler. Below is a list of grant recipients and projects:

• $75,548 to N.C. State University’s Department of Soil Science to develop guidelines for bioenergy crop establishment, weed control and nutrient use. The results of this project are expected to create a more rapid return on investment and also identify programs to convert various land uses to bioenergy crops.

• $146,276 to NCSU’s Department of Biological and Agricultural Engineering to study giant reed response to nitrogen fertilization. This study will provide field data needed to establish realistic yield expectations and nitrogen fertilization rates for Arundo donax.

(See Bioenergy, pg. 4)

$1 million in bioenergy grants awarded to 13 projects

New effort under way to increase bee habitats on research stations, encourage private landowners to do the same

Pollination is crucial to the success of North Carolina’s $78 billion agricultural economy, and to consumers who enjoy the fruits and vegetables from the lar- bor of the bees, birds, butterflies and other animals involved. Up to a third of the food we eat can be directly attributed to the work of these insects and animals.

At a time when habitat loss, disease and environmental chang-es have contributed to the decline of pollinators, especially bees, the N.C. Department of Agriculture and Consumer Services is work-ing on several fronts to bolster their numbers. Efforts include expanding and protecting habitats on the farm and educating people on ways to protect pollinators.

“I first got interested in this during a trade mission to Europe where I saw farmers growing pollinator habitats. I knew this was something we could do here in North Carolina, too,” said Agriculture Commissioner Steve Troxler. “I hope that as we learn more about managing these pollinator habitats and by sharing this information, more farmers will want to designate habitat

From the tractor

by Agriculture Commissioner Steve Troxler

At the top of this page, I hope you will take time to read the article about new pollina-tor programs we are initiating in the department to help boost the habitat for pollinators. As many of you may know, there has been a decline in the bee population in the United States. Bees are gener-ally thought of as the workhorses in terms of plant pollination. And pollination is essential to agricul-ture. If you farm or are a land-owner, I hope you will consider dedicating space for pollinator habitat on your land. It seems like a pretty easy way to help out the insects and animals we rely on for much of our food. We will be talking about this issue and our efforts more in the future. I look forward to showing you what these habitats look like in bloom, and seeing what impact they have on pollinator numbers.

Agriculture and agribusi-ness remains our No. 1 industry, and production numbers for 2014 from the U.S. Department of Ag-riculture indicate another strong year for our farmers.

We saw record yields for cot-ton, peanuts and sweet potatoes, while soybean yields tied the re-

cord set in 2012. Although not a record, we also saw the largest production of tobacco since 1998. All-in-all, we finished with a good year despite the cool, wet spring that kept many farmers from getting in their fields earlier.

The one lower-performing commodity was corn, which fell 16 percent below 2013 produc-tion. I attribute that drop largely to a shift in production, with growers choosing to plant 90,000 fewer acres.

A lot of factors influence pro-duction choices, especially price, and yields can drive commodity prices up and down because of their impact on supply and de-mand. As farmers are making de-cisions for 2015, I know they will be looking at commodity prices and available supply.

Here is a snapshot of the 2014 commodities production numbers:

Cotton acreage held steady at 460,000, but the yield jumped to a record 1,049 pounds per acre, up from 1,014 pounds per acre, which was the previous record in 2012.

There were 93,000 acres of peanuts grown in North Caro-lina in 2014, with an average yield of 4,300 pounds per acre, 200 pounds more than the 2012 record.

Soybean production jumped 42 percent to 69.2 mil-lion bushels due to more acre-age being planted. Yield was 40 bushels per acre, which tied the record in 2012.

(See Commissioner, pg. 2)
The N.C. Department of Agriculture and Consumer Services’ Plant Industry Division will begin an extensive survey in Brunswick and New Hanover counties Feb. 1, for the sweet potato weevil, the most significant sweet potato pest in the world. “The survey is being conducted throughout the state to understand the standing of the weevil and its distribution in these counties, with the long-term goal of developing a program to eradicate the pest,” said Agriculture Commissioner Steve Troxler. “The sweet potato weevil is a significant threat to the state’s commercial sweet potato crop, which generates $198 million in cash receipts. North Carolina produces about 50 percent of the total U.S. production, and it is an important crop that we need to protect.”

The coastal areas of southern Brunswick and New Hanover counties are the only places in North Carolina where these weevils are found. To prevent their spread into the state’s sweet potato production areas, the department restricts the movement of regulated commodities such as sweet potato plants. The department also encourages residents not to plant sweet potatoes or host plants for weevils such as ornamental sweet potatoes on their properties.

The surveys will use green bucket traps baited with female-specific sex pheromone used to attract male weevils into the trap. The trap will also contain a contact insecticide to kill the trapped insects. Traps will be deployed in the two counties starting Feb. 1, and will collect information on the basic biology of the weevil and its current distribution in the area. N.CDA&CS staff will monitor the traps on a bi-weekly basis for the next two years and use the information gathered to prepare an integrated pest management program. The project is being funded through a specialty crop block grant from the U.S. Department of Agriculture.

“It is important that residents in these counties not disturb the traps when they see them, to avoid coming in contact with the small amount of insecticide in the traps,” said Vernon Cox, director of the N.CDA&CS Plant Industry Division. “We greatly appreciate the public’s help and encourage anyone with questions or concerns about these traps or on their property to contact us at 800-206-9333.”

For additional information, contact Philip Wilson at 919-707-3753 or at phil.wilson@ncagr.gov.

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Farmers also planted more acres of sweet potatoes in 2014, increasing production to 15.8 million hundredweight, a 49-percent increase from 2013. Yields topped the previous record by 10 percent, jumping to 220 hundredweight per acre. Tobacco production totaled 453.9 million pounds, a 25-percent increase from 2013 numbers.

The N.C. Department of Agriculture and Consumer Services is seeking input from residents in Person and Stokes counties concerning planned treatment activities for the non-native, highly destructive gypsy moth. Field monitoring activities conducted by the department in 2014 determined that reproducing populations of the gypsy moth exist in Person and Stokes counties and represent a threat to hard-wood trees. Residents in or near the proposed treatment areas have been sent notices by mail.

The following meetings are scheduled:

- **Tuesday, Feb. 5, at 7 p.m. at Pinnacle Volunteer Fire and Rescue, 1033 High Bridge Road, Pinnacle.** This meeting is for the proposed treatment of 762 acres in Stokes County. The area is about 3 miles east of Pilot Mountain, with Volunteer Fire Road passing through the southwest quadrant of the area, with the intersection of Brims Grove Road and Oscar Fye Road near its center.
- **Thursday, Feb. 12, at 7 p.m. at the Person County Extension Office Auditorium, 304 S. Morgan St., Roxboro.** This meeting is for two proposed treatment areas near Roxboro. The 6,448-acre Hardle Hills treatment area is about 7 miles west of Roxboro, with its center being near the intersection of Rolling Hills Road and Varborough Road with U.S. 158 passing along its northern boundary. The 14,040-acre Wooddale Road treatment area is about 5 miles north of Roxboro, centered near the intersection of Wooddale Road and Lawson Farm Road.

In early spring, gypsy moth caterpillars feed on the leaves of hundreds of plant species, predominantly hardwood trees. In heavily infested areas, trees may be completely stripped of foliage, leaving entire forests more susceptible to attacks by other pests.

Gypsy moths can also be a nuisance to the general public. Caterpillars may migrate in search of food, even entering houses and falling into swimming pools. Some people may have allergic reactions to the caterpillars' tiny hairs.

Options for dealing with gypsy moth infestations include aerial spraying of biological pesticides or gypsy moth mating disruptions. Trapping grids will be used to evaluate the effectiveness of these treatments.

The department has addressed spot introductions of the gypsy moth in several areas across North Carolina since the 1970s. The department is working with nine other states through the Gypsy Moth Slow the Spread Foundation and with other state and federal agencies to reduce the expansion of the gypsy moth into uninsected areas of the country.
Law enforcement issuing felony charges in protected plant cases

Law enforcement agencies are making a new law of a making use of a new law that makes poaching Venus flytraps from public or private lands a felony. In early January, the Wilmington Star-News reported that four men were charged with poaching flytraps after they were found by a N.C. Wildlife Resources officer with 900 plants in their possession at the Hill Farm, a 1,000-acre farm in Pender County.

A new law went into effect Dec. 1, making it a felony to take Venus flytraps or flytrap seeds from public or private lands. The men were the first in the state charged under the new law.

“We hope the threat of stiffer penalties will reduce the theft of flytraps as well as other protected plants or plants of special concern,” said Vernon Cox, director of the N.C. Department of Agriculture and Consumer Services Plant Industry Division.

Producers reminded to submit Census of Horticulture surveys by Feb. 5

Producers of floriculture, nursery and other specialty horticulture crops are reminded to submit their Census of Horticulture surveys by Feb. 5. This specialized census was last conducted in 2009, making it important to capture more recent information on horticulture production, said Dee Webb, state statistician of the National Agricultural Statistics Service’s North Carolina Field Office. The census captures and collates current and consistent data at the national and state levels, which assists policymakers, organizations and businesses in making decisions relative to the industry.

Surveys were sent to horticulture operations that grow and sell $10,000 or more of horticultural specialty products in 2012, as reported in the Census of Agriculture. The information collected is confidential. Federal law requires all producers who receive the survey to respond. Surveys can be submitted via a secure website at www.agcensus.usda.gov or by mail.

For more information on the Census of Horticulture, go to www.agcensus.usda.gov or call 919-856-4394.

Many plant sites are on public lands or lands under conservation management.

The charges in Pender County were not the only felony charges involving plants in the New World. In the western part of the state, a man pled guilty to felony laraceny of ginseng from private property. The root was stolen from a ginseng farm.

Producers of Venus flytraps are required to comply with all honey and bee industry regulations. Either the ginseng or Venus flytrap must be marked with a state permit number, which can be obtained from the N.C. Wildlife Resources Commission. Owners of these plants must also submit an online permit to begin cultivation.

The N.C. Department of Agriculture and Consumer Services has received a grant from the N.C. Tobacco Trust Fund Commission to offer branded non-waxed, water resistant produce boxes to Community Supported Agriculture farmers. Boxes would be marked with the Got to Be NC logo and would be available for CSA’s that are members of the Goodness Grows in NC/Go to Be NC program. Membership for the programs is free. For registration information on these programs, go to www.gottobenc.com/become-a-member. Boxes are expected to be bundled in lots of 50, with a cost-share to farmer of 50 cents a box. Boxes are expected to be available in early 2015. For more information about obtaining boxes, email your name, business name, address, email and daytime phone number to Jack Nales at jack.nales@ncagr.gov.

Risk-management classes for farmers offered in Feb. and March

The N.C. Department of Agriculture and Consumer Services will offer a series of risk-management workshops across the state in February and March. The workshops will focus on managing price risk, marketing and growing practices. The cost is $25 for the introductory class and $20 for the small scale beef production, poultry production and marketing, raising capital to start a new farm venture, using solar energy to power your farm, successful business planning for your farm, and utilizing mushroom production and marketing. Cost is $20 per person, or $10 for an extra family member before Feb. 20.

A "Successful Small Farm Opportunities Conference" will be held from 7:30 a.m. to 4 p.m. Feb. 28 at the Vance-Granville Community College Campus in Louisburg. Conference topics will cover pastured pork production and marketing, using social media on your farm, permaculture practices, and new beekeeping efforts to harvest Venus flytraps.

For a copy of the program and pre-registration form, go to granville.ces.ncsu.edu or contact Carl Cantaluppi at 919-603-1350 or carl.cantaluppi@ncsu.edu.

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To keep up with the latest on the N.C. Department of Agriculture and Consumer Services, check out the department’s blog at www.ncagr.gov/blog, where you can also find social media links.
Bioenergy

(Cont’d from pg. 1)

Tennessee Valley Authority Settlement Funds designated for research projects.

$96,620 to NCSU’s Depart-

ment of Horticultural Science to expand a new approach for developing improved energy c. es. The overall goal of this project is to develop elite cultivars of seedless energy c. es with superior bio- mass for economically and environmentally sustainable bioenergy production.

$32,438 to NCSU’s Clean Energy Technology Center for the development of science-based feedstocks for biofuel production.

energy.

• $90,000 to Tyton Bioenergy Systems for a project on nutrient development of energy tobacco.

• $75,764 to NCSU’s De- partment of Soil Science for a project on nutrient requirements and uptake of proposed biomass feedstocks.

$71,043 to NCSU’s De-

partment of Crop Science for a project evaluating biofuel production. Tyton’s goal is to develop new varieties of tobacco to produce advanced cellu- losic ethanol.

$116,661 to NCSU’s De-

partment of Soil Science for a project on nutrient dynamics and production of bioenergy crops in swine effluent sprayer fields. The continuation of this project will provide data to determine N and P nutrient requirements and up- take of proposed biomass feedstocks.

$38,914 to NCSU’s De-

partment of Soil Science to study the suitability of Piedmont soils for bioen-

cergy crop production. The goal of this project is to in-

vestigate the potential con- version of these soils to bioen-

gry crops with an emphasis on how soil biochemical and physical properties are impacted.

$40,513 to NCSU’s De-

partment of Forestry and Agricultural Engineering to develop a loblolly pine biomass genetics and cropping study. Genetic evaluation of loblolly pine varieties with high potential for conversion to energy sources should help producers de- velop agricultural and for- esty based feedstocks for bioenergy production.

$32,438 to NCSU’s Clean Energy Technology Center to reconvene the N.C. Bio- mass Council and update a “biomass roadmap.” The Biomass Council will offer an opportunity for discus- sion of biomass-related topics including research, policies and other issues to further the biomass effort in North Carolina.

$71,043 to NCSU’s De-

partment of Biological and Agricultural Engineering to study loblolly pine varieties with high potential for conversion to energy sources. The goal is to develop agricultural and forestry based feedstocks for bioenergy production.

$157,559 to NCSU’s State’s Fisheries, Wildlife and Conservation Biology Pro- gram to work on directing wildlife-friendly forest bio- energy development. Based on the results of this study, stakeholders will be provid- ed information on potential wildlife response to woody biomass harvests, and the results will be used to guide the development of science-based sustainability guidelines.

The N.C. Bioenergy Re- search Initiative is a program of the N.C. Department of Agriculture and Consumer Services. Its goals are to support the development of agricultural and forestry-based feedstocks for bio- energy production, agribusiness development and cooperative research for biofuels production.

The N.C. General Assem- bly approved funding to stimulate energy production from N.C. agricultural and forest products. High consideration was given to projects that focused on crop production in the field and forest that would provide feedstock for conversion into cellu- losic ethanol.

grown under various North Carolina conditions.

$75,000 to the N.C. De- partment of Crop Science for an evaluation of bio- energy grasses for nutrient content. The results of this project will be useful in selecting breeding stocks for future grow- ment for high dry matter and energy yields.

$69,000 to Tyton Bioen-

gy Systems for a project on nutrient development of energy tobacco for biofuel production.
FARM EQUIPMENT

FARM EQUIPMENT

FARM EQUIPMENT

2013 field cult., Unverther Perf. 15, 1st fixed frame, used for 2 ea. 830s, $10,500. Call Aggregates & More, 304-225-9234.
Barnes, Lenoir 908-298-2240.


**Hay & Grain For Sale**

Hay & grain for sale: 24x7 Hay sales. 24/7 delivery available. 10-50 ft, 50 lbs, bale. $25.00 ea. John Kapp, Rural Falls, 336-382-1655.

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**Hay & Grain Wanted**

Approx. 75-100 4x4 melts for feed or garlic feed; within 50 mi. of Asheboro, NC. Nathan May, 336-559-9001.

**Horses & Livestock Wanted**

**Land for lease to 2015 & future years for deer hunting with hour drive of Salem.**

**Land for lease to 2015 & future years for deer hunting with hour drive of Salem.**

**Livestock For Sale**


**Land for lease to 2015 & future years for deer hunting with hour drive of Salem.**

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**Livestock For Sale**

LIVESTOCK

ADGA spec. spoke, Nubians, 1s, 315s, 500s, 750s, 1000s, 1250s,
crise, feed, calve, free, 1000-300. Bonnie Allig,
Randleman 919-948-1366.

Bulldozer and baler, 6 m, Angus ai, sold in good dems, 710. Justin Ridenhour, 704-633-2182 or 239-450.

Allyn, New London 704-798-7015.

Rising Creek/Kastdemur/Pruit

color, nat’l champion bloodlines,
$336-498-5034.

Rising Creek/Kastdemur/Pruit

color, nat’l champion bloodlines,
$336-498-5034.

D.R. Dennis, Randleman 919-553-4133.

2014 hatch, Indian blue, blk. shoulder,
$35/ea. Bill Jarman, Gastonia 704-
$60/pair; green wing teal drakes,
$336-498-5034.

leghorn, 1½ y/o laying hens, tame &
up. Ronny Pope, Carthage 919-
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on their own land and use the techniques to help improve the number of pollinators. There will be more outreach efforts in the coming year to explain ways that landowners can join the effort, Trestle said. Three points for growers to consider: recognize native pollinators and pollinator habitats already on the farm, adapt existing farm and land management practices to avoid causing undue harm to pollinators, and provide habitat for native bees on and around the farm. Several NCDAC&S divisions are actively involved in increasing habitat and support-}

Delicious, blue-ribbon-winning recipes from the N.C. State Fair

Caramelized Pork Sliders recipe from theTar Heel Pork Challenge contest

Julia Truelove of Raleigh won first place and $200 for her Caramelized Pork Sliders recipe in the N.C. Pork Council’s Tar Heel Pork Challenge. All entries had to include at least 4 ounces of pork. Entries were judged on taste appeal, appearance, creativity and ease of preparation.

Caramelized Pork Sliders

For the pork:

1. 1-pound pork tenderloin
2. salt and pepper

For the topping:

1. 2 tablespoons olive oil
2. 2 tablespoons apple cider vinegar
3. 1 teaspoon salt

Preheat oven to 375 degrees.

Place the pork tenderloins on a rack placed on top of a cookie sheet and roast for 25 to 30 minutes, turning occasionally, until the pork reaches an internal temperature of 140 degrees. Transfer to a cutting board and allow to rest 10 minutes.

Meanwhile, in a large sauce pan over medium heat, melt the butter and add the onions and peppers. Allow to cook for 10 minutes, stirring occasionally to keep from burning them. Add the remaining 1/2 cup brown sugar, vinegar and salt. Cook until the liquid evaporates, about 20 minutes, stirring often.

To assemble the sliders, slice the pork into 1-inch-thick slices. Stuff each roll with a slice of pork, a slice of apple and a spoonful of caramelized onions and peppers. Serve immediately. Serves 6.

Peanut Butter Bacon Cannoli is a winner

A Peanut Butter Bacon Cannoli by Gui Fuller of Raleigh took first place and $200 in the N.C. Peanut Growers Association’s Peanut Appetizer Contest at the N.C. State Fair. Entries were judged on taste and flavor, creativity and ease of preparation.

Peanut Butter Bacon Cannoli

1. 1 14.5-ounce can diced tomatoes
2. 3/4 cup unsalted butter
3. 2 tablespoons tomato paste
4. 4 cloves garlic, minced
5. 1 jalapeno, seeded and minced
6. 3/4 cup raw peanuts, shelled, blanched, peeled and roughly chopped

Place beef brisket on top of a grit cake, then an egg and grits. Pour the gravy over the brisket, and cover completely. Take pecans out individually and add them to the gravy. Let cool for about 20 minutes. Gently slide bacon tubes off the forms. Line a baking sheet with foil. Using cannoli tubes or rolled heavy duty aluminum foil tubes, wrap one slice of bacon tightly around tubes, overlapping edges. Bake for 20 minutes or until bacon is crisp.

Recipes had to use bacon as the meat ingredient. Entries were judged on taste, creativity and appearance. The winning recipe follows:

Peanut Butter Cup Chili

2 pounds ground beef (chuck or sirloin)
2 tablespoons olive oil
2 tablespoons ketchup, salt divided
2 medium onions, diced
4 cloves garlic, minced
1 jalapeno, seeded and minced
1 teaspoon pure vanilla
1/2 teaspoon cayenne pepper
1/2 teaspoon black pepper
1/2 teaspoon ground cumin
1/2 teaspoon salt.

Stir the brown sugar and peanut butter into the pot. Stir until smooth, and then return to a simmer.

Pecan Kisses recipe wins judges hearts

Isabella Lambeth of Wake Forest won $100 for her Pecan Kisses recipe in the N.C. Pecan Association Pecan Recipe Competition. All entries had to include at least one cup of pecans that have been grown in North Carolina. Entries were judged on taste appeal, appearance, creative use of pecans and ease of preparation. The winning recipe follows:

Pecan Kisses:

Makes 2 cups of kisses
Preparation Time: 10 minutes
Cooking Time: 30-minute cook time plus 30-minute rest time

Mix together beaten egg yolk, brown sugar and vanilla. Drop pecan halves in the wet mixture to cover completely. Take pecans out individually and place on a greased 17 x 14 x 1 inch baking sheet 2 inches apart. Bake at 250 degrees for 30 minutes. After 30 minutes, turn off oven and leave pecan kisses in the oven for an additional 30 minutes. Take out of oven and place in bowl.

Winning Chipotle Benedict with Crispy Cheddar Grit Cakes recipe

A Chipotle Benedict with Crispy Cheddar Grit Cakes by Amanda Bourn of Raleigh took first place and $250 in the House-Autry Mills Miss My Grits Contest at the N.C. State Fair. Entries were judged on taste and flavor, creativity and ease of preparation.

Chipotle Benedict with Crispy Cheddar Grit Cakes

1 package of House Autry Cheddar Dinner Grits
2 tablespoons butter
3/4 cup unsalted butter
5 eggs yolks
1 tablespoon water
1 tablespoon lemon juice
Salt and pepper
4 teaspoons or (up to 1 tablespoon) chipotle peppers in adobo sauce
6 eggs
Basil brisket

Peanut Butter Cup Chili recipe takes top honors in N.C. Cattlemen’s Beef Council’s Chili contest


Recipes had to use beef as the meat ingredient. Entries were judged on taste appeal, appearance, creative use of pecans and ease of preparation.

The winning recipe follows:

Peanut Butter Cup Chili

1 tablespoon chili powder
1 tablespoon ancho chili powder
2 teaspoons ground cumin
2 teaspoons dried oregano
1 teaspoon paprika
1/2 teaspoon cayenne pepper
1/2 teaspoon black pepper
14.5-ounce can diced tomatoes
14.5-ounce can beef broth
3 ounces dark chocolate
2 tablespoons brown sugar
1/4 cup creamy peanut butter
Sour cream
Chopped green onions

Sprinkle the ground beef with 1 teaspoon salt. Brown the meat in olive oil in a large Dutch oven or heavy saucepan over medium-heat. Drain all but 2 tablespoons of drippings from the pan and add onions. Saute the onions until translucent, then add garlic and jalapeno. After 1 minute, add the remaining teaspoon of salt, spices, peanuts, tomatoes, beef broth and chocolate. Stir well, bring to a simmer, and reduce heat to low. Continue simmering, stirring occasionally for 1 hour and 15 minutes. Add additional beef broth or water to the pot if it begins to get dry. Remove about a 1/2 cup of liquid into a heat proof bowl. Stir the brown sugar and peanut butter into the bowl of liquid until smooth, and then return to the pot. Stir, add salt and pepper to taste, and serve. Serve with sour cream and green onions.

“Beef brisket on top of a grit cake, then an egg, top with chipolte hollandaise sauce.”

Peanut Butter Bacon Cannoli is a winner

A Peanut Butter Bacon Cannoli by Gui Fuller of Raleigh took first place and $200 in the N.C. Peanut Growers Association’s Peanut Appetizer Contest at the N.C. State Fair. Entries were judged on taste and flavor, creativity and ease of preparation.

Peanut Butter Bacon Cannoli

1 14.5-ounce can sliced bacon (12-14 slices)
1/4 cup 10x powdered sugar
1/4 cup smooth peanut butter
4 ounces whipped topping
2 ounces cream cheese
2 tablespoons chopped peanuts for garnish

Preheat oven to 375 degrees.
Wheat needs nitrogen in spring; submit samples now

The N.C. Department of Agriculture and Consumer Services reminds growers that properly timed spring nitrogen applications are essential to the growth and development of wheat. Assessing nitrogen needs now will optimize yield later.

To decide how much spring nitrogen to apply, wheat specialists advise submitting two samples of wheat leaves to the department’s Agronomic Services Division for testing. One sample will be used to measure plant nutrient content, the other to measure biomass. Both tests are necessary to obtain the most precise recommendation. The fee is $5 per sample for N.C. residents and $25 per sample for residents of other states.

“Tissue sampling should be done when wheat reaches Zadoks growth stage 30 (GS-30),” said Michelle McGinnis, the division’s field services chief. “To determine growth stage, wait until wheat begins to stand up tall and straight. Then pull several plants, split the stems from the top to the base and look for the growing point. Before GS-30, it will have moved about one-half inch up the stem (Fig. 30), it will have moved about one-half inch up the stem (Fig. 1).”

Agronomists expect most wheat in the eastern and piedmont regions of the state to reach GS-30 sometime in early to mid-March. Applying nitrogen earlier than that could cause tender new growth that would be susceptible to injury during cold snaps. On the other hand, waiting until after jointing increases the chances of damage by application equipment.

“Once GS-30 is reached, growers should immediately collect tissue samples and matching above-ground biomass samples.” McGinnis said. “This is especially true if wheat is lush due to warmer weather or early planting dates. If the crop’s need for nitrogen is not met at this time, then tillers will abort and yield will be reduced.”

To tissue sample, cut wheat plants about one-half inch above the ground in 20 to 30 representative areas throughout a field. Generally, two large fistfuls of leaves will make a good sample. Remove dead leaves and weeds before placing the sample in a paper bag.

A biomass sample, on the other hand, should contain all the above-ground wheat-plant tissue from one representative, 36-inch section of row. In broadcast fields, collect all the plants from one square yard. Place the sample in a paper bag, and write the sample ID from the corresponding tissue sample and the word “biomass” on the bag.

Collecting biomass samples has only recently become part of the nitrogen determination process. Dr. Randy Weisz of N.C. State University developed a method of using biomass weight along with tissue test results to calculate more specific nitrogen recommendations. He has taken into account nitrogen differences due to planting date, row spacing and moisture levels. For wheat grown on large acreages of poorly drained soils, however, growers should consult with an agricultural adviser about whether this method is likely to be useful.

Upon receiving the NCDACS plant analysis report, growers should first look for the biomass and nitrogen percentage values. These values and certain crop planting details help determine the appropriate nitrogen rate, based on Weisz’s interactive tool. This method is explained thoroughly online at www.smallgrains.ncsu.edu/_PubSP/GNIT nitrogen.pdf.

North Carolina growers wanting more information about this method should contact their regional agronomist, county Cooperative Extension agent or other agricultural adviser. Regional agronomists, in particular, can offer advice on how to collect and submit tissue and biomass samples, and how to interpret and use plant analysis report data. Contact information is available online at www.ncagr.gov/agronomi/ra-home.htm.

**AgroTips**

Ensure that adequate nutrients will be available for a newly planted wheat crop. If soil pH needs adjusting and you have not done so, go ahead and apply lime before planting. Next, give wheat a good start by fertilizing according to soil test recommendations, especially with regard to phosphorus, potassium and sulfur. When the crop is planted on time, 15 to 30 pounds of preplant nitrogen per acre should be sufficient to promote maximum growth and tillering.

Nitrogen will be especially important if wheat is planted after grain sorghum on sandy soils with low CEC because soil nutrient reserves may have been significantly depleted. In that situation, be particularly attentive to crop development. Yellowing, poor stand establishment and lack of tillering could signal a need for additional nitrogen as the season progresses.

Remember to check for nematode problems during crop harvest. Plant-parasitic nematodes are common in all field crop soils and often lower yields without being very apparent. Fall is an excellent time to find out if nematode populations are high and, if so, to develop a plan to manage them. When the weather is good for harvest, it is also good for collecting soil samples for nematode assay.

Nematode populations peak at the end of the growing season so samples assayed at this time provide an accurate description of potential hazards. If you submit samples in the fall, you will have time to plan a management strategy.

If you noticed localized areas of poor growth during the growing season, it is a good idea to collect separate soil samples from good and poor areas. Submit two samples from each of these areas—one for nematode assay and one for soil fertility. Comparison of results from good and poor areas and from nematode assays and soil tests is helpful in pinpointing a problem.

Before planting legume cover or forage crops, be sure to submit soil samples, or get revised recommendations based on recent soil test report data.

High fertilizer costs may have you considering the use of legumes as a cover crop or as part of a forage program. If so, be sure to refer to recent soil test report data for your fields as you plan. Legumes have different fertility than many traditional crops.

It is usually not necessary to collect new soil samples from fields that have been sampled within the last two (sandy soils) or three (clay soils) years. To get revised updated recommendations for your current situation, consult your regional agronomist. If you need to collect new samples, send them to the Agronomic Division soil testing lab now to avoid processing delays that are common during the fall/winter. The sooner you get your results, the sooner you’ll be able to finalize lime and fertilizer purchases or make plans to plant legume cover or forage crops to supply additional nitrogen.

1440 John combine with 213 grain and 40” header, $18,000. 4238. Cindy and carriage, GC, $6,500. Joel Barker, Statesville 704-335-6716. 948-4238.

6 pockets with fertilizer hoppers, 3


NH 273

1968 Ford backhoe front end loader, working in 07 engine got a rust out, complete, $2,500 tractor, oil only, backhoe, $1,700; loader, $1,500, will part out, yours for $1,000. Ray Milis, Pittsboro 919-444-9416. 79 M Farmall 140, cab, filt., no leaks, original seat, VG, $3,900. Ver- non Slade, Gastonia 704-574-2025.

Kent Rollins, Olbster 910-987-3834.


FARM EQUIPMENT

To save costs, NCDACS moves to online soil tests and other agronomic reports.

The N.C. Department of Agriculture and Consumer Services will no longer rou-
tinely mail out paper copies of agronomic reports. This policy, which went into effect Nov.-
1, will only apply to soil tests and nematode assays, as well as plant tissue, waste, solu-
tion and soilless media analyses.

All these reports are readily available through the NCDACS Agronomic Division’s Web site, www.ncagr.gov/agronomi.

“By making the switch to electronic-only reports, the NCDACS Agronomic Division will work within its limited budget to save signifi-
cantly on postage, printing and paper costs,” said Dr. Colleen Hudak-Wine, director of the Agronomic Division. “Al-
though environmental and fiscal benefits are driving this change, clients should also see increases in convenience and efficiency. Online reports are available to clients faster than mailed re-
ports and make record keeping easier.”

“Copies can be easily down-loaded and saved, and the analytical data can be exported to spreadsheet format,” Hudak-Wine said.

Eventually, the NCDACS Agronomic Division will also phase out sending printed reports. Clients who provide a valid email address on their sample information form, or who reg-
ister an email address with the Agronomic Division online, can receive electronic notification. In the interim, all other clients will receive a postcard with instruc-
tions on how to find their reports.

Clients who visit the Agronomic Division home page should select the “Find Your Re-
port” link from the left-column navigation bar. This link takes visitors into the division’s labora-
tory-information site, known as PALS. For most people, using the “Quick Search” is the most convenient way to access reports.

Basic instructions are outlined at www.ncagr.gov/agronomi/reportsearch.htm. Anyone who has difficulty using the PALS report-search feature or has questions can call (919) 334-9100.

Livestock results (Cont’d from pg. 3)

These competitors at the N.C. State Fair were all smiles before entering the show ring.

Beef cattle, Red Angus

• Grand champion female shown by JK Red Angus of Aberdeen (Hoke County)
• Reserve grand champion female shown by Ben and Cheryl McNeese of Bladen County (Bladen County)
• Reserve grand champion bull shown by TX Enterprises of Winston-Salem ( Forsyth)
• Reserve grand champion bull shown by John Michael Langdon of Bem Ben (John-
ston)

Beef cattle, Limousin

• Grand champion female shown by Av-

FARM EQUIPMENT

3 Farrowing crates.  Feeders and wate-

B&S Ducer - no ripper, till blade, $180. Larry East, Sophia 336-935-
1555.

Ford SB, finish meter 650, 60, 60. Bushong Brand finish meter $1,000. 1971 140 Farmall cultivator, front and back, fertilizer distributor, 3pt, and 1 pt, hitch, $4,400. R. Col-
lin 735-366-4206.

25 bushel manure spreader, new, made by Conestoga manufacturing.

22 ft chisel plow, drive with or without tractor, $1,835. Bob Richends,蝗sted, 882-688-1770.

Greenhouse 22x70, 4 stall, filter, 4 stall, filter, $3,950.

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FARM EQUIPMENT

Woods Bush Hog, B960C, used once. Includes drive, clip, hitch, pictures available on request, $1,050. Woods guard blade, 72", RD72, EC, $440. Gary Howell, Norwood 704-
474-3988.

Simon Grade Bello bule sepalos, EC, $21,900. Reecn 300 hay condi-

John Deer 790 4X4 tractor with a loader, box bade, finish mower, 8 ft drive on trailer. LNE, kept inside, 06 model, $13,900. Wayne Doby, Mooresville 704-664-1957.

Vicon SP741 Square baler, GC, $2,500. Brad Moore, Liberty 336-
679-2725.

John Deere 145 Loader, GC, $2,000. Eddie Wright, Winston-
Salem 336-769-9228.

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Eventually, the NCDACS Agronomic
Division would like to notify all clients
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available online.

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The deadline for the January issue of the Agricultura Review is Dec. 1, and
the deadline for the February issue is Jan. 4.