

**STRAWBERRY**  
NORTH CAROLINA STRAWBERRY ASSOCIATION



**GROWER**  
OCTOBER 2015

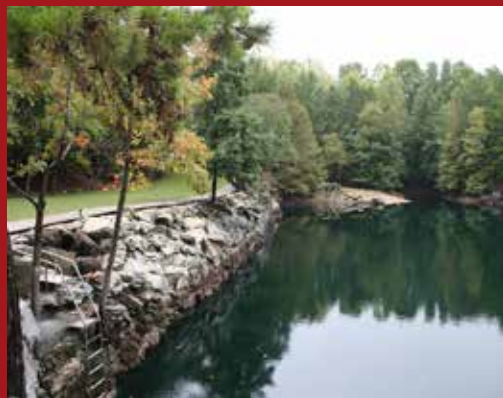
**EXPO EDITION!**

∞ 45<sup>th</sup> Annual ∞

# Southeast Strawberry Expo



**TRUST US, YOU DON'T WANT TO MISS THIS:**



- Inside scoop on issues that matter to you *right now*: anthracnose and disease management, social media, food safety, and much more!
- Workshops: intro to social media, intro to plasticulture, and NC pesticide credits
- Farm Tour at Bush-N-Vine, Carrigan Farms, on-farm dinner included
- Networking with growers, industry, and experts.
- Nearby racing, shopping, & fine dining
- Comfortable and roomy accommodations at Embassy Suites

**November 16-18, 2015 ❖ Embassy Suites ❖ Concord, NC**

# Upcoming Events

## Berry Health Benefits Symposium

October 13-15, 2015 \* Madison, Wisconsin

The only conference focusing solely on berries & human health. Attendees will: Hear cutting edge research on the effect of berries on human health & wellness, Attend sessions on Berries & Heart Health, Metabolism, Cancer, Brain Aging, Compositional Chemistry & Biological effects, Gut Health/Gut Micro flora; Meet and network with others involved in nutrition, health, the berry industry, manufacturing & more; Tour the Cranberry growing regions of Wisconsin during harvest. [www.berryhealth.org](http://www.berryhealth.org).

## Southeast Strawberry Expo

November 16-18th, 2015 \* Concord, North Carolina.

Don't miss this opportunity to network with other strawberry growers, industry members, and experts, and hear talks from other growers and researchers on how you can maximize your production and profit in the strawberry industry!

## Southeast Regional Fruit and Vegetable Conference

January 7-10, 2016 \* Savannah, GA

The Southeast Regional Fruit and Vegetable Conference is the largest educational conference and trade show in the southeastern United States that unites growers, vendors and suppliers. Anyone with an interest in specialty crop agriculture is invited to be a part of this event. More info at <http://www.seregionalconference.com/>.

## North American Strawberry Growers Association Annual Meeting and Conference

January 7-9, 2016 \* Savannah, GA

NASGA is joining the Southeast Regional Fruit and Vegetable Conference for their annual meeting and conference. The format is slightly different for this conference. Thursday January 7th will feature a day full of great talks including two grower profiles. Friday January 8th features a full day farm tour and on Saturday January 9th we will go back to another full day of strawberry talks. More information at [www.nasga.org](http://www.nasga.org)

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# October Growers Checklist

## Planting

- Check plants for possible biological (insects and diseases) and physiological (nutrient) disorders prior to planting and treat appropriately. Consult your extension agent if plants appear unthrifty. Get diagnosis if disease is suspected. Notify plant seller of any problems.
- Set plants carefully – planting depth is extremely important to getting off to a good start. Set plug plants deep enough to have approximately 3/8” of soil covering the top of the media plug. Set fresh dug at the depth at which they were growing in the nursery or mid-way on the crown.
- If you establish plugs with drip irrigation only, be sure to hook up the system before planting. Drip irrigate often enough after transplanting to keep beds near field capacity during the first four weeks. Avoid having standing water. Using a water wheel transplanter is recommended if no overhead irrigation is available.
- Irrigate fresh dug plants 9 am–5 pm for 7–12 days. (More may be needed if weather is hot and sunny.) Growers typically reduce irrigation times on the “tails” of the day during the latter part of fresh dug establishment (later am start times and earlier pm stop times). Let the plants tell you when they are becoming established and adjust irrigation schedules based on plant response.
- Place order for row covers NOW; these will help greatly to conserve irrigation water during frost protection next spring and...
- If planting is delayed a week or more, fall row covers can help enhance plant growth and partially compensate for late planting for both Chandler and Camarosa.
- A row cover applied in the first 2 weeks of November may enhance flower bud development in the crowns and improve spring yields - this may be especially helpful for later plantings of Chandler. Row cover research in the Mountains, Piedmont and Coastal Plain has shown that Camarosa yields are optimized with 800 Growing Degree Day units in the fall (Oct-Dec), and Chandler needs about 650 GDD units.
- Growers should consult seasonal climate data and predicted long range forecasts before they install row covers. Dr. Ryan Boyles, Director of NC State Climate Office suggests that growers look for guidance from the Climate Prediction Center's 6-10 and 8-14 day outlooks here:  
<http://www.cpc.ncep.noaa.gov/products/predictions/610day/interactive/index.php>  
<http://www.cpc.ncep.noaa.gov/products/predictions/814day/interactive/index.php>

## Post-Planting Maintenance

- If deer predation has been a historic site problem, install fencing NOW. A double row of electrified fence (tape or wire type) has been effective when installed early in the season. Consider attaching foil, paper plates or grocery store plastic bags at regular intervals to increase the visibility of the fence.
- Drip irrigate in the fall as needed to keep soil from drying out.
- Scout for pest injury, including deer.
- Check for dead plants and reset ASAP. Send suspicious-looking plants to the Disease & Insect Clinic for positive ID; notify plant seller of any problems.
- If unseasonably warm temperatures during row cover treatment were followed by unseasonably cold temperatures, plants may not acclimate and tissues could have a reduced cold tolerance. One way to improve winter cold hardiness of Albion is to de-blossom in the fall. This may be needed on plug plants of Albion, but not cut-offs. Do not pull off the blooms - you could damage the root system; use small scissors instead. Also, be mindful that Albion is very susceptible to cold injury in the fall, and row covers must be applied in October if there is threat of any temperature below mid-20s.
- Consider removing dead leaves from plants in Nov-Dec to minimize grey mold. Don't hand prune if anthracnose is known to be present. ♦

# Healthy Fields – Healthy Yields



TOBACCO - ROW CROPS - PLASTIC CULTURE CROPS - GOLF COURSE - TURFGRASS

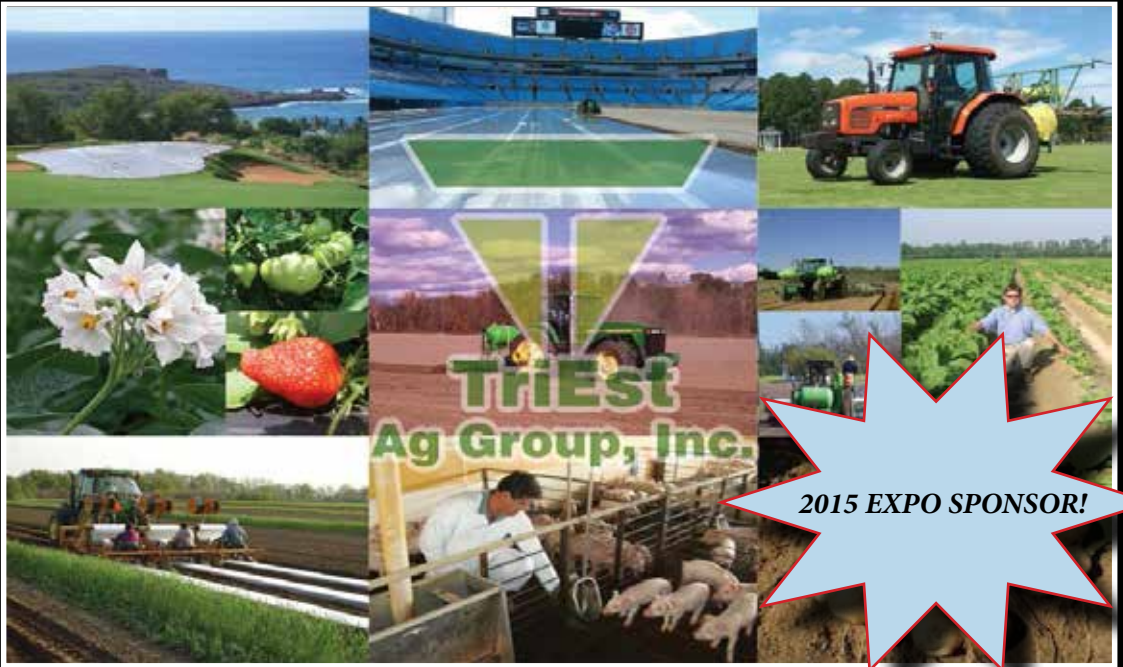
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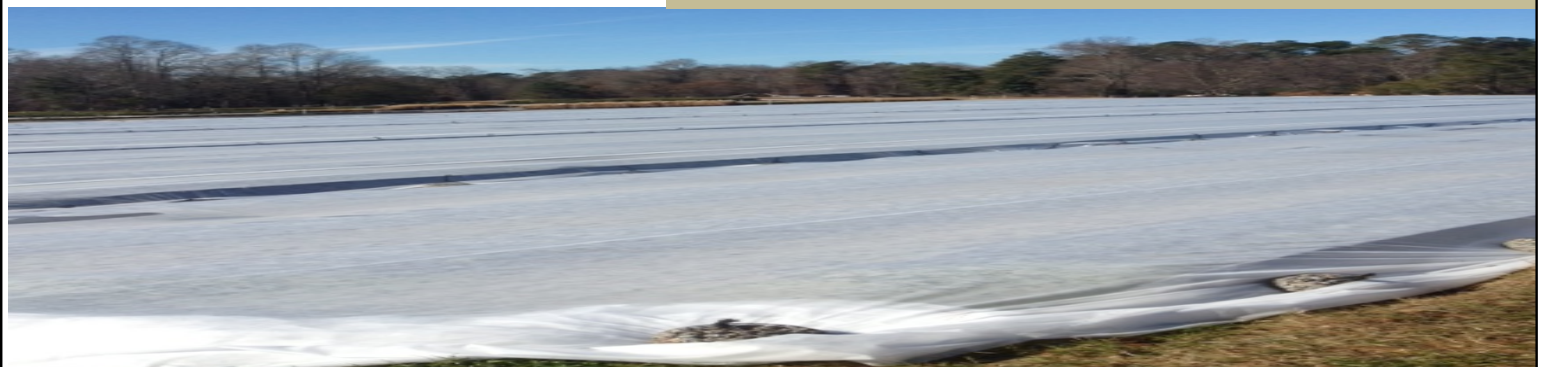
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Evelyn Poole, President

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# Don't Miss Farm Tour 2015!!

This year, the association has selected two family farm operations that will share years of experience and insight with tour participants. These growers are veterans not only in strawberry production, but farm diversification, marketing, and agritourism. With two stops this year, there will be plenty of time for in-depth tours of each location as well as question and answer sessions. We are so pleased that the Hall family at Bush-N-Vine, and the Carrigans of Carrigan Farms will be graciously hosting us this year!

## **Bush-N-Vine Farm**

York, SC

The Bush-N-Vine has been in the Hall family for over 150 years. Originally it was solely a peach farm. The old building on the farm in York, SC was used as a peach packing shed from the 1930's until the 1960's. In 1979, Bob Hall reopened the doors using the space as an open-air market. After graduating from Clemson University in 1980 Bob made farming his career. He has been selling delicious fruits and vegetables in the stand ever since. His hard work and dedication to farming are the reason Bush-N-Vine Farm is what it is today! In 2010 after graduating from Clemson University, Sam Hall started working full-time on the farm. The Halls are dedicated to continuing the family tradition of producing fresh fruits and vegetables like it has for the past several generations.

Farm tour guests will learn about the Hall's diversified vegetable production, their 250-person CSA program and their latest marketing efforts. There will be time to visit their large farm store and see demonstrations of picking assistant and plastic mulch lifting equipment. For more information on Bush-N-Vine, visit [www.bushvinefarm.com](http://www.bushvinefarm.com).



## **Carrigan Farms**

Mooreville, NC

A fifth-generation family-owned farm, Carrigan Farms specializes in growing quality fruits and vegetables, educational school tours and field trips, weddings, swim parties, and other special events. The Carrigan family has been farming the same piece of land for over 100 years, growing everything from asparagus to zucchini.

At Carrigan farms you will learn about their innovative marketing efforts and event space. You will enjoy their beautiful rock quarry, where they often stage weddings, company picnics and open swim time during the summer. Farm tour guests will enjoy a fresh and delicious farm-to-table style dinner, incorporating ingredients from Carrigan farms and served in their events pavilion adjacent to the quarry. More information on Carrigan Farms can be found at [www.carriganfarms.com](http://www.carriganfarms.com).



# Expo Agenda 2015

## Monday, November 16, 2015

7:30am-6pm	Registration Open - Foyer		
9:00am -12:00pm <b>Workshops</b>	<b>Getting Started in Plasticulture</b> <i>James Kenan and David Dycus</i>	<b>Introduction to Social Media for Farm Marketing</b> <i>Jenny Prevatte</i>	<b>North Carolina V- Credits Workshop (Pesticide Applicator Renewal Credits)</b> <i>John Ivey</i>
12:30 pm-7:00pm	Farm Tour at Bush N' Vine Farm, Carrigan Farms + on-Farm Dinner		
7:30 pm-9:30pm	Hospitality Room Open – Complimentary Refreshments and Snacks		

## Tuesday, November 17, 2015

6:00-9:00am	Full Cooked-to-Order Breakfast (Complimentary for Embassy Suites Guests) Hotel Lobby/Atrium		
7:00am-5pm	Registration Open – Foyer		
7:00-9am	Exhibit Hall Open – Coffee and light snacks		
9:00-10:00am	<b>General Session:</b> The Florida Response to Anthracnose and Fungicide Resistance <i>Dr. Natalia Perez, University of Florida</i> Concord F		
10:00-10:30am	Break in Exhibit Hall		
<b>Track</b>	<b>Production</b> Concord F	<b>Marketing</b> Concord J	<b>Around the Farm</b> Concord I
10:30-12:00pm Breakout Sessions	<b>Current Issues in Disease Management</b>  <i>Dr. Frank Louws</i> <i>Dr. Natalia Peres</i>	<b>Advanced Social Media for Growers</b>  <i>Dr. James Barnes</i> <i>Agricultural Economics</i> <i>Mississippi State University</i>	<b>Labor Issues and Regulations</b>  <i>Richard Blaylock,</i> <i>District Director, US Dept of Labor</i>  <b>Strawberry Crop Insurance Options</b> <i>Molly Lutton, RAFI</i>
12:15- 1:45pm	<b>LUNCH &amp; NCSA Annual Meeting:</b>  1. Presentation of scholarship winners 2. NC Strawberry Association Annual business meeting		
<b>Track</b>	<b>Production</b> Concord F	<b>Weather</b> Concord J	<b>Around the Farm</b> Concord I
2:00-3:15pm Breakout Session	<b>Benefits and Challenges of Growing Certified Organic Strawberries</b>  <i>Russ Vollmer (Vollmer Farms)</i> <i>Dr. Frank Louws (NCSU)</i> <i>Fred Miller (Hilltop Farms)</i>	<b>Row Cover Management</b>  <i>Dr. Barclay Poling</i>	<b>Weed Management &amp; Hands-on Demo</b>  <i>Dr. Katie Jennings</i>
3:15-3:30pm	Break in Exhibit Hall		
3:30-4:45pm Breakout Sessions	<b>New Varieties – Update on NCSU Breeding, plus Merced Variety Trial Results</b>  <i>Dr. Gina Fernandez</i> <i>Dr. Barclay Poling</i>	<b>Predicting Climate for the Next Season and the Next Century</b>  <i>Dr. Ryan Boyles</i> <i>State Climate Office</i>	<b>Your Success: Welcoming Visitors to the Farm.</b>  <i>Annie Baggett</i> <i>NCDA &amp; CS</i>
5:00-6:00pm	Social Hour and Live Auction to benefit Scholarship Fund Exhibit Hall		
5:30-7:30	Manager's Cocktail Reception/Light Snacks (Embassy Suites Guests) – Hotel Lobby		
7:00 pm	Dinner on Your Own		
7:30-9:30pm	Hospitality Room Open - Complimentary Refreshments and Light Snacks		

# Expo Agenda 2015

## Wednesday, November 18, 2015

6:00-9:00am	<b>Full Cooked-to-Order Breakfast</b> (Complimentary for Embassy Suites Guests) Hotel Lobby/Atrium		
7:00-9am	<b>Registration Open</b> - Foyer		
7-9am	<b>Exhibit Hall Open</b> – Coffee and light snacks		
9 -10am	<b>General Session:</b> Grower spotlight - Westmoreland Berry Farm with Kane Lloyd. Concord F.		
10:00-10:30am	<b>Break</b> in Exhibit Hall		
<b>Track</b>	<b>Production</b> Concord F	<b>Marketing</b> Concord J	<b>Around the Farm</b> Concord I
10:30-11:15am Breakout Sessions	<b>What's the 'Dirt' on Sustainable Soil Management Practices?</b>  <i>Amanda McWhirt, NCSU Crop Science</i>	<b>Managing the Farm Business with Good Record Keeping</b>  <i>Gary Bullen Extension Associate – Farm Management NCSU</i>	<b>Sprayer Calibration Demonstration</b>  <i>Mark Simpson Reddick Equipment</i>
11:20a-12:30 pm Breakout Sessions	<b>Panel Discussion: Managing Anthracnose, from Nursery to Production Field</b>  <i>Dr. Chuck Johnson Dr. Guido Schnabel Dr. Frank Louws</i>	<b>National Strawberry Sustainability Initiative: Achievements and Outcomes</b>  <i>Curt Rom (National Strawberry Sustainability Initiative)</i>	<b>GAPS Certification and Auditing: What Growers Need to Know</b>  <i>Ronnie Wynn and Vincent Wyche (NCDA&amp;CS)</i>
12:30pm	Breakdown and Departure		

## Accommodations & Travel

### ATTENTION: Book by October 30th to receive this special rate!!

Our host hotel this year is the Embassy Suites in Concord, NC. The group rate is \$139 and *includes a full breakfast* each morning. Here's how to book your reservation to receive this rate:

- Call hotel directly at (704) 455-8200 and speak to the reservations department, mention the Strawberry Expo, OR
- Use this link to get directly to reservations for the SE Strawberry Expo:

[http://embassysuites.hilton.com/en/es/groups/personalized/C/CLTCCES-SSE-20151115/index.jhtml?WT.mc\\_id=POG](http://embassysuites.hilton.com/en/es/groups/personalized/C/CLTCCES-SSE-20151115/index.jhtml?WT.mc_id=POG)

The Embassy Suites is conveniently located 1/4 mile from Interstate-85, just outside Charlotte at Exit 49 (Bruton Smith Blvd). The hotel features complimentary cooked-to-order breakfast, complimentary manager's special from 5:30-7:30pm daily, a business center, complimentary in-room high speed internet, fitness center and pool. Dining options at the hotel include Rocky River Grille, and Caffeinas Marketplace Cafe. Finally, the Embassy Suites offers access to Rocky River golf course and Spa Botanica.

### Silent Auction Donations

Our Silent Auction raises funds for the NCSA Scholarship Program. A total of \$8000 has been awarded to 9 students so far, including two \$1500 scholarships this year. Help us expand the scholarship program by donating to and bidding at the silent auction. Donations can be tools, supplies, services, excursions, etc. Please consider bringing a donation, and make a note on the registration sheet indicating any items you plan to bring. All donors will be fully acknowledged.

# 2015 Southeast Strawberry Expo Registration

❖ November 16-18, 2015 ❖

## CONTACT INFORMATION

Name(s) (for name tags): \_\_\_\_\_

Farm/Business: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Home Phone: \_\_\_\_\_

Cell Phone: \_\_\_\_\_

Farm/Work Phone: \_\_\_\_\_

Email: \_\_\_\_\_

Website: \_\_\_\_\_

Acres of strawberries grown in 2015: \_\_\_\_\_

I'd like my newsletters via:  Email  Mail

Bringing an item for the silent auction? Tell us here: \_\_\_\_\_

## PAYMENT INFORMATION

Please select payment method:

Check (payable to NC Strawberry Association or NCSA)

Visa  Mastercard  Discover

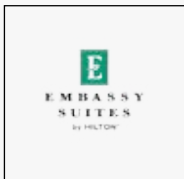
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## HOTEL INFORMATION

### Embassy Suites Charlotte-Concord

5400 John Q Hammons Dr NW, Concord, NC 28027



Hotel room at the group rate of \$139.00  
Rate includes 2-room Suite, Full cooked to  
order Breakfast Buffet and 2-Hour Evening-  
Cocktail Reception daily.

**- Deadline for hotel reservations is: Friday, October 30, 2015 -**

BOOK RESERVATIONS BY PHONE:

704-455-8200, ask for reservations department

Mention Group Code: SSE

BOOK ONLINE:

[http://embassysuites.hilton.com/en/es/groups/personalized/C/CLTCCES-SSE-20151115/index.jhtml?WT.mc\\_id=POG](http://embassysuites.hilton.com/en/es/groups/personalized/C/CLTCCES-SSE-20151115/index.jhtml?WT.mc_id=POG)

MAIL THIS FORM TO: NCSA, PO Box 543, Siler City, NC 27344  
FAX TO: 919-742-5259 EMAIL TO: [info@ncstrawberry.com](mailto:info@ncstrawberry.com)  
PHONE: 919-537-2287

## NCSA MEMBERSHIP

(good through November 2016 - you must be a member to attend expo)

TYPE	RATE	QUANTITY (one per farm)	TOTAL
In-State	\$100		\$
Out-of-State	\$170		\$
Student/Ext.	\$25		\$

## FULL CONFERENCE REGISTRATION

(includes all breakout sessions, Tuesday lunch, all breaks)

TYPE	RATE	QUANTITY	TOTAL
First Registrant	\$150		\$
Additional Person	\$125		\$
Student/Ext	\$100		\$
Child	\$75		\$

## TUESDAY ONLY (11/17)

(includes Tuesday breakout sessions, lunch, and breaks)

TYPE	RATE	QUANTITY	TOTAL
First Registrant	\$100		\$
Additional Person	\$85		\$
Student/Ext	\$60		\$
Child	\$50		\$

## WEDNESDAY ONLY (11/18)

(includes Wednesday breakout sessions and break)

TYPE	RATE	QUANTITY	TOTAL
First Registrant	\$70		\$
Additional Person	\$60		\$
Student/Ext	\$40		\$
Child	\$35		\$

## WORKSHOPS (11/16)

TYPE	RATE	QUANTITY	TOTAL
Intro to Plasticulture	\$100		\$
NC V-Credits	\$0		\$
Social Media	\$100		\$

## FARM TOUR (11/16)

TYPE	RATE	QUANTITY	TOTAL
On bus	\$80		\$
Own car	\$45		\$
Child	\$35		\$

Donation to Scholarship Fund: \$ \_\_\_\_\_

## TOTAL AMOUNT DUE:

\*Please add totals from all columns\* \$ \_\_\_\_\_



# Thank You To Our 2015 Sponsors!!

We still have room for sponsors and exhibitors. If your company would like to participate in this year's expo, please visit our website at [www.ncstrawberry.com](http://www.ncstrawberry.com) for more information!

The background of the advertisement is a photograph of a strawberry field. The plants are green and growing in rows, with black plastic mulch visible between the rows. The field extends into the distance under a clear sky.

*It's time to order your plants for next year's crop.*

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[jwarenda@freshpik.com](mailto:jwarenda@freshpik.com)

A light blue, multi-pointed starburst graphic with a red outline, containing the text '2015 EXPO SPONSOR!' in a black, sans-serif font.

# Getting the Most Out Of Expo: Workshops 2015

## Social Media and Facebook Basics

Monday, November 16 ♦ 9am-12pm

This workshop will cover many aspects of Social Media. Jenny will discuss basic topics like uses for social media and setting up your own social media accounts, then move on to advanced topics as time allows.

This workshop will explore Facebook in particular, and participants will learn how it can be useful for growers. You will see different types of posts and learn how to tie your Social Media presence back to your own website. You are encouraged to bring your laptop with you, so you can get started with social media that day!

Please bring your questions and ideas relating to social media and/or your online presence. After some basics, there will be plenty of time to explore different ways that social media is used and answer questions. The fee for this workshop is \$100.

### About the Speaker:

Jenny Prevatte is the owner of Twilite C S, and has been in the Marketing/Graphic/Internet industries since the early 90s. She is the daughter of NC tobacco/chicken farmers, and mechanics, and has a degree in Mechanical Engineering. She is now a Marketing/Strategic Planning consultant and self-professed “computer IT-IS, web and graphic design, and social media nerd.”



Jenny works with small businesses, trade associations, and nonprofit organizations. Since Social Media has become an integral part of marketing, she helps these businesses improve their online brand by creating and maintaining a good “Internet Presence”. She brings all your internet pieces together into a cohesive look and feel: website, social media, SEO, electronic communications, online directories, graphics, etc.

## Getting Started in Plasticulture

Monday, November 16 ♦ 9am-12pm

Getting the most out of your large plasticulture investment is what this workshop is all about! This half-day session is held each year, and focuses on practical advice from experienced growers. As an added bonus this year, each attendee will receive a fully revised 2015 edition of the Strawberry Plasticulture Manual (\$70 value!).

James Kenan is a veteran grower who has been raising strawberries since 1983 in Greensboro, NC. (<http://www.berniesberries.com/>) He will be joined by retired NC Regional Agronomist David Dycus, who has assisted many farmers with strawberry growing issues over the years. Together they will touch on all aspects of planting and

maintaining a strawberry crop, from fumigation and bed preparation to pest and disease management, irrigation, row covers, nutrition and more. This workshop will serve as a great pre-conference foundation before participants dive more deeply into these topics during breakout sessions.

This is a must for anyone new to growing strawberries or thinking about growing strawberries for the first time. The fee for this workshop is \$100, including the Plasticulture Manual.



James Kenan



David Dycus



## “V-Credit” NC Pesticide Applicators Workshop Monday, 9am-12pm

This workshop constitutes a safety training for Private Pesticide Applicators in the state of North Carolina. This is a “V” Credit for pesticide applicators (or their employees), using restricted use pesticides for the purpose of growing an agricultural commodity on lands they either own or rent. This session will be led by John Ivey, Guilford County NC Extension Agent. Questions can be directed to him at [john\\_ivey@ncsu.edu](mailto:john_ivey@ncsu.edu). For more information on pesticide licensing in North Carolina, please visit: <http://ncagr.gov/SPCAP/pesticides/index.htm>. This is a free workshop.

Don't get left out in the cold



During the winter of 2011, uncovered crops (left) are a complete loss, rows covered with AgroFabric (right) survive six hours below freezing (25° F).

# Get ready for the Big Chill

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# Strawberries and Pollinator Health: Best Practices for Growers

Grace Tuschak, Education Outreach Coordinator, NCSA

There has been a lot of attention recently on pollinator health, and it is easy to see why: approximately \$15 billion annually is attributed to the value of food crop pollination. Pollinators are critical to production of many fruits, vegetables, and nuts; it is estimated that one out of every three bites of food we eat is directly dependent on pollinator activity. Pollinators (not just honeybees, but native insects like bumblebees, moths, wasps, butterflies, as well as birds and bats) are important economically in order to produce good quality fruit. Strawberries that are unevenly pollinated can result in imperfect fruit, and it is important for growers to know what they can do to protect pollinators of all kinds. If you are a pesticide applicator, you are one of the most important pieces of the puzzle when it comes to ensuring pollinator survival.

Pollinator poisoning occurs in a number of ways, some of which may be less obvious. Here are the most common causes of pollinator poisoning:

1. Drift of pesticides onto adjoining crops or plants that are in bloom.
2. Contamination of flowering ground cover plants when sprayed with pesticides.
3. Pesticide residues being picked up by foraging pollinators and taken back to the nest/colony.
4. Pollinators drinking or touching contaminated water sources or dew on recently treated plants.

## *What can growers do?*

As a grower and/or pesticide applicator, here is some information about what you can do to protect pollinators on your farm:

1) Read labels!! You are legally responsible for proper application of pesticides according to the label, so never follow someone else's interpretation of it. Don't assume that all bee cautionary statements are the

same – there are different levels of bee toxicity, which require different precautions. The main difference in labeling is the distinction between use when bees are “visiting” vs. “actively visiting” the treatment area.

Some products have Extended Residual Toxicity (ERT), meaning that pollinators can be poisoned from residues after the spray application, and not just from direct exposure. These ERT products are denoted by the label “*Do not apply to blooming crops or weeds if bees are visiting the treatment area.*” Other products do not have ERT, and these are denoted by the label “*Do not apply to blooming crops or weeds if bees are actively visiting the treatment area*” – meaning that if bees are in the area, hold off on spraying until you can avoid direct exposure. Spraying these products late in the day or during cooler temperatures when bees are not as active can be helpful. As always, avoid sprayer drift and spraying while it is windy out. Lastly, especially when using ERT products, avoid applying when lower temperatures could cause dew formation. Moisture can re-wet pesticides and cause increased pollinator exposure.

See Table 1 on next page for more details on levels of toxicity and their required precautions.

## *Other pollinator health practices*

Encouraging pollinator health is just one more reason to practicing Integrated Pest Management. Consider using insecticide only when absolutely necessary and increase reliance on cultural practices and long-term pest prevention strategies. Another very important step in ensuring that your farm is pollinator friendly is to establish good relationships with local beekeepers, especially if you rent beehives for pollination. Most bee poisoning incidents are not due to malicious intent, but rather to lack of information. Beekeepers can help growers modify their pest control programs so that little to no poisoning occurs. These alliances can help both parties adapt their management practices to ensure healthy pollination.

# Pollinator Health: Cont'd

Growers who want to take pollinator health a step further should consider planting a pollinator habitat. Providing a safe haven of pollinator forage and habitat can help mitigate the effects of pesticide exposure. Consider leaving some areas “wild” or plant flowering groundcover. Here you can find more information on what to plant for pollinator habitat and forage in the Southeast: <http://pollinator.org/PDFs/Guides/SoutheastMixedForestrx5FINAL.pdf>.

## Remember native pollinators, too

Honey bees are exceedingly important to commercial agriculture, but it is critical to remember that other native pollinators also play a crucial role in crop production. Without a marked nesting site, it is easy for wild pollinator poisoning to go unnoticed. Many native pollinators commonly live in fencerows and other nearby wild areas so avoid spraying these areas if possible. It is also well to remember that these pollinators may be present even when honeybees are not, or after commercial colonies have been removed from the area. The impact of agricultural pesticides on native pollinators like bumblebees is not well understood, and more research in this area is needed. For example, bumblebees exhibit many of the same symptoms of

pesticide poisoning that honeybees do, but toxicity of agricultural chemicals on wild pollinators like these is not fully known. Many native pollinator populations are on the decline, and some are now extinct. ♦



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**Table 1. Honey bee acute toxicity groups and precautionary statements (from EPA)**

Toxicity Group	Precautionary Statement if Extended Residual Toxicity is Displayed	Precautionary Statement if Extended Residual Toxicity is not Displayed
<b>I</b> Product contains any active ingredient with an acute LD50 of 2 micrograms/bee or less	This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds if bees are visiting the treatment area.	Product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting treatment area.
<b>II</b> Product contains any active ingredient(s) with acute LD50 of greater than 2 micrograms/bee but less than 11 micrograms/bee.	This product is toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product if bees are visiting the treatment area.	This product is toxic to bees exposed to direct treatment. Do not apply this product while bees are actively visiting the treatment area.
<b>III</b> All others.	No bee caution required.	No bee caution required.

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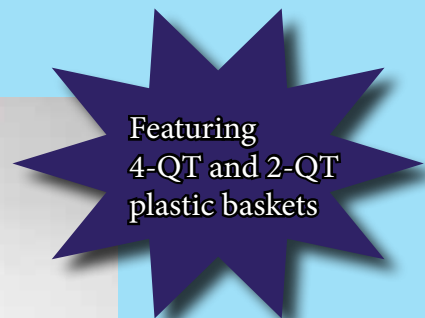
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