

# Field Crops Newsletter

Granville and Person County  
Mikayla Graham

FEBRUARY 2022

## Greenhouse Preparation Tips

BE SUCCESSFUL PRODUCING TRANSPLANTS



Transplants about to go into the field. *Photo by Mikayla Graham.*

Time is fast approaching to begin seeding and caring for tobacco transplants in the greenhouse. Take note of these tips from NC State Extension for successful transplant production:

- **Keep clean!** – steam all trays for 30 minutes at 160 to 175° F, hand remove weeds prior to seeding, keep free of debris, and rinse mower with 50% household bleach prior to each clipping.
- **Optimal timing!** – seed trays when the five-day forecast predicts bright, sunny days.
- **Get a water analysis!** – take a water sample in a 16 fl. oz. water bottle and send to the NCDA&CS or drop off at the extension office to monitor pH, bicarbonate, and trace elements (see <https://www.ncagr.gov/agronomi/uysrsln.htm>).
- **Temperature control!** – fluctuate day temperature (86° F) and night (68° F) to break seed dormancy, then nighttime temperature can be reduced to 55-60° F after stand establishment.
- **Nutrient management!**
  - Nitrogen (N) – 100-150 ppm 7-10 days AFTER seeding, additional 100-125 ppm 4 weeks after seeding (if using injector, maintain 125 ppm N).

### INSIDE

Greenhouse Preparation Tips

NC Hemp License Update

Upcoming GAP Training

Upcoming Events

This newsletter is designed to give you up to date information on crops from NC State University and other sources. For more information:

### Contact

#### PERSON COUNTY

304 S Morgan Street  
Room 123  
Roxboro, NC 27573

PH: 336.599.1195  
[person.ces.ncsu.edu](mailto:person.ces.ncsu.edu)

#### GRANVILLE COUNTY

124 Oxford Outer Loop  
Oxford, NC 27565

PH: 919.599.1195  
[granville.ces.ncsu.edu](mailto:granville.ces.ncsu.edu)

MIKAYLA GRAHAM

[mikayla\\_graham@ncsu.edu](mailto:mikayla_graham@ncsu.edu)

# Greenhouse Preparation Tips

## Continued...

- **Nutrient Management!** (continued)
  - Phosphorus (P) and Potassium (K) – use 2-1-2 or 3-1-3 ratio fertilizer for both P and K (examples include 20-10-20 and 16-5-16).
  - Calcium (Ca) – sufficient amount should be included in the fertilizer, but add 5 oz Gypsum/100 gal float water if it is not.
  - Magnesium (Mg) and Sulfur (S) – sufficient Mg and S are in most standard fertilizers.
  - Boron (B). – use a fertilizer with 0.02% B to achieve float bed concentration 1-2 ppm. If less than 0.5 ppm, add NO MORE than 0.2 oz Borax/100 gal float water. **WATCH OUT FOR TOXICITY AT >2 PPM CONCENTRATION!**
- **Prevent disease!** – dispose of diseased trays and maintain proper ventilation.
  - Pythium Root Rot – preventative rate of 1.0 fl. oz./100 gal or curative rate of 1.4 fl. oz./100 gal float water of Terramaster 4EC between 2 and 8 weeks after seeding
  - Target Spot – 0.14 fl. oz/1,000 sq. ft. Quadris F at (AT LEAST) 5 gal water/1,000 sq. ft.
- **Manage seedling growth!** – Clip seedlings when plant height is 2 to 2.5 inches above the tray or 1.5 inches above the bud, and clip at least 5 times to increase usable plants.
- **Control insects!** – control aphids, flea beetles, and thrips using:
  - Orthene at 0.375 oz in 3 gallons of water/1,000 sq ft.
  - Admire Pro at 0.6 – 0.8 fl. oz. per 1,000 plants (check formulation)
  - Platinum at 0.8 fl. oz. per 1,000 plants (check formulation)
  - Admire Pro and Platinum should be applied overtop of transplants then



Tobacco harvest in Person County. *Picture by Mikayla Graham*

rinsed off immediately, and seedlings should be transplanted within 3-5 days.

Also, here are some helpful formulas:

- **Gallons of water in a float bed** = length (ft) X width (ft) X depth (ft) X 7.48 gallons per cubic foot
- **Oz. of fertilizer per 100 gallons** = desired ppm of nutrient / (% concentration in fertilizer X 0.75)

Information for this article is from the Tobacco Greenhouse Production Guide (<https://tobacco.ces.ncsu.edu/wp-content/uploads/2017/02/Greenhouse-Production-Poster.pdf?fwd=no>) and “Transplant Production – Four Keys to Successful Transplant Production” (<https://tobacco.ces.ncsu.edu/tobacco-transplant-production-four-keys/>)

For more information, please visit the Tobacco Producers Information Portal on the NC State Extension website ([tobacco.ces.ncsu.edu/](https://tobacco.ces.ncsu.edu/)).



## All NC Hemp Growers Must Be Licensed Through USDA

The North Carolina Industrial Hemp Pilot Program overseen by the NCDA&CS ended December 31<sup>st</sup> 2021. If you have a NC Industrial Hemp Commission issued hemp growers license, it is no longer valid.

The differences between the USDA hemp production license and the NC hemp license are that:

- growers are now required to submit an FBI Identity History Summary (criminal background check) and fingerprinting
- a USDA certified sampling agent must be selected to come and collect compliance samples
- growers must pay for the sampling agent and lab testing
- growers must register with their local Farm Service Agency (FSA) and report acreage each year.

Read about the National Hemp Program here: <https://www.ams.usda.gov/rules-regulations/hemp>

And apply for a USDA hemp production license using the Hemp eManagement Platform: <https://hemp.ams.usda.gov/s/>

Read more at: <http://go.ncsu.edu/readext?840354>



Industrial Hemp. Photo from <https://hemp.ces.ncsu.edu/2022/01/all-nc-hemp-growers-must-now-be-licensed-through-usda/>



Tobacco. Photo by Mikayla Graham

## Annual GAP Training

### Training Locations and Dates

Annual GAP Training was not done in cooperation with NC State Tobacco Production meetings. However, two opportunities to complete your GAP annual training requirement are coming up. The first will be at the Farm Show in Raleigh, NC on February 4<sup>th</sup> at 1:30 PM. This will take place in the Holshouser Building on the NC Fairgrounds. The next will take place in South Boston, VA on February 8<sup>th</sup> at 10:00 AM. This will take place at the TJM Community Center (1011 Huell Mathews Highway). You can register for either of these training opportunities at the GAP Connections website ([gapconnections.com](http://gapconnections.com)).

## Join the Granville/Person County Field Crop Extension Group on Facebook!

Are you on Facebook? If you are, please join the Granville/Person County Field Crop Extension Group! I will be updating this group with information from NC State, event updates, and more! Go to <https://www.facebook.com/groups/persongranvilleextension/>



# UPCOMING EVENTS



## 2022 Regional Grain Production Meeting

Monday, February 7<sup>th</sup>, 2022 @ 4PM

- In-person at the Vance County Regional Farmers Market
- Speakers: Scott Tilley, and Drs. Ron Heiniger, Rachel Vann, and Wesley Everman
- Register at <https://go.ncsu.edu/2022regionalgrainmeeting>
- At least 1 hour N, D, O, and X NCDA&CS credit offered

## 2022 Piedmont Grain Production Meeting

Wednesday, March 2<sup>nd</sup>, 2022 @ 9AM

- Virtual via ZOOM with in person option at the Person County Extension Office
- Speakers: Drs. Ron Heiniger, Rachel Vann, Angela Post and Charlie Cahoon
- Register at <https://go.ncsu.edu/2022piedmontgrainmeeting>

## V Pesticide Credits (2 hours each)

February 15<sup>th</sup> @ 10AM AND

February 22<sup>nd</sup> @ 6:30PM

- In-person at 2 LOCATIONS:
  - Person County Extension Office
  - Granville County Extension Office
- Registration Required (336-599-1195)

## X Credits (2 hours)

March 15<sup>th</sup> @ 9AM

- In-person at 2 LOCATIONS:
  - Person County Public Library
  - Granville County Expo Center
- Registration Required (336-599-1195)

## Auxin Training

Offered via ZOOM on the dates and times in the chart below.

- **Zoom Registration Link:** [go.ncsu.edu/2022\\_auxin\\_training](https://go.ncsu.edu/2022_auxin_training)
- **Zoom Passcode:** 028935
- For more information look at <https://granville.ces.ncsu.edu/field-crops-program/pesticide-continuing-education-credits/>

Training will also be IN PERSON on March 1<sup>st</sup>

- In-person at 2 LOCATIONS:
  - Person County Extension Office
  - Granville County Extension Office
- Registration Required (336-599-1195)

	Date	Time	Day of week
1	February 17	8:30 AM	Thursday
2	March 1	8:30 AM	Tuesday
3	March 15	8:30 AM	Tuesday
4	March 30	8:30 AM	Wednesday

## ABOUT N.C. COOPERATIVE EXTENSION

North Carolina Cooperative Extension is a strategic partnership of NC State Extension, The Cooperative Extension Program at N.C. A&T State University, USDA-NIFA, and 101 local governments statewide. Extension professionals in all 100 counties and the Eastern Band of Cherokee translate research-based education from our state's land-grant universities, NC State and N.C. A&T, into everyday solutions. Extension specializes in agriculture, youth, communities, food, health and the environment by responding to local needs.

NC State University and N.C. A&T State University are collectively committed to positive action to secure equal opportunity and prohibit discrimination and harassment regardless of age, color, disability, family and marital status, gender identity, genetic information, national origin, political beliefs, race, religion, sex (including pregnancy), sexual orientation and veteran status. NC State, N.C. A&T, U.S. Department of Agriculture, and local governments cooperating.

In compliance with the Americans with Disabilities act, N.C. Cooperative Extension or NC State University will honor requests for reasonable accommodations made by individuals with disabilities. Please direct accommodation requests to Mikayla Graham, [Mikayla\\_graham@ncsu.edu](mailto:Mikayla_graham@ncsu.edu), 9195031350 or 336-599-1195. Requests can be served more effectively if notice is provided at least 10 days before the event.