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## HYDE COUNTY EXTENSION

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### Nematodes: A Growing Issue in Hyde County

Every year I see nematode issues in soybeans. This year was no exception. Because we had a cooler spring and the corn crop was slow growing, I saw something I have never seen before, major nematode injury in both field corn and sweet corn.

I worked with a grower to identify a corn field with nematode injury in Swan Quarter. We decided to implement a nematicide test with the product Chitocide. Nematode samples were taken pre-application on June 16th and the product was applied at the recommended rate later that day. We had three untreated control plots and three treated plots. Nematode samples were taken again on August 23rd. Dr. Adrienne Gorny, Nematology Extension Specialist, concluded that there were no statistical differences between the treated and untreated plots when it came to the root knot, lesion, stubby root, and spiral nematode counts.

Many growers in the county have struggled with nematodes, with root knot nematodes being the most prevalent. So what do we do?! Now is the time to take nematode samples if you suspect that you have nematodes. You want to take the samples before Thanksgiving, as they move deeper into the soil profile as the weather cools down. Sampling supplies are available at the Extension office.

If you know you have nematodes, be sure not to spread them! Plow affected fields last and wash your tillage equipment!

There is some evidence that mustard cover crops can help control nematodes when used as a "bio-fumigant". Mustard can be planted after harvest, let it grow, mow, and incorporate it into the soil. As the plant tissue breaks down, it produces chemical compounds that are toxic to nematodes. The more biomass you can incorporate and the finer you mow it the better. Soil moisture levels can affect the efficacy of this technique. One study noted a failure of this technique when the soil was too dry. Some mustard varieties can actually be a host to certain types of nematodes and the control is limited to the depth that the biomass is incorporated. There may be some phytotoxic effects from the mustard crop to a crop planted immediately afterward. If you try this in the fall, there should not be any issues in a spring planted crop.

So what about seed treatments or resistant varieties?! Extension has tested a few nematicide seed treatments in the central part of the state. Unfortunately, they didn't hold up well longer in the season, or at higher nematode pressures. Root knot nematode resistant varieties are mostly MG 5-6 with fewer varieties to choose from in MG 3-4. Soybean cyst resistant varieties are mostly MG 1-3. Just because a variety is "nematode resistant" doesn't necessarily mean it is resistant to the types of nematodes you have. This is why it is important to take nematode samples to know you have!

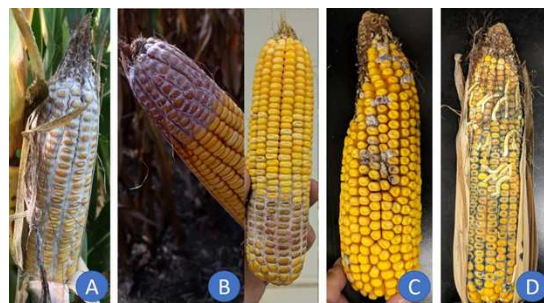


# BLACKLAND BULLETIN

## Corn Ear Rots

Several growers in the county had damage in their corn crop from ear rots. The most prevalent pathogen seems to be diplodia ear rot. Diplodia favors moderate temperatures and wet weather during silking. Diplodia is characterized by white stringy growth. Other pathogens that have been seen in the area are fusarium (white to purple, starburst pattern), penicillium/trichoderma (green), and gibberella (pink); if you think your corn was affected by these pathogens do not feed it to personal livestock or wildlife as it can make them sick.

Dr. Daisy Ahumada, NCSU Extension Plant Pathologist says the management of corn ear rots relies heavily on cultural practices that reduce inoculum. After harvesting your corn, till corn residue as deep into the soil as possible. Burning fields is not an effective control method and if used, should be combined with tillage. Fungi that cause ear rots may move up to several hundred yards in windblown rain so it is important to till in the residue to prevent the spread to nearby fields. Dr. Ahumada also said that cleaning equipment after or before use is a good practice for managing diseases. Removing soil (and spores) will help mitigate the spread of the pathogen. If possible, rotate away from corn for a minimum of two years.



Diplodia (A), Gibberella (B), Fusarium (C) and Trichoderma ear rots of corn

Photo from Ohio State University Extension.

Studies on fungicide use for corn ear rots have shown inconsistent results and are not recommended. If you have fields affected by diplodia or other ear rot, harvest them as soon as possible as the fungi will continue to grow and increase the risk of contamination. Most ear rot fungi will continue to grow until the grain is less than 15% moisture.

For more information on ear rots visit: [go.ncsu.edu/earrots](http://go.ncsu.edu/earrots).

## 2023 Blackland Farm Managers Tour

Approximately 550 people attended this year's Blackland Tour at Middle Creek Farms in Engelhard. Thank you to Dawson & Bethany Pugh and their family for hosting the tour! The Middle Creek Farms crew was incredible and worked so hard to make sure the event was a success. The work that Extension does would not be possible if it wasn't for the great cooperators that we work with. Be sure to attend the winter meetings to learn about the results of this year's research studies!



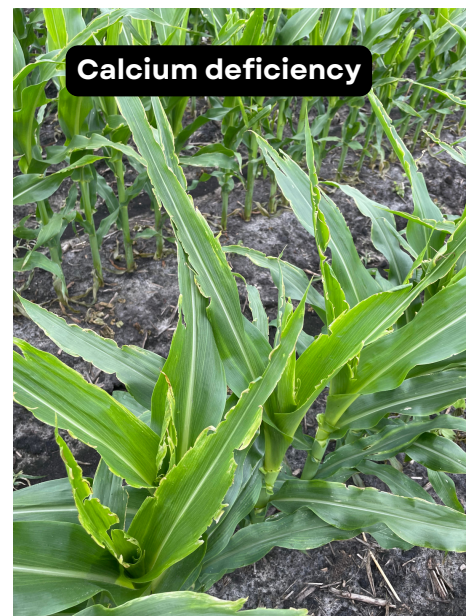
# BLACKLAND BULLETIN

## Flooding Duck Impoundments


I have started to receive calls about checking water salinity before folks turn on their pumps. I just wanted to take a minute and encourage you to have your water tested, even if it's not coming from a source that you would typically be concerned about saltwater intrusion. This summer, I sampled a well in Fairfield that has been used for over a decade to flood a duck impoundment. The water quality of the sample was poor due to not just sodium, but high alkalinity, and high pH. The water caused the soil pH to raise to 6.7 and the corn plants were deficient in calcium.

Hyde County Extension has a salinity meter that can be checked out. I have field tested this meter next to my very expensive meter and it works very well. If you need to continuously monitor your water, I suggest purchasing a Hanna Instruments Marine Salinity Tester (HI98319). They are affordable (about \$80) and accurate.

For a more in-depth analysis, you can send a water sample to NCDA for \$5/sample. Sampling instructions as well as the sample forms can be found by searching "NCDA solution analysis". Use the sample codes for general irrigation (IW) and surface water (QS) and write "include full irrigation analysis" in the comments. The current turn around time is 3 business days.



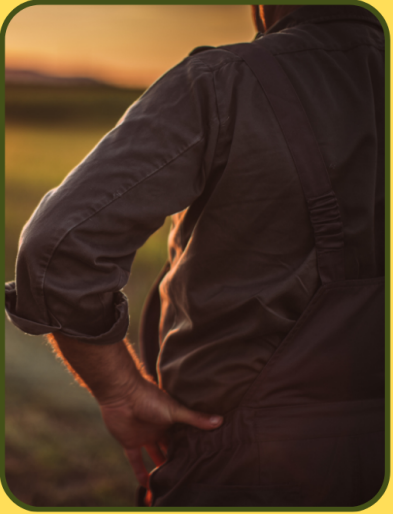
**Hanna  
Instruments  
Marine Salinity  
Tester (HI98319)**



Are you a farmer, farm worker, or farm family member?

Did you know that the NC Farm Stress Network has FREE programs available for YOU?

Visit [ncfarmstress.org](http://ncfarmstress.org) or contact Andrea Gibbs for more information!



## Remembering Mr. Wade Hubers



This edition of the Blackland Bulletin is dedicated to the late Wade Hubers. He was a member of the Blackland Farm Managers Association and was instrumental in the development of the cotton gin, Rose Acres Farm, & the soybean crush plant. Mr. Wade knew that farmers had to work together to be successful in the Blacklands. We are thankful for the hard work he put in to help make the Blacklands what it is today!

# BLACKLAND BULLETIN

## 2023 Corn Hybrid Test

The 2023 Hyde County corn hybrid test was located at the Blackland Farm Managers Tour site in Engelhard. The test was planted on 30" rows on May 12th at a plant population of 33,000. 20 gallons of 10-27-0 was applied in a 3x2x2 band along with 15 gal/ac of 30% UAN for a total of 70 lbs of nitrogen at planting. At layby (June 26) another 180 lb/ac of 30% UAN was applied. This trial was randomized with four replications on a Hydeland silt loam. This site received 32.4" of rain from planting to harvest.

Thank you to Middle Creek Farms for the donating land, equipment, and other resources required to implement these trials. We also would like to thank Dr. Ron Heiniger and Ben Winslow for planting and harvesting this test as well as the statistical analysis of the data.

### Medium Test (110-115 RM) Results

Company/Brand	Hybrid	Yield (bu/ac)
Agratech (Mixon Seed Service)	Agratech 711VT2P	241.92
Dekalb	DKC 62-70	240.22
CNI/Integra	Integra 6493 VT2P	238.14
Gateway Seed	Gateway 1913TRE	237.99
AgVenture	AV6010AM	237.73
NK Syngenta	NK1480-DV	236.69
Pioneer	P1289YHR	235.66
AgriGold	643-52VT2P	230.76
AXIS	AXIS 65W75	230.36
FS INVISION	FS INVISION 6627T	229.57
Croplan	Croplan 5497VT2P	229.51
DynaGro	D54VC34	227.61
Revere	RV1307TC	226.78
Augusta	4463VT2Pro C1250	223.18

### Full Test (116+ RM) Results

Company/Brand	Hybrid	Yield (bu/ac)
Dekalb	DKC68-35	264.65
Croplan	Croplan 5893VT2PTRE	252.70
DynaGro	D58TC94	246.49
Pioneer	P1608YHR	238.35
AgVenture	AV3514AM	237.44
Augusta	7168 VT2Pro C1250	236.59
AXIS	AXIS 66Z71	234.18
Revere	RV1627TC	232.47
FS INVISION	FS INVISION 6818V	232.19
Gateway	Gateway 2716VT2P	230.10
AgriGold	647-79VT2P	229.18
CNI/Integra	Integra 6720 VT2P	226.95
NK Syngenta	NK1755-DV	222.11

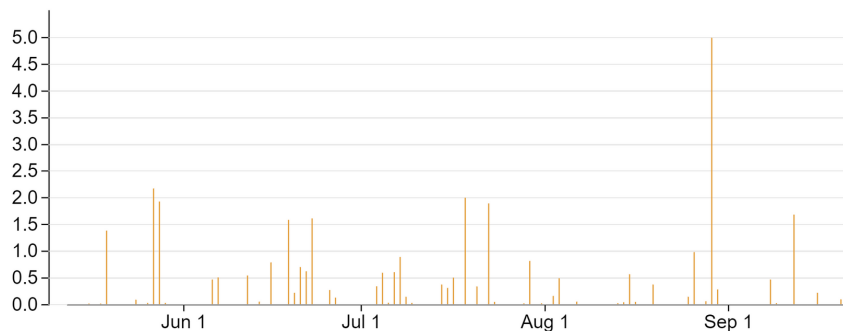
LSD ( $p < 0.05$ )

LSD ( $p < 0.05$ )

Disclaimer: The use of brand names does not imply endorsement or criticism of projects used in this test or ones not mentioned.

### Rainfall Data

Daily Amounts of Precip



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