

Field Crops Newsletter – Research Edition

Granville and Person County
Mikayla Berryhill

DECEMBER 2023

A Note from Your Agent:

I hope you and your families had a wonderful Thanksgiving and have a Merry Christmas later this month! As your harvest season comes to a close, so do my research plots. I have put a lot of my effort into providing local research trials so that you have the best information for making decisions on your operation. So, I decided to make my last newsletter of the year a “research edition” to summarize the data from the past year. This is a collection of statewide, regional, and local research trials.

This newsletter contains **summaries** of the research and data with some major take-away points. Full reports containing more specific information about these trials and their data can be found on the Person County Extension Website (person.ces.ncsu.edu/field-crops-program-2/field-crop-research/). If you would like to request a printout of one or more of these resources, please let me know and I am happy to do so. Please also take note of the upcoming events below.

Happy Holidays!

Upcoming Events:

Old Belt Regional Tobacco GAP/Production Meeting

JANUARY 10 @8AM

Caswell County Civic Center
536 Main St., Yanceyville, NC

Registration:

OldBeltRegionalTobaccoMeeting.eventbrite.com

Grain Marketing, Hedging, and Options Workshop

FEBRUARY 7 @10AM

Person County Office Building
304 S. Morgan Street, Roxboro, NC

Registration:

go.ncsu.edu/GrainMarketingWorkshop24

Upper Middle Belt Tobacco GAP Meeting

JANUARY 22 @9AM

Granville County Convention & Expo
Center

4185 US-15, Oxford, NC

Registration:

go.ncsu.edu/UpperMiddleBeltTobacco2024

NE Piedmont Grain Production Meeting

FEBRUARY 20 @9:30AM

Vance County Regional Farmers Market
210 Southpark Dr., Henderson, NC

Registration:

go.ncsu.edu/NEPiedmontGrainMeeting2024

Upper Piedmont Grain Meeting

FEBRUARY 22 @8:30AM

Piedmont Community College
1715 College Drive (S Building),
Roxboro, NC

Registration:

go.ncsu.edu/UpperPiedmontGrain2024

Respirator Fit Testing

JANUARY 29TH

N.C. Cooperative Extension –
Granville County Center (125 Oxford
Outer Loop, Oxford, NC)

Contact me for more information.

INSIDE

NC STATE TRIALS

NC State Official Variety Trials

Water Resiliency Trial

Corn Bt Trial

COUNTY/LOCAL TRIALS

Intensive Management Corn Trial

Soybean In-Furrow Trial

Regional Corn Variety Trial

Wheat Fungicide Trial

Contact

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NC State OVT (Official Variety Trial) Results

To quickly summarize all of the OVT results for most important crops in our area (tobacco, corn, and soybeans), below are some simple charts displaying the highest yielding varieties for each crop either from **statewide (tobacco)** or **region wide (corn and soybean)** data. This is a limited demonstration of the datasets, and more information can be found at the links below the charts, or by contacting me!

TOBACCO

North Carolina Tobacco Official Variety Test 2023 - Kinston and Rocky Mount, 2023

| Variety | Yield (lb/a) | Value (\$/a) | Price (\$/cwt) | Grade Index | Days to Flower | Leaves per Plant | Plant Height (in.) | Leaf Spacing (in.) |
|-----------|--------------|--------------|----------------|-------------|----------------|------------------|--------------------|--------------------|
| CC143 | 2662 | 4079 | 153.32 | 77 | 63 | 19.5 | 37 | 1.89 |
| CC145 | 2459 | 3600 | 146.75 | 72 | 64 | 18.4 | 38 | 2.05 |
| CC603 | 2415 | 3625 | 150.78 | 74 | 65 | 19.5 | 36 | 1.84 |
| CC607 | 2621 | 3997 | 151.38 | 73 | 63 | 19.1 | 37 | 1.92 |
| CC700 | 2524 | 3722 | 146.75 | 72 | 61 | 17.9 | 36 | 2.00 |
| CC1063 | 2304 | 3610 | 157.00 | 76 | 63 | 18.2 | 37 | 2.05 |
| GF318 | 2497 | 3755 | 150.88 | 74 | 61 | 18.5 | 36 | 1.94 |
| GL26H | 2409 | 3609 | 148.80 | 73 | 62 | 18.2 | 37 | 2.03 |
| GL365 | 2549 | 3961 | 155.50 | 77 | 68 | 19.9 | 36 | 1.79 |
| GL386 | 2596 | 4039 | 155.12 | 76 | 62 | 18.5 | 37 | 2.02 |
| GL395 | 2417 | 3547 | 146.48 | 72 | 60 | 18.5 | 36 | 1.95 |
| K326 | 2700 | 4283 | 159.12 | 77 | 60 | 19.2 | 35 | 1.81 |
| K346 | 2268 | 3615 | 159.60 | 77 | 65 | 18.2 | 36 | 1.95 |
| NC196 | 2465 | 3820 | 154.75 | 76 | 67 | 19.1 | 37 | 1.93 |
| NC299 | 2487 | 3741 | 150.42 | 75 | 64 | 18.5 | 36 | 1.94 |
| NC606 | 2534 | 3918 | 154.40 | 75 | 63 | 17.7 | 36 | 2.03 |
| NC960 | 2814 | 4457 | 158.15 | 76 | 68 | 19.6 | 38 | 1.96 |
| NC986 | 2929 | 4333 | 146.72 | 72 | 65 | 19.2 | 37 | 1.94 |
| NC987 | 2881 | 4488 | 155.17 | 76 | 62 | 19.3 | 37 | 1.93 |
| NC989 | 2750 | 4058 | 147.60 | 72 | 63 | 18.9 | 34 | 1.82 |
| NC991 | 2961 | 4306 | 144.52 | 71 | 62 | 18.6 | 37 | 1.97 |
| NC993 | 2964 | 4554 | 153.38 | 73 | 66 | 19.5 | 36 | 1.85 |
| NC994 | 2835 | 4082 | 143.00 | 72 | 65 | 18.9 | 37 | 1.95 |
| NC996 | 3048 | 4629 | 151.43 | 75 | 62 | 18.8 | 39 | 2.06 |
| NC1006 | 2916 | 4329 | 148.07 | 72 | 63 | 18.6 | 39 | 2.09 |
| NC1007 | 2968 | 4581 | 154.18 | 75 | 63 | 17.9 | 39 | 2.18 |
| NC1226 | 2539 | 3815 | 150.15 | 75 | 65 | 19.3 | 35 | 1.83 |
| PVH1600 | 2699 | 4229 | 156.47 | 76 | 63 | 19.1 | 37 | 1.94 |
| PVH1920 | 2513 | 4035 | 160.53 | 79 | 67 | 20.0 | 37 | 1.84 |
| PVH1940 | 2342 | 3815 | 162.93 | 78 | 61 | 18.1 | 37 | 2.01 |
| PVH1980 | 2449 | 3796 | 154.92 | 77 | 64 | 18.1 | 34 | 1.89 |
| PVH2233 | 2929 | 4371 | 149.47 | 74 | 67 | 20.4 | 38 | 1.88 |
| PVH2254 | 2699 | 4057 | 149.85 | 74 | 62 | 18.5 | 38 | 2.03 |
| PVH2310 | 2510 | 3986 | 164.73 | 78 | 61 | 17.4 | 37 | 2.11 |
| PVH2343 | 2737 | 4131 | 150.32 | 73 | 62 | 19.1 | 38 | 1.98 |
| PXH53 | 2637 | 3891 | 147.92 | 72 | 63 | 19.1 | 38 | 1.98 |
| RJREX608 | 2251 | 3543 | 156.23 | 75 | 70 | 19.3 | 35 | 1.81 |
| RJREX609 | 2363 | 3473 | 147.25 | 73 | 63 | 18.0 | 37 | 2.05 |
| Test Avg. | 2622 | 3997 | 152.47 | 75 | 64 | 18.81 | 37 | 1.95 |

NOTE – The Granville County site was destroyed by hail, so it is not included in the 2023 dataset. The full dataset with leaf chemistry will be available on the tobacco portal and in the tobacco books soon.

CORN**Above Average Piedmont (Person, Surry, and Union) - Medium Hybrids (2023)**

| Company/Brand | Hybrid | Trait | Relative Maturity | Yield (bu/a) | Test Weight (lb/bu) | % of Trial Mean | Top Yield Group % |
|-----------------------------|------------------|-----------------|-------------------|--------------|---------------------|-----------------|-------------------|
| Seed Consultants | SC1112AM | AM | 112 | 240.2 | 57.5 | 9.9% | 67% |
| Dyna-Gro | D54VC34 | VT2P | 114 | 236.9 | 57.8 | 8.2% | 67% |
| Pioneer | P1197YHR | YGCB/HX1/RR2/LL | 111 | 231.2 | 58.2 | 5.8% | 67% |
| Augusta Seed | A1365 | PCE | 115 | 230.1 | 58.8 | 5.5% | 67% |
| Progeny Ag Products | PGY 2314TRE | TRECEPTA | 114 | 228.8 | 57.5 | 4.4% | 33% |
| Pioneer | P1222YHR | YHR | 112 | 227.5 | 58.9 | 4.2% | 67% |
| INTEGRA | 6493 | VT2P | 114 | 227.1 | 57.9 | 3.9% | 67% |
| Axis | 63M73 | TRECEPTA | 113 | 227.1 | 57.9 | 3.5% | 33% |
| Growmark Inc | FS 6306T RIB | TRECEPTA | 113 | 226.3 | 57.8 | 3.5% | 33% |
| Growmark Inc | FS 6017V RIB | VT2P | 110 | 226.1 | 56.9 | 3.2% | 33% |
| Gateway | 1913TRE | TRECEPTA | 113 | 226.0 | 57.5 | 3.7% | 33% |
| DEKALB - Bayer Crop Science | DKC 113-83 | TRE | 113 | 225.9 | 58.3 | 3.0% | 67% |
| INTEGRA | 6342 | TRECEPTA | 113 | 225.5 | 57.6 | 2.7% | 33% |
| DEKALB - Bayer Crop Science | DKC 65-99 | TRECEPTA | 115 | 225.2 | 57.5 | 2.9% | 33% |
| Seed Consultants | SC1134AM | AM | 113 | 225.1 | 57.5 | 2.9% | 33% |
| FS System | FS 6137 PC | PowerCore | 111 | 224.9 | 56.8 | 2.6% | 33% |
| DEKALB - Bayer Crop Science | DKC 63-56 | RR2 | 113 | 224.1 | 57.7 | 2.7% | 33% |
| FS System | FS 6133VDG RIB | VT2P | 111 | 223.6 | 56.7 | 2.3% | 67% |
| DEKALB - Bayer Crop Science | DKC 64-22 | VT2P | 114 | 223.3 | 59.9 | 1.8% | 33% |
| Revere Seed | Revere 1307 TC | TRECEPTA | 113 | 222.4 | 57.8 | 1.6% | 33% |
| Dyna-Gro | D53TC23 | TRECEPTA | 113 | 221.2 | 57.6 | 1.0% | 33% |
| Growmark Inc | FS 6217T RIB | TRECEPTA | 112 | 221.0 | 56.7 | 0.9% | 33% |
| Revere Seed | Revere 0918 SSX | SSX | 109 | 220.4 | 57.5 | 0.4% | 33% |
| DEKALB - Bayer Crop Science | DKC 62-70 | VT2P | 112 | 219.7 | 59.5 | 0.0% | 33% |
| Revere Seed | Revere 1577 VT2P | VT2P | 115 | 219.6 | 58.8 | 0.1% | 33% |
| Axis | 65W75 | TRECEPTA | 115 | 219.4 | 57.8 | 0.1% | 33% |

Above Average Piedmont (Surry and Union) – Late Hybrids (2023)

| Company/Brand | Hybrid | Trait | Relative Maturity | Yield (bu/a) | Test Weight (lb/bu) | % of Trial Mean | Top Yield Group % |
|-----------------------------|----------------|----------|-------------------|--------------|---------------------|-----------------|-------------------|
| DEKALB - Bayer Crop Science | DKC 68-35 | VT2P | 118 | 229.3 | 59.3 | 19.5% | 100% |
| DEKALB - Bayer Crop Science | DKC 66-06 | TRECEPTA | 116 | 216.2 | 58.4 | 10.8% | 50% |
| INTEGRA | CX301119VT2P | VT2P | 119 | 213.4 | 57.5 | 9.8% | 50% |
| FS System | FS 6627T RIB | TRECEPTA | 116 | 211.6 | 59.1 | 8.8% | 50% |
| Dyna-Gro | D56TC44 | TRECEPTA | 116 | 209.0 | 59.2 | 6.7% | 50% |
| INTEGRA | 6624TRE | TRECEPTA | 116 | 206.0 | 59.3 | 5.0% | 50% |
| DEKALB - Bayer Crop Science | DKC 67-44 | VT2P | 117 | 205.5 | 59.1 | 5.6% | 0% |
| DEKALB - Bayer Crop Science | DKC 69-99 | TRECEPTA | 119 | 204.6 | 59.7 | 3.4% | 50% |
| AgraTech | 87VT2P | VT2P | 117 | 203.8 | 57.7 | 3.1% | 50% |
| Seedway | SX 19B23VT | VT2P | 118 | 203.5 | 57.6 | 3.3% | 50% |
| Dyna-Gro | D58TC94 | TRECEPTA | 118 | 203.4 | 60.1 | 3.6% | 50% |
| INTEGRA | 6641 | SS | 116 | 202.3 | 58.8 | 3.6% | 0% |
| Dyna-Gro | D57TC29 | TRECEPTA | 117 | 201.0 | 57.3 | 2.2% | 50% |
| Pioneer | P1622VYHR | VYHR | 116 | 199.3 | 59.3 | 2.9% | 0% |
| Revere Seed | Revere 1627 TC | TRECEPTA | 116 | 198.9 | 57.8 | 0.3% | 50% |
| Growmark Inc | FS 6818V RIB | VT2P | 118 | 198.3 | 59.3 | 2.2% | 0% |
| DEKALB - Bayer Crop Science | DKC 117-78 | VT2P | 117 | 196.9 | 59.3 | 0.6% | 0% |
| INTEGRA | 6720 | VT2P | 117 | 196.6 | 59.5 | 0.7% | 0% |

More information about the corn data can be found at the bottom of the soybean charts below.

SOYBEANS**Above Average Piedmont 2023 - MG4 Full Season**

| Company/Brand | Varieties | Trait | Yield | % of Trial Mean | Top Yield Group |
|-------------------|----------------|---------------|-------|-----------------|-----------------|
| UniSouth Genetics | USG 7487XTS | Xtend/STS | 103 | 16.30% | 100.00% |
| Asgrow | AG49XF3 | XtendFlex | 100.2 | 11.80% | 75.00% |
| Revere Seed | Revere 4606XFS | XtendFlex/STS | 98.8 | 11.10% | 50.00% |
| Syngenta - NK | NK48-H3XFS | XtendFlex/STS | 98.3 | 11.00% | 50.00% |
| HiSOY | HS46F00 | XtendFlex | 97.4 | 9.20% | 25.00% |
| Revere Seed | Revere 4826XF | XtendFlex | 96.7 | 8.40% | 25.00% |

| | | | | | |
|---------------------|----------------|------------------|------|--------|---------|
| DONMARIO SEEDS | DM48F53 | XtendFlex | 96.4 | 8.90% | 50.00% |
| Revere Seed | Revere 4821XFS | XtendFlex/STS | 95.9 | 7.10% | 25.00% |
| Syngenta - NK | NK49-C2XFS | XtendFlex/STS | 95.2 | 6.50% | 25.00% |
| Dyna-Gro | S49XF43S | XtendFlex/STS | 95.1 | 7.10% | 0.00% |
| INTEGRA | XF4893NS | XtendFlex/STS | 94.9 | 6.10% | 25.00% |
| UniSouth Genetics | USG 7461XFS | XtendFlex/STS | 94.4 | 5.50% | 25.00% |
| Gateway Seed | 473XFS | XtendFlex/STS | 94 | 5.00% | 25.00% |
| Gateway Seed | 469XF | XtendFlex | 93.5 | 5.00% | 0.00% |
| HiSOY | HS48F30 | XtendFlex | 91.6 | 3.20% | 0.00% |
| Bayer Crop Science | AG48XF3 | XtendFlex | 91.5 | 2.70% | 0.00% |
| UniSouth Genetics | USG 7474XFS | XtendFlex/STS | 90.3 | 2.10% | 0.00% |
| Progeny Ag Products | P 4691 XFS | XtendFlex/STS | 90.2 | 0.60% | 25.00% |
| Progeny Ag Products | P 4798 XF | XtendFlex | 90 | 0.80% | 0.00% |
| Dyna-Gro | S47XF23S | XtendFlex/STS | 89.7 | 0.60% | 0.00% |
| CNI | X4660NS | Xtend | 89.3 | 0.30% | 0.00% |
| Progeny Ag Products | P 4604 XFS | XtendFlex/STS | 89.1 | 0.60% | 0.00% |
| Revere Seed | Revere 4299XFS | XtendFlex/STS | 88.2 | 12.30% | 100.00% |
| INTEGRA | XF4454S | XtendFlex/STS | 84.6 | 5.90% | 100.00% |
| AGSouth Genetics | AGS V4921S | Conventional/STS | 73.7 | 13.80% | 67.00% |
| AGSouth Genetics | AGS V4520S | Conventional | 65.1 | 3.60% | 0.00% |
| Perdue | P45XP421 | Conventional | 64.3 | 1.00% | 0.00% |

Above Average Piedmont 2023 - MG4 Doublecrop

| Company/Brand | Varieties | Trait | Yield | % of Trial Mean | Top Yield Group |
|---------------------|----------------|------------------|-------|-----------------|-----------------|
| INTEGRA | XF4893NS | XtendFlex/STS | 80.1 | 10.2% | 100.0% |
| Syngenta - NK | NK48-H3XFS | XtendFlex/STS | 79.8 | 9.9% | 100.0% |
| UniSouth Genetics | USG 7487XTS | Xtend/STS | 78.5 | 8.2% | 100.0% |
| INTEGRA | XF4454S | XtendFlex/STS | 77.8 | 7.4% | 100.0% |
| Revere Seed | Revere 4606XFS | XtendFlex/STS | 77.4 | 6.3% | 50.0% |
| HISOY | HS46F00 | XtendFlex | 77.3 | 6.5% | 100.0% |
| Dyna-Gro | S49XF43S | XtendFlex/STS | 77.3 | 6.2% | 50.0% |
| Revere Seed | Revere 4821XFS | XtendFlex/STS | 76.6 | 5.2% | 50.0% |
| Asgrow | AG49XF3 | XtendFlex | 76.3 | 5.2% | 50.0% |
| DONMARIO SEEDS | DM48F53 | XtendFlex | 76.1 | 4.6% | 50.0% |
| UniSouth Genetics | USG 7461XFS | XtendFlex/STS | 76.1 | 4.5% | 50.0% |
| Revere Seed | Revere 4299XFS | XtendFlex/STS | 76 | 4.8% | 100.0% |
| Progeny Ag Products | P 4604 XFS | XtendFlex/STS | 75.5 | 3.8% | 0.0% |
| Revere Seed | Revere 4826XF | XtendFlex | 75.5 | 4.1% | 50.0% |
| CNI | X4660NS | Xtend | 75.1 | 3.4% | 50.0% |
| Asgrow | AG45XF3 | XtendFlex | 74.8 | 3.3% | 50.0% |
| Asgrow | AG48XF3 | XtendFlex | 73.8 | 2.0% | 50.0% |
| Dyna-Gro | S48EN73 | Enlist | 73.8 | 1.8% | 50.0% |
| Progeny Ag Products | P 4806 XFS | XtendFlex/STS | 73.7 | 1.4% | 0.0% |
| Christine Cash | 41EE62 | Enlist | 73.4 | 1.1% | 50.0% |
| UniSouth Genetics | USG 7474XFS | XtendFlex/STS | 73.4 | 1.1% | 0.0% |
| Stine Seed | 47EE20 | Enlist/STS | 73.3 | 0.6% | 0.0% |
| AGSouth Genetics | AGS V4921S | Conventional/STS | 67 | 8.9% | 100.0% |

Above Average Piedmont 2023 – MG5 Full Season

| Company/Brand | Varieties | Trait | Yield | Top Yield Group | % of Trial Mean |
|---------------------|-------------------|---------------|-------|-----------------|-----------------|
| UniSouth Genetics | USG 7584XF | XtendFlex | 96.8 | 75.0% | 16.1% |
| Syngenta - NK | NK54-J9XFS | XtendFlex/STS | 94.7 | 75.0% | 14.0% |
| Progeny Ag Products | P 5441 XF | XtendFlex | 93 | 75.0% | 11.4% |
| Gateway Seed | 555XF | XtendFlex | 92.4 | 50.0% | 10.9% |
| UniSouth Genetics | USG 7543XF | XtendFlex | 92 | 75.0% | 10.6% |
| Progeny Ag Products | P 5641 XF | XtendFlex | 90.5 | 50.0% | 8.5% |
| Progeny Ag Products | P 5751 XF | XtendFlex | 90.5 | 50.0% | 8.8% |
| Asgrow | AG56XF2 | XtendFlex | 88.7 | 0.0% | 6.7% |
| Dyna-Gro | S58XF24 | Xtend | 87.8 | 25.0% | 5.4% |
| CNI | XF5834S | XtendFlex/STS | 87.8 | 50.0% | 5.4% |
| HiSOY | HS58F30 | XtendFlex | 87.3 | 25.0% | 5.1% |
| Dyna-Gro | S58XT30 | Xtend | 87.1 | 25.0% | 4.8% |
| Revere Seed | Revere 5735XFS | XtendFlex/STS | 87 | 25.0% | 4.6% |
| Gateway Seed | 583XFS | XtendFlex/STS | 87 | 25.0% | 4.9% |
| Asgrow | AG58XF3 | XtendFlex | 86.4 | 25.0% | 3.7% |
| DONMARIO SEEDS | DM 59E01S | Enlist/STS | 85.7 | 25.0% | 2.4% |
| HiSOY | HS57E11 | Enlist | 85.5 | 25.0% | 2.9% |
| Revere Seed | Revere 5029XF | XtendFlex | 85.4 | 25.0% | 2.6% |
| Revere Seed | Revere 5607XF | XtendFlex | 84.9 | 0.0% | 2.0% |
| Asgrow | AG57XF1 | XtendFlex | 84.5 | 25.0% | 1.4% |
| Revere Seed | Revere 5429E3 | Enlist | 84.5 | 25.0% | 1.7% |
| HiSOY | HS56F00 | XtendFlex | 84.2 | 0.0% | 1.0% |
| Asgrow | AG54XF0 | XtendFlex | 83.9 | 50.0% | 0.6% |
| Revere Seed | Innotech IS5143E3 | Enlist | 83.6 | 0.0% | 0.3% |
| Harvey's | AP54E32 | Enlist | 83.5 | 25.0% | 0.0% |

| | | | | | |
|------------------|-----------|--------------|------|--------|------|
| AGSouth Genetics | AGS V5422 | Conventional | 80.7 | 100.0% | 0.1% |
|------------------|-----------|--------------|------|--------|------|

Above Average Piedmont 2023 - MG5 Doublecrop

| Company/Brand | Varieties | Trait | Yield | Top Yield Group | % of Trial Mean |
|---------------------|-------------------|---------------|-------|-----------------|-----------------|
| Gateway Seed | 505XF | XtendFlex | 83.3 | 100.0% | 14.3% |
| Gateway Seed | 555XF | XtendFlex | 76 | 50.0% | 3.7% |
| Asgrow | AG54XF0 | XtendFlex | 77.3 | 50.0% | 6.5% |
| Asgrow | AG56XF2 | XtendFlex | 73.8 | 50.0% | 1.0% |
| Harvey's | AP54E32 | Enlist | 74.3 | 0.0% | 2.1% |
| DONMARIO SEEDS | DM 59E01S | Enlist/STS | 77.8 | 100.0% | 6.6% |
| HiSOY | HS54E10 | Enlist | 73.8 | 50.0% | 0.9% |
| HiSOY | HS58F30 | XtendFlex | 75.7 | 50.0% | 3.4% |
| Revere Seed | Innotech IS5143E3 | Enlist | 79 | 100.0% | 8.6% |
| Syngenta - NK | NK52-D6E3 | Enlist | 77.2 | 50.0% | 6.2% |
| Syngenta - NK | NK52-V1XF | XtendFlex | 74.3 | 0.0% | 2.1% |
| Syngenta - NK | NK54-J9XFS | XtendFlex/STS | 75.6 | 50.0% | 3.4% |
| Progeny Ag Products | P 5056 XFS | XtendFlex/STS | 80.3 | 100.0% | 10.3% |
| Progeny Ag Products | P 5441 XF | XtendFlex | 73.4 | 0.0% | 0.7% |
| Revere Seed | Revere 5029XF | XtendFlex | 80.3 | 100.0% | 10.5% |
| Revere Seed | Revere 5429E3 | Enlist | 73.4 | 0.0% | 0.9% |
| Revere Seed | Revere 5735XFS | XtendFlex/STS | 73.9 | 50.0% | 1.0% |
| Dyna-Gro | S51XF84S | XtendFlex/STS | 72.5 | 0.0% | 0.1% |
| Dyna-Gro | S58XF24 | Xtend | 77.4 | 100.0% | 5.7% |
| Dyna-Gro | S58XT30 | Xtend | 75.2 | 50.0% | 2.6% |
| Seedway | SG 5643XTF | XtendFlex | 73 | 0.0% | 0.2% |
| UniSouth Genetics | USG 7503XF | XtendFlex | 72.8 | 0.0% | 0.2% |
| UniSouth Genetics | USG 7514ET | Enlist | 75.2 | 50.0% | 3.6% |
| UniSouth Genetics | USG 7542ET | Enlist | 74.9 | 50.0% | 2.7% |
| UniSouth Genetics | USG 7543XF | XtendFlex | 76 | 50.0% | 4.0% |
| CNI | XF5834S | XtendFlex/STS | 76.3 | 50.0% | 4.2% |

Above Average Piedmont 2023 – MG6 Full Season

| Company/Brand | Varieties | Traits | Yield | % of Trial Mean | Top Yield Group |
|------------------------------|---------------|--------------|-------|-----------------|-----------------|
| UniSouth Genetics | USG 7633XF | XtendFlex | 92.8 | 19.9% | 67.0% |
| NC Foundation Seed Producers | NC-Dunphy | Conventional | 83.2 | 11.6% | 100.0% |
| UniSouth Genetics | USG 7682XF | XtendFlex | 83.2 | 6.7% | 33.0% |
| Revere Seed | Revere 6927XF | XtendFlex | 83 | 6.1% | 67.0% |
| Seedway | SG 6243XTF | XtendFlex | 82.6 | 5.5% | 33.0% |
| HiSOY | HS62F30 | XtendFlex | 82.4 | 5.3% | 67.0% |
| Asgrow | AG69XF0 | XtendFlex | 81.3 | 4.3% | 33.0% |
| Syngenta - NK | NK67-P1XF | XtendFlex | 81.3 | 4.2% | 0.0% |
| Gateway Seed | 600XF | XtendFlex | 80.8 | 3.4% | 33.0% |
| Asgrow | AG66XF2 | XtendFlex | 80.4 | 3.1% | 33.0% |
| Southern Harvest | SH 6524 E | Enlist | 80.3 | 2.4% | 33.0% |
| Dyna-Gro | S63EN74 | Enlist | 79.7 | 1.6% | 33.0% |
| Harvey's | AP63E32 | Enlist | 79.6 | 1.6% | 33.0% |
| Syngenta - NK | NK68-G2E3S | Enlist/STS | 78.9 | 0.9% | 33.0% |
| Harvey's | AP69E33 | Elist | 78.7 | 0.6% | 0.0% |
| Southern Harvest | SH 6323 E3 | Enlist | 78.2 | 0.1% | 0.0% |
| USDA-ARS | N16-10889 | Conventional | 74.6 | 1.0% | 25.0% |

Above Average Piedmont 2023 – MG6 Double Crop

| Company/Brand | Varieties | Trait | Yield | % of Trial Mean | Top Yield Group |
|------------------------------|---------------|---------------|-------|-----------------|-----------------|
| Seedway | SG 6243XTF | XtendFlex | 79.2 | 12.4% | 100.0% |
| Syngenta - NK | NK68-G2E3S | Enlist/STS | 78.5 | 10.8% | 50.0% |
| Harvey's | AP69E33 | Enlist | 78.1 | 10.1% | 50.0% |
| UniSouth Genetics | USG 7633XF | XtendFlex | 77.3 | 9.3% | 100.0% |
| Syngenta - NK | NK67-P1XF | XtendFlex | 76.7 | 8.4% | 50.0% |
| HiSOY | HS62F30 | XtendFlex | 76.5 | 8.8% | 50.0% |
| Southern Harvest | SH 6323 E3 | Enlist | 74.4 | 4.6% | 50.0% |
| Dyna-Gro | S67XF34S | XtendFlex/STS | 73.6 | 4.4% | 0.0% |
| Revere Seed | Revere 6835XF | XtendFlex | 73 | 2.2% | 50.0% |
| Revere Seed | Revere 6927XF | XtendFlex | 72.4 | 2.6% | 0.0% |
| Southern Harvest | SH 6524 E | Enlist | 72.3 | 1.8% | 50.0% |
| UniSouth Genetics | USG 7682XF | XtendFlex | 71.7 | 1.5% | 0.0% |
| NC Foundation Seed Producers | NC-Dunphy | Conventional | 71.5 | 2.1% | 100.0% |
| CNI | XF6772S | XtendFlex/STS | 71.3 | 1.1% | 0.0% |
| Progeny Ag Products | P 6685 XFS | XtendFlex/STS | 71.2 | 0.8% | 0.0% |

Hybrids/varieties are sorted by yield from high to low. Top Yield Group % is the percentage of time the hybrid was in the top yield group across all locations tested in this category. For more details on these hybrids/varieties, visit ncovt.medius.re

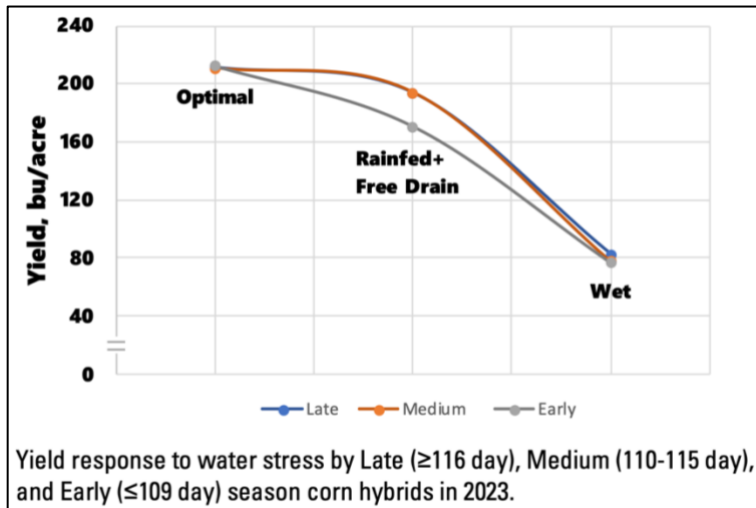
Water Resiliency Trials

The water resiliency performance trials were established to:

- Evaluate elite, commercially available corn hybrids and soybean varieties to water stress conditions during critical development stages.
- Provide an objective guide for extension agents, producers, and advisors in selecting hybrids appropriate for their field situations.

The trials, conducted at the Total Ag Water Management (TAWM) Site located at the Tidewater Research Station in Plymouth, NC, artificially impose water stress during the growing season under a uniform soil type, fertility program and observed natural precipitation. While this data is not local to Person/Granville Counties, I feel this information is interesting and important for growers to think about when making hybrid and variety selections. The soil-water regimes were defined as:

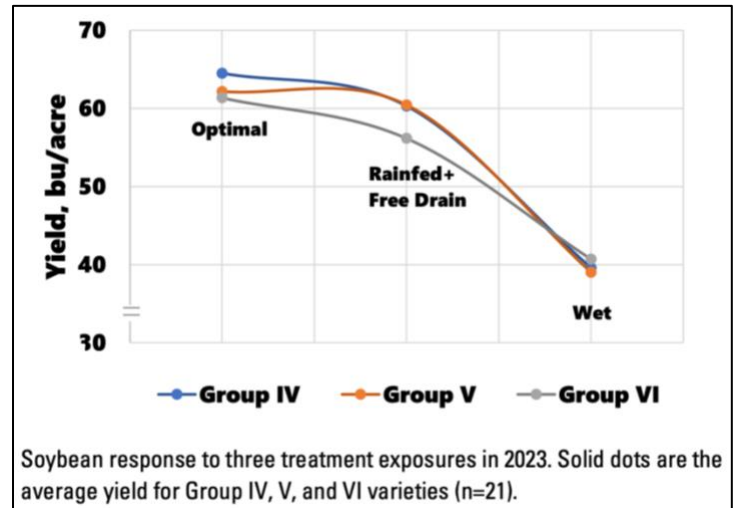
- Rainfed-Free Drain: intended to create **drier than normal conditions**
- Optimal: intended to create **ideal conditions** representative of efficient water management systems
- Wet: Intended to create **wet stress conditions**



Yield response to water stress by Late (≥116 day), Medium (110-115 day), and Early (≤109 day) season corn hybrids in 2023.

MAIN TAKE AWAYS –

- **Soybeans –**
 - Dryland exposure suppressed Group VI grain yield, a response we also observed in 2022.
 - Significant yield decreases occurred in all maturity groups due to poor drainage conditions compared to other treatments
- **Corn –**
 - We detected yield differences in late (≥116 day) and medium (110-115 day) season relative maturity group hybrids under Rainfed and Optimal soil-water regimes. In-season Wet stress reduced yield but significant differences were only detected in late season hybrids. Early (≤109 day) season hybrids were indifferent.
 - Monitoring root zone soil water status coupled with timely irrigation and drainage improved aggregate grain yield by 25.3 bu/acre compared to Rainfed exposure
 - Full data at person.ces.ncsu.edu/field-crops-program-2/field-crop-research/



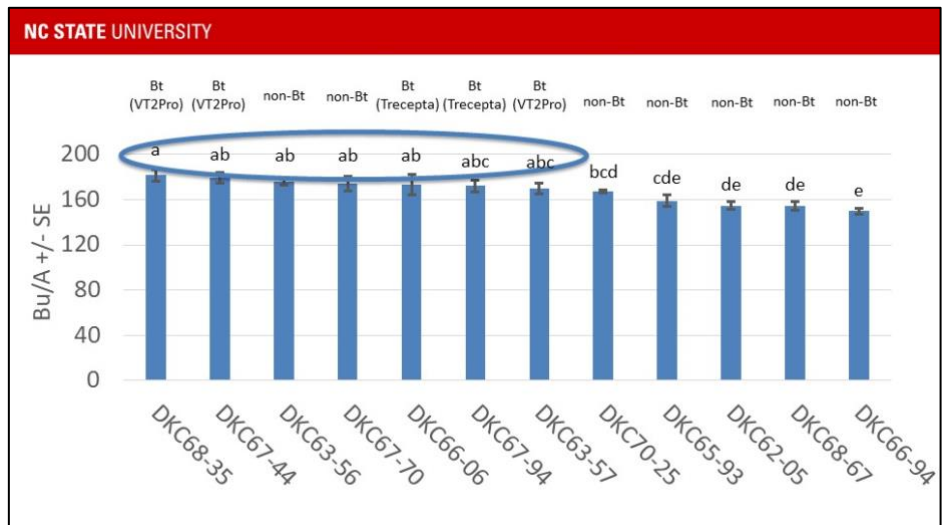
Soybean response to three treatment exposures in 2023. Solid dots are the average yield for Group IV, V, and VI varieties (n=21).

Corn Bt Trials

In 2022 and 2023, there were Corn Bt plots planted in Granville and Person Counties, respectively. These plots were included in a statewide trial investigating the efficacy of Bt traits to reduce corn earworm feeding, and further, the impact on yield of Bt v.s. non-Bt hybrids. The goal of this study is to investigate the impact of planting refuge corn (non-Bt corn) on total farm yield.

MAIN TAKE-AWAYS

- Utilizing Bt corn reduces feeding of corn earworm.
- Non-Bt varieties do not have significantly different yields than their Bt counterparts, so growers should be comfortable planting refuge corn.

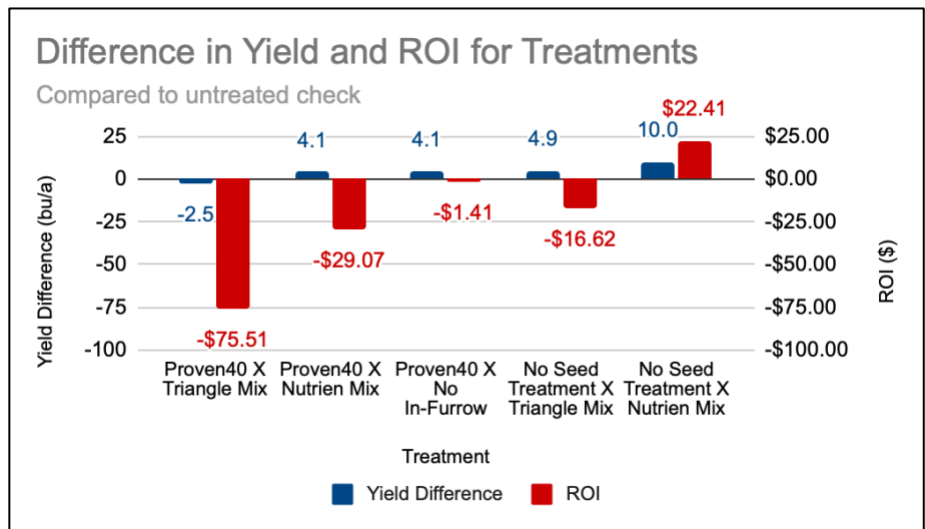


Intensive Corn Management Trial

This study looked at the impact of the biological seed treatment offered by PivotBio, "Proven40", along with the in-furrow application of recommended treatments from two companies. Nutrien Ag's mix includes Riser a starter fertilizer, and Radiate, a plant growth regulator and Triangle Chemical's mix includes Challenge Liquid Plant Food, a starter fertilizer and Mega Gro L, a plant growth regulator.

MAIN TAKE AWAYS:

- All but the Proven40 X Triangle Mix treatment had a positive yield response. The Nutrien Mix was the only treatment with a positive ROI.
- In plots with no biological seed treatment (Proven40), applying an in-furrow treatment did perform better than the check, though there were no differences between mixes (Nutrien VS Triangle).
- Proven40 seed treatment did not provide a statistically significant yield advantage. This could have been due to the dry nature of the season. It should be noted that other studies performed by NC State have found that Proven40 in-furrow treatment *did* provide yield advantages, and that this study does not disprove those findings.



Soybean Starter Fertilizer In-Furrow Trial

This study looked at the impact of in-furrow starter fertilizer products on the yield of soybeans. The two products were Riser and Challenge Liquid Plant Food. Riser contains 7-17-3, as well as small amounts of copper, iron, manganese, and zinc. Challenge contains 8-32-5, as well as zinc and humic acid. Plots received any of the following treatments:

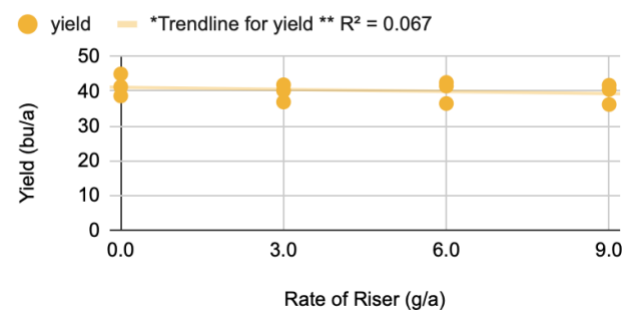
- Riser @ 3GPA
- Riser @ 6GPA
- Riser @ 9GPA
- Challenge Liquid Plant Food @ 0.05GPA
- Challenge Liquid Plant Food @ 0.10GPA
- Challenge Liquid Plant Food @ 0.15GPA
- Untreated Check

MAIN TAKE AWAYS:

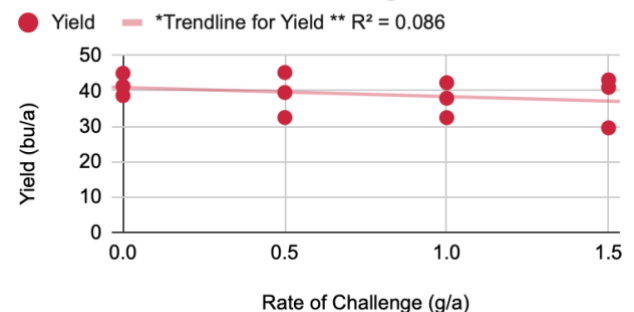
- In-Furrow treatments had little to no impact on yield for soybeans on this field.
- The results from this study support past research by NC State that indicates that the use of starter fertilizers on soybeans has little to no impact on soybean yields.

You can find more information about past in-furrow fertilizer research in "Starter Phosphorus Fertilizer and Additives in North Carolina Soils: Use, Placement, and Plant Response" by Luke Gatiboni, Deanna Osmond, David Hardy, and Steph Kulesza (<https://content.ces.ncsu.edu/starter-phosphorus-fertilizer-and-additives-in-nc-soils-use-placement-and-plant-response>)

Yield vs. Rate of Riser



Yield vs. Rate of Challenge



*The data has little to no correlation

**An R-Squared value indicates how well the trendline represents the data. A value of less than 0.5 indicates the line *does not* represent the data well.

Regional Corn Variety Trial

The agents of Person/Granville, Alamance, and Caswell worked together to host a regional variety trial. This trial had 5 locations of single replication variety trials in an effort to create more robust variety information for their growers. The combined data of this effort can be seen below. The full report can be found at WEBSITE!!!!

UPPER MIDDLE PIEDMONT REGION DATA WITH STATISTICS

| Variety | Company | Maturity | Yield | Group | Test Weight | Group |
|----------------|-------------|----------|--------------|----------|-------------|-----------|
| RV 1577 VT2P | Revere Seed | 115 | 111.5 | A | 59.7 | AB |
| AV 3514 AML | AgVenture | 114 | 103.9 | A | 59.3 | AB |
| D53TC23 | Dyna-Gro | 113 | 98.4 | A | 58.1 | B |
| P 1903 YHR | Pioneer | 119 | 97.8 | A | 58.2 | B |
| NK 1661-AA | NK | 116 | 97.5 | A | 60.0 | AB |
| A647-79 VT2PRO | AgriGold | 117 | 96.3 | A | 60.1 | AB |
| DKC 68-35 | Dekalb | 118 | 95.6 | A | 60.4 | A |
| FS 6306 T RIB | Invision | 113 | 90.7 | A | 59.1 | AB |

***Bolded** values, or values with the same group designation, are not statically different from the highest value.

TAKE HOME MESSAGES:

- There were no statistical differences between the varieties across the region in this study, but there were different yield trends at each location. Growers should take local trials like this and more robust region and statewide data from the OVTs into account when making variety decisions.

Wheat Fungicide Trial

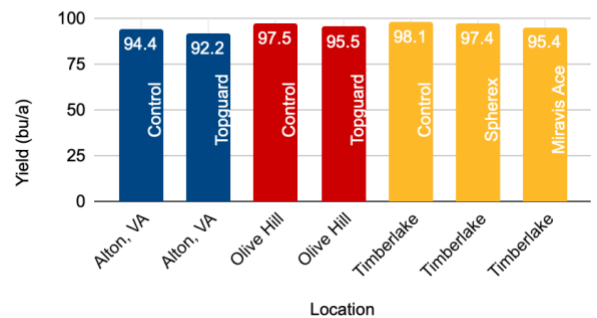
This study looked at the impact of foliar fungicide use in wheat on yield and quality. While yield is important when looking at treatment impact on wheat, quality can also impact the marketability of wheat and can change the price you receive for your wheat. Products tested include:

- Topguard EQ
- Spherex
- Miravis Top
- Untreated control

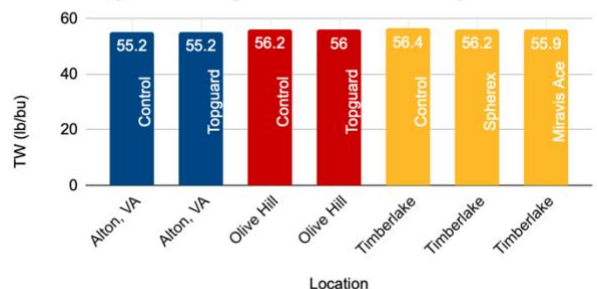
MAIN TAKE AWAYS:

- Foliar fungicides did not have an impact on yield or quality on wheat in 2023.
- Disease pressure was low in the 2023 season which could have impacted results. Applying fungicides to wheat based on disease pressure or disease risk is the recommended NC State practice.

Yield of Fungicide Treatments by Location



Test Weight of Fungicide Treatments by Location



ABOUT N.C. COOPERATIVE EXTENSION

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