NORTH CAROLINA
MEASURED CROP PERFORMANCE
CORN and CORN SILAGE
2014

North Carolina State University
College of Agriculture and Life Sciences
North Carolina Agricultural Research Service
Raleigh, North Carolina 27695
Steve Lommel, Director of Research

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North Carolina Measured Crop Performance

Corn and Corn Silage 2014

Official Variety Testing Program
Department of Crop Science
North Carolina State University
Raleigh, North Carolina 27695-8604

Carrie Brinton
Director

Johnny Denton, Phil Johnson, Dwight Parrish
Researchers

Consuelo Arellano
Research Assistant Professor, Statistics Department, NCSU

Cavell Brownie
Professor Emeritus, Statistics Department, NCSU

http://www.ncovt.com

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Cooperator	County Extension Affiliate
Columbus	
Harry Hart Miracle Acres - Bolton, NC	Michael Shaw Agriculture Agent
Duplin	
Henry Dail, Dail Farms Dail Farms - Kenansville, NC	Curtis Fountain Agriculture Agent
Lenoir	
Phillip Winslow, Superintendent Lower Coastal Plain Tobacco Research Station Kinston, NC	Jacob Morgan Agriculture Agent
Robeson	
Kevin and Mark Roberts Roberts Farms - Lumberton, NC	Mac Malloy Agriculture Agent
Rowan	
Joe Hampton, Superintendent Piedmont Research Station Salisbury, NC	Thomas Cobb, II Agriculture Agent
Union	
Everette Little Everette Little Farms - Marshville, NC	Andrew Baucom Agriculture Agent
Washington	
Jewell Tetterton, Superintendent Tidewater Research Station Plymouth, NC	Lance Grimes Agriculture Agent

OVT Corn Grain and Silage Test Sites - 2014

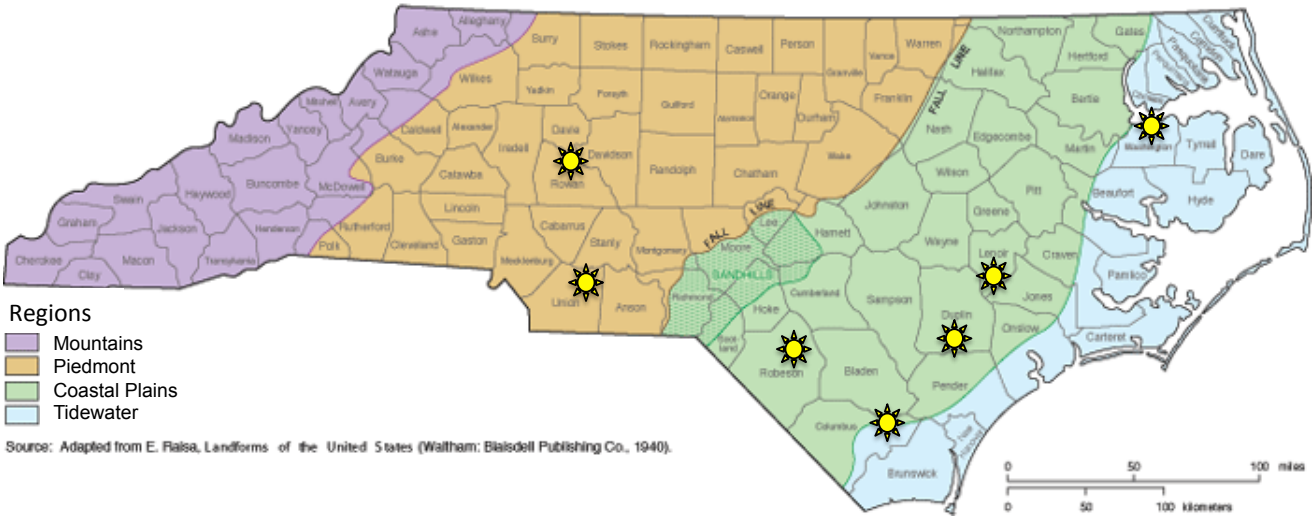


TABLE OF CONTENTS

INTRODUCTION

In 2014, North Carolina growers planted 775,000 acres of corn for grain production across the state, and over 29,000 acres of corn for silage. Silage is an important part of the beef and dairy cattle industry in North Carolina, particularly in the Piedmont and Mountain regions.

The performance of various corn hybrids in different areas of the state depends on their adaptation to the environmental conditions within the area. With the large number of commercially available and prospective hybrids of corn, it becomes difficult for growers to select a superior hybrid suited for their particular area of the state and their individual farming operations. To make this decision, the growers need up-to-date, unbiased, reliable information. The Official Variety Testing Program at North Carolina State University seeks to provide that information through this report.

This report provides information for corn production as both grain and silage. It contains information on experimental procedure, trial locations, current season weather and performance results, as well as, performance for the previous two years when possible. Corn trials are conducted at eight locations across the Tidewater, Coastal Plain and Piedmont regions of North Carolina. Silage is conducted at one location in the Piedmont.

Growers are cautioned against selecting hybrids based on an individual location in any one year. True hybrid performance may have been influenced by the weather or pest conditions experienced at any one location or any one growing season. Therefore, performance results are reported on a statewide and regional basis.

EXPERIMENTAL PROCEDURE

Entries: Any public or private individual or firm is welcome to submit entries to the Official Variety Testing Program. In early January of each year, trial instructions and applications for the upcoming season are distributed to all previous participants and to those who make inquiry; they are also available on our website: www.ncovt.com. Entries are planted in separate tests for early (105 - 109 day), medium (110 – 115 day) and late (> 115 day) maturing hybrids based on the relative maturity specified on the application form by the sponsoring agency. It is important to remember that hybrids are categorized based on relative maturity, hence some hybrids may actually fit into either of two maturity groups. An entry fee is charged for all private entries. The OVT program reserves the right to include additional entries for which additional information is desired.

During the 2014 growing season, 12 early, 59 medium and 26 late maturing hybrids were evaluated in the North Carolina corn grain trials. The silage trial evaluated 27 hybrids. Applicants provided seed to conduct

the statewide trials. Entries were requested to have the fungicidal and insecticidal seed treatments of choice. All seed treatments are listed by sponsor in Table 1.

Locations: Corn trials were planted at eight locations across the state. Early, medium and late maturity trials were conducted at all locations. One trial was conducted for silage on an upland soil in Rowan County, in the Piedmont of North Carolina. Table 2 lists the cultural practices used and Table 3 lists the soil test results.

Two trials were located in the Tidewater region – Washington and Beaufort Counties – on organic soil. Four trials were conducted in the Coastal Plain – Columbus, Robeson, Lenoir and Duplin Counties. Two trials were conducted in the Piedmont – Rowan and Union Counties. Within each region, performance trials were conducted on both North Carolina Department of Agriculture Research Stations, as well as private farms. A list of our cooperators and their locations are listed in the Acknowledgments. The Official Variety Testing Program recognizes and appreciates the cooperative spirit and civic-minded service rendered by the growers who have furnished, cultivated and managed the land for these trials.

Field Plot Design: A unique randomized, complete block design, with four or five replications per entry, was used at each location. Plots were planted as 28 feet long, and end trimmed approximately 4 weeks after emergence, to establish a uniform plot length of 22 feet. Each harvest plot consisted of two rows 22 feet long with a 30 or 38-inch row width, depending on management practices of the host farm. Plots were contiguous across the field, thereby reducing border effect. The two rows were harvested for yield.

Crop Management: Cultural practices, such as seedbed preparation, planting date, fertilization and topdressing were in accord with good farming practices and were uniform for all entries in a given trial (Table 2). Prior to planting each trial, soil samples were collected from the field and submitted to NCDA Agronomic Services Division for soil chemical analysis. Fertilizer and lime applications were made according to NCDA soil test recommendations. In 2014, all hybrids were planted at the same population per location, regardless of maturity group. Corn trials in the Tidewater region were planted at 32,000 plants per acre (ppa), while Coastal Plain and Piedmont locations were planted at 28,000 ppa. Corn silage was planted at 34,000 ppa.

SEASONAL CONDITIONS

The 2014 growing season began with on-time plantings for the OVT program (Table 2). Weather data is provided at the end of the report. Precipitation and temperatures are provided on a weekly basis to provide detail of the 2014 growing season (Figure 1-3a). This data is also presented on a monthly basis to compare this season's weather to the 30-year average weather data (Figures 1-3b and c). All locations experienced normal temperatures throughout the growing season. Rainfall patterns varied across the regions. The

Washington County trials received below normal rainfall during May and June (Figure 1). The Lenoir County trials were very wet through June and July. The Rowan trials experienced a wet April, but the rest of the season experienced normal rainfall.

The trials in Beaufort County were abandoned early due to poor stand establishment. Heavy rainfall and cold soils in the days after planting resulted in sporadic germination. Early corn in Washington and Columbus Counties were not harvested due to damage beyond human control, bear and wind damage, respectively. Early corn in Robeson County and all corn trials in Union County were omitted from the dataset due to extreme variability, hence a lack in confidence of measuring true hybrid performance.

Weather conditions this season provided the perfect conditions for Southern Rust infestation across North Carolina this season, however we only observed Southern Rust in two of our trials. The Rowan County trials were infected after the dent stage, so corn yield was not affected. However, Southern Rust likely had some impact on hybrid performance in the Columbus trials.

Weather did not delay corn harvest at any locations. Silage harvest occurred later than desired; evident by the percent dry matter at harvest. Silage corn dried down faster than anticipated, due to a week of dry weather. Harvest was delayed a few more days due to ground conditions following a heavy rain.

DATA AND RESULTS

Plant and Ear height: For corn, ear height was determined by measuring the distance from the ground to the node where the ear attaches to the stalk. For silage, height of fully matured plants was measured from ground level to the flag leaf node. All values are reported as statewide averages.

Grain Yield: Yield is reported as a mean value. Harvest values were adjusted to 15.5% moisture, and are reported as bushels per acre, based on 56 pounds per bushel. Additionally, all yield values reflect a 4.5% yield reduction to account for border effects that have been determined in our field trials. Therefore, reported yields indicate relative performance and may differ from on-farm yields.

Yield is reported as a mean value on both a statewide and regional basis by averaging data across all applicable environments within the state or region. These data are available for multiple year and current year. In calculating statewide and regional means, the means for each hybrid were weighted according to trial precision at each location. Therefore, these means are not simple averages of trial means. As statewide and regional means are weighted, two and three-year means may not appear to equal the average of the yearly means. Data are reported based on yield rank from highest to lowest.

Multi-year data is a better predictor of hybrid performance than single year or single environment data. Therefore, yield is reported for multiple year performance in addition to current year hybrid

performance. Multiple-year statewide data for early, medium and late hybrids is located in Tables 4, 6 and 8, respectively. Multiple-year regional data are reported for Tidewater (Tables 10 and 12), Coastal Plain (Tables 14, 16 and 18) and Piedmont (Tables 20, 22 and 24).

Statewide data for early, medium, and late relative maturity hybrids in 2014 are presented in Tables 5, 7 and 9. Regional data for early, medium, and late relative maturity hybrids in 2014 are presented for Tidewater (Tables 11 and 13), Coastal Plain (Tables 15, 17 and 19) and Piedmont (Tables 21, 23 and 25). Overall it was an above-average to average year for corn production in North Carolina, depending on location.

Silage Yield: At harvest, silage was weighed at field moisture. Sub-samples were collected at harvest and oven-dried at 140 °F to measure percent moisture and dry matter at harvest. These values were used to calculate dry matter yield (tons per acre) and silage yield which is reported at 65% moisture (Table 27). Additionally, all yield values reflect an 18.2% yield reduction to account for border effects that have been determined in our field trials. Therefore, reported yields indicate relative performance and may differ from on-farm yields. Multiple year performance for silage corn is reported for hybrids entered for two and three years in the North Carolina Official Variety Trials (Table 26).

MILK2006: Silage samples were sent to Dairy One Forage Testing Laboratory to analyze forage quality using near infrared reflectance (NIR) spectroscopy. Many characteristics were analyzed using the NIR 48-hr NDFD incubation period. Several of these: dry matter, crude protein, neutral detergent fiber, neutral detergent fiber digestibility (NDFD), starch, ash and fat were used to calculate milk production using the MILK2006 equation developed at the University of Wisconsin (Shaver, 2006). These values are a useful tool to assess relative milk production of hybrids. Milk production is reported as pounds per acre and pounds per ton dry matter. Hybrids are ranked based on milk production per acre (Table 27).

COMPARING HYBRIDS

Performance of a hybrid cannot be determined with absolute precision. Even though the tests are conducted in a uniform manner, uncontrollable variability exists among experimental plots due to environmental differences in soil, fertility, moisture, insects, diseases, and other sources of variation. Because this variability exists, statistics are used as a tool to examine differences among hybrids. A statistical method of spatial analysis has been used to allow for similarities between neighboring plots based on their location in the field in order to adjust for the unknown environmental variation (Brownie et al., 1993). The particular spatial model allows for correlations that decrease exponentially as distance between plots increases in both row and column directions.

Coefficient of variation (**CV**) is a relative assessment of trial variability. It measures experimental error caused by variation in management practices and immeasurable factors in the environment as a percent of mean yield for the trial. To summarize values of CV for multiple environments, the average of the values for individual sites (**avg CV**) is reported. Lower values generally indicate trials with less unexplained variation, hence, more reliable trials (though high mean yields also tend to produce lower CVs).

Standard error of the mean (**SEM**) is listed as a general indicator of precision since it measures how well a true hybrid mean was estimated. For individual trials, SEM varies across hybrids (due to accounting for spatial variation within the site) and is summarized by reporting the average SEM (avg SEM). On average, this indicates how well hybrid means were measured across all replications within the trial. Where multiple trials were combined for regional and statewide data, **SEM** is reported. For combined datasets, the hybrid mean is an average over environments and replications within environments, weighted by precision associated with each environment. The SEM for averages over environments is the same for each hybrid and mainly reflects differences in performance of hybrids across environments. Thus, lower values of SEM tend to indicate greater consistency in hybrid rankings across environments.

All reported trials meet an established criterion for precision by having an average value of the standard error of a difference between hybrid means (avg SEDiff) below a threshold value. Avg SEDiff is calculated as the square root of the average variance of a difference between two hybrid means. Threshold SEDiff values are based on OVT data from 1990 - 2013, and are calculated as the value twice as large as that predicted from the historical data following Bowman and Rawlings (1995).

In assessing hybrid performance, the largest yield difference between two hybrids which can reasonably be attributed to chance variation, is listed at the bottom of each table as the least significant difference **(LSD)**. Where multiple trials were combined for regional and statewide data, LSD accounts for variation across all environments. However, for individual trials, this is reported as the average LSD (**avg LSD**), and represents the difference of hybrids within a trial. Hybrids whose yields differ by less than the average LSD are not statistically different. Those hybrids that are not different from the highest observed yield are denoted in the tables with an asterisk (*); the highest yielding hybrid is denoted by a double asterisk (**). The LSD for comparisons among hybrid means is applied at the 10% level, which indicates 90% confidence that yield differences are not due to chance variation. The degrees of freedom associated with the LSD (**df LSD**) are also reported in the tables.

Hybrid performance may appear inconsistent among environments within an area or among years at a particular location. Year-to-year variation in weather and pest pressure is sufficiently large enough to make

predictions of hybrid performance based on single-year data less reliable than predictions using multiple-year data. Research has shown that multiple-year means across environments provide the best prediction of hybrid performance. Thus it is important to examine results from more than one location and more than one year to obtain a more accurate picture of relative hybrid performance. When available, growers should examine 2- and 3-year multiple environment data provided in the EVEN numbered tables in this report. If these data are not available, growers can use the single year, multiple location data provided in the ODD numbered tables in this report.

New hybrids are being introduced each year and these hybrids are potentially higher yielding or pest resistant than the current hybrids. It is suggested that growers plant new hybrids on a small number of acres to determine if it is adapted to their farm. Other agronomic characteristics may be as equally important as yield. Yield information presented in this report should be used in junction with other available information and personal experience when selecting hybrids.

All information found in this report
is available on the web at:
http://www.ncovt.com

Table 1. Information on corn and corn silage entries in the 2014 North Carolina Official Variety Trials.

Brand	Hybrid	CRM	Technology Trade Name	Insect Target	Herbicide Target	Seed Treatment
Armor Seed Chris Ouzts 183 Pennsylvania Avenue Waldenburg, AR 72475 (662) 719-3157	Armor 0700 PRO2	107	Genuity® VT Double PRO®	CB BL	RR2	AC, P500V
	AXC2108	107	Genuity® VT Triple PRO®	CB RW BL	RR2	
	AXC3108	108	Genuity® SmartStax®	CB RW BL	LL RR2	
	AXT4109 PRO2	109	Genuity® VT Double PRO®	CB BL	RR2	
	Armor 1262 PRO2	112	Genuity® VT Double PRO®	CB BL	RR2	
	Armor 1314 PRO2	113	Genuity® VT Double PRO®	CB BL	RR2	
	Armor 1330 PRO2	113	Genuity® VT Double PRO®	CB BL	RR2	
	Armor 1414PDG	114	Genuity® VT Double PRO®	CB BL	RR2	
	Armor 1550 PRO2	115	Genuity® VT Double PRO®	CB BL	RR2	
	Armor 1555 PRO2	115	Genuity® VT Double PRO®	CB BL	RR2	
	Armor AXC4114W	114	Genuity® VT Double PRO®	CB BL	RR2	
	AXC4110 SS	110	Genuity® SmartStax®	CB RW BL	LL RR2	
	Armor AXT3111	111	Genuity® VT Double PRO®	CB BL	RR2	
	Armor 1616	116	Genuity® VT Triple PRO®	CB RW BL	RR2	
	Armor 1880 PRO2	118	Genuity® VT Double PRO®	CB BL	RR2	
	Armor AXC3117	117	Genuity® VT Triple PRO®	CB RW BL	RR2	
Augusta Seed Matt Rawley PO Box 899 Verona, VA 24482 (540) 255-8094	Augusta A5658GTCBLL	108	Agrisure® GT/CB/LL	CB	GT LL	CM1250
	Augusta A5565VT2Pro	115	Genuity® VT Double PRO®	CB BL	RR2	
	Augusta A5664GT3000	114	Agrisure® 3000GT	CB RW	GT LL	
	Augusta A6664VT3Pro	114	Genuity® VT Triple PRO®	CB RW BL	RR2	
	Augusta A5566GTCBLL	116	Agrisure® GT/CB/LL	CB	GT LL	
	Augusta A7767VT3Pro	117	Genuity® VT Triple PRO®	CB RW BL	RR2	
	Augusta A8868VT3	118	Genuity® VT Triple®	CB RW	RR2	
	Augusta A5566GTCBLL	116	Agrisure® GT/CB/LL	CB	GT LL	
	Augusta A8064VT3 PRO	114	Genuity® VT Triple PRO®	CB RW BL	RR2	
	Augusta A8868VT3 PRO	118	Genuity® VT Triple PRO®	CB RW BL	RR2	
B-H Genetics Travis Janak 5933 FM 1157 Ganado, TX 77962 (361) 771-2755	BH 8550SS	114	Genuity® SmartStax®	CB RW BL	LL RR2	AC, P1250V
	BH 8660VTTP	115	Genuity® VT Triple PRO®	CB RW BL	RR2	
	BH 8700VTTP	114	Genuity® VT Triple PRO®	CB RW BL	RR2	
	BH 8830VTTP	115	Genuity® VT Triple PRO®	CB RW BL	RR2	
	BH 8900VIP3111	115	Agrisure® Viptera® 3111	Vip CB RW	GT LL	
	BH 8928VTTP	115	Genuity® VT Triple PRO®	CB RW BL	RR2	
Crop Production Services Rick Strecker 843 Forman Bundy Road Elizabeth City, NC 27909 (252) 339-2615	Dyna-Gro D46SS46	106	Genuity® SmartStax®	CB RW BL	LL RR2	AC, P1250V
	Dyna-Gro D52VC91	112	Genuity® VT Double PRO®	CB BL	RR2	
	Dyna-Gro D53VC13	113	Genuity® VT Double PRO®	CB BL	RR2	
	Dyna-Gro D55QC73	115	Agrisure® Viptera® 3110	Vip CB	GT LL	
	Dyna-Gro D55VP77	115	Genuity® VT Triple PRO®	CB RW BL	RR2	
	Dyna-Gro D56VC46	116	Genuity® VT Double PRO®	CB BL	RR2	
	Dyna-Gro D57VP51	117	Genuity® VT Triple PRO®	CB RW BL	RR2	
	Dyna-Gro D57VP75	117	Genuity® VT Triple PRO®	CB RW BL	RR2	
	Dyna-Gro D55QC73	115	Agrisure® Viptera® 3110	Vip CB	GT LL	
	Dyna-Gro D59HR50	119	Herculex® I	HX1	LL RR2	
	Dyna-Gro D57VP75	117	Genuity® VT Triple PRO®	CB RW BL	RR2	
Doebler's PA Hybrids, Inc. Doug Messersmith 202 Tiadaghton Avenue Jersey Shore, PA 17740 (570) 753-3210	Doebler's RPM 5015YHR	110	Optimum® Intrasect®	YGCB HX1	LL RR2	P1250V
	Doebler's RPM 5215YHR	112	Optimum® Intrasect®	YGCB HX1	LL RR2	
	Doebler's RPM 685YHR	113	Optimum® Intrasect®	YGCB HX1	LL RR2	
	Doebler's RPM 5915HXR	119	Herculex® I	HX1	LL RR2	
	Doebler's RPM 765YHR	117	Optimum® Intrasect®	YGCB HX1	LL RR2	
	Doebler's RPM 5315AMXT	113	Optimum® AcreMax® XTreme	YGCB HXX RW	LL RR2	
	Doebler's RPM 685YHR	113	Optimum® Intrasect®	YGCB HX1	LL RR2	
	Doebler's 5815GRQ	118	Agrisure® 3000GT	CB RW	GT LL	

Hybrids with gray background are entries in the corn silage trial.
Some hybrids are in both the grain and silage trials.

Table 1 (*continued*). Information on corn and corn silage entries in the 2014 North Carolina Official Variety Trials.

Brand	Hybrid	CRM	Technology Trade Name	Insect Target	Herbicide Target	Seed Treatment
GETSco Ag Services Ken Miller 860 Horseshoe Road Elizabeth City, NC 27909 (252) 333-3788	Beck's 5140HR	105	Herculex® I	HX1	LL RR2	Es
	Beck's 5509VR	110	Agrisure® CB/LL & Viptera® 3110	Vip CB	GT LL	
	Beck's 6272AM-R	112	Optimum® AcreMax®	YGCB HX1	LL RR2	
	Beck's 6348 A3	113	Agrisure® 3000GT	CB RW	GT LL	
	Beck's 6575HR	115	Herculex® I	HX1	LL RR2	
	Beck's 6948A3	115	Agrisure® 3000GT	CB RW	GT LL	
	Beck's 6778AM	117	Optimum® AcreMax®	YGCB HX1	LL RR2	
Great Heart Seed Mark Kinsey 220 West Washington Street Paris, IL 61944 (765) 592-1773						P500V
	HT-7261VT3PRORIB	112	Genuity® VT Triple PRO®	CB RW BL	RR2	
	HT-389VT3PRORIB	113	Genuity® VT Triple PRO®	CB RW BL	RR2	
Monsanto Michael Baker 800 N Lindbergh Blvd St. Louis, MO 63167 (314) 694-1000	Dekalb DKC 61-54	111	Genuity® SmartStax®	CB RW BL	LL RR2	AC, P1250V
	Dekalb DKC 62-08	112	Genuity® SmartStax®	CB RW BL	LL RR2	
	Dekalb DKC 62-77	112	Genuity® SmartStax®	CB RW BL	LL RR2	
	Dekalb DKC 64-69	114	Genuity® VT Triple PRO®	CB RW BL	RR2	
	Dekalb DKC 67-58	117	Genuity® VT Double PRO®	CB BL	RR2	
	Dekalb DKC 68-92	118	Genuity® VT Double PRO®	CB BL	RR2	
	Dekalb DKC 66-87	116	Genuity® VT Double PRO®	CB BL	RR2	
	Dekalb DKC 67-88	117	Genuity® VT Triple PRO®	CB RW BL	RR2	
	Dekalb DKC 68-92	118	Genuity® VT Double PRO®	CB BL	RR2	
Mycogen Seeds Richard Bennek 300 Pine Tree Road Selma, NC 27576 (919) 449-5056	Mycogen 2C786	114	Genuity® SmartStax®	CB RW BL	LL RR2	CM1250
	Mycogen 2C797	114	Genuity® SmartStax®	CB RW BL	LL RR2	
	Mycogen 2J794	115	Herculex® I	HX1	LL RR2	
	Mycogen 2V714	111	Genuity® SmartStax®	CB RW BL	LL RR2	
	Mycogen 2V777	113	Genuity® SmartStax®	CB RW BL	LL RR2	
	Mycogen F2F817	116	Genuity® SmartStax®	CB RW BL	LL RR2	
	Mycogen TMF2H747	113	Genuity® SmartStax®	CB RW BL	LL RR2	
	Mycogen TMF2H919	123	Genuity® SmartStax®	CB RW BL	LL RR2	
	Mycogen TMF2L825	117	Herculex® I	HX1	LL RR2	
	Mycogen TMF2R737	112	Genuity® SmartStax®	CB RW BL	LL RR2	
Pioneer, A Dupont Company George Stabler 59 Grief Parkway, Suite 200 Delaware, OH 43015 (803) 308-1003	Pioneer P0604AM	106	Optimum® AcreMax®	YGCB HX1	LL RR2	AV1250
	Pioneer P1197AM	111	Optimum® AcreMax®	YGCB HX1	LL RR2	
	Pioneer P1319HR	113	Herculex® I	HX1	LL RR2	
	Pioneer P1529YHR	115	Optimum® Intrasect®	YGCB HX1	LL RR2	
	Pioneer P1739YHR	117	Optimum® Intrasect®	YGCB HX1	LL RR2	
	Pioneer P1775YHR	117	Optimum® Intrasect®	YGCB HX1	LL RR2	
	Pioneer P1775YHR	117	Optimum® Intrasect®	YGCB HX1	LL RR2	
	Pioneer P2089YHR	120	Optimum® Intrasect®	YGCB HX1	LL RR2	
Seed Consultants, Inc. Bill Mullen Jr. PO Box 370 Washington Court House, OH 43160 (800) 708-2676	SC 11AGT43	113	Agrisure® GT/CB/LL	CB	GT LL	CM250
	SC 11AQ15	111	Agrisure® 3000GT	CB RW	GT LL	
	SC 11AQ35	112	Agrisure® 3000GT	CB RW	GT LL	
	SC 11AGT74	116	Agrisure® GT/CB/LL	CB	GT LL	
	SC 11AQ72	117	Agrisure® 3000GT	CB RW	GT LL	
	SCS 1094AM	108	Optimum® AcreMax®	YGCB HX1	RR2	MQ, Rx, P1250V
	SCS 1131AM-R	112	Optimum® AcreMax®	YGCB HX1	RR2	
	SCS 1154AM	114	Optimum® AcreMax®	YGCB HX1	RR2	
	SCS 11HR63	116	Herculex® I	HX1	LL RR2	MQ, P1250V

Hybrids with gray background are entries in the corn silage trial.
Some hybrids are in both the grain and silage trials.

Table 1 (*continued*). Information on corn and corn silage entries in the 2014 North Carolina Official Variety Trials.

Brand	Hybrid	CRM	Technology Trade Name	Insect Target	Herbicide Target	Seed Treatment
Syngenta Seeds, Inc. Ken Teeter 2447 Matthews Road Clayton, NC 27520 (919) 989-8591	N68B 3111 Brand	111	Agrisure® Viptera® 3111	Vip CB RW	GT LL	CM1250
	N74R 3000GT Brand	114	Agrisure® 3000GT	CB RW	GT LL	
	N79Z 3111 Brand	115	Agrisure® Viptera® 3111	Vip CB RW	GT LL	
	N78S 3111 Brand	116	Agrisure® Viptera® 3111	Vip CB RW	GT LL	
	N83D 3000GT Brand	118	Agrisure® 3000GT	CB RW	GT LL	
	N78S-3111 Brand	116	Agrisure® Viptera® 3111	Vip CB RW	GT LL	
	N79Z-3111 Brand	115	Agrisure® Viptera® 3111	Vip CB RW	GT LL	
	N82V-3111 Brand	117	Agrisure® Viptera® 3111	Vip CB RW	GT LL	
	N83D-3000GT	118	Agrisure® 3000GT	CB RW	GT LL	
T. A. Seeds Cory Chelko 39 Seeds Lane Jersey Shore, PA 17740 (570) 753-5503	TA 566-31	107	Agrisure® Viptera® 3111	Vip CB RW	GT LL	CM250
	TA 583-22DP	108	Genuity® VT Double PRO®	CB BL	RR2	
	TA 647-22DP	111	Genuity® VT Double PRO®	CB BL	RR2	
	TA 683-13VP	112	Genuity® VT Triple PRO®	CB RW BL	RR2	
	TA 753-22DP	115	Genuity® VT Double PRO®	CB BL	RR2	
	TA 765-30	115	Agrisure® Viptera® 3111	Vip CB RW	GT LL	
	TA 774-13VP	116	Genuity® VT Triple PRO®	CB RW BL	RR2	
	TA 784-13VP	118	Genuity® VT Triple PRO®	CB RW BL	RR2	
	TA 765-30	115	Agrisure® Viptera® 3111	Vip CB RW	GT LL	
	TA 780-22DP	116	Genuity® VT Double PRO®	CB BL	RR2	
	TA 784-13VP	118	Genuity® VT Triple PRO®	CB RW BL	RR2	
Tenkoz, Inc. Kim Foster PO Box 368 Kinston, NC 28501 (252) 291-6007						P1250V
	Phoenix 7914A4 Viptera 3111	115	Agrisure® Viptera® 3111	Vip CB RW	GT LL	
	Phoenix 6542A4 Viptera 3111	116	Agrisure® Viptera® 3111	Vip CB RW	GT LL	
	Phoenix 6706A4 Viptera 3111	116	Agrisure® Viptera® 3111	Vip CB RW	GT LL	
Terral Seed, Inc. Marty Hale 111 Ellington Drive Rayville, LA 71276 (318) 231-8800	REV 18BHR84	108	Optimum® Intrasect®	YGCB HX1	LL RR2	P1250V
	REV 23BHR55	113	Optimum® Intrasect®	YGCB HX1	LL RR2	
	REV 24BHR93	114	Optimum® Intrasect®	YGCB HX1	LL RR2	
	REV 25BHR44	115	Optimum® Intrasect®	YGCB HX1	LL RR2	
	REV 27HR83	117	Herculex® I	HX1	LL RR2	

Hybrids with gray background are entries in the corn silage trial.
Some hybrids are in both the grain and silage trials.

Insect and Herbicide Abbreviations

BL	Broad Lepidoptera protection
CB	Corn Borer protection
GT	Glyphosate tolerance
HX1	Herculex® I
HXX	Herculex® XTRA (Herculex® I & RW)
LL	Liberty Link® tolerance
RW	Rootworm protection
RR2	Roundup Ready® 2 tolerance
Vip	Agrisure® Viptera®
YGCB	YieldGuard® corn borer

Seed Treatment Abbreviations

AC	Acceleron®
AV1250	Avicta® Complete Corn 1250
CM250	CruiserMaxx® 250
CM1250	CruiserMaxx® 1250
Es	Escalate™
MQ	Maxim® Quattro
P500V	Poncho® 500 + VOTiVO®
P1250V	Poncho® 1250 + VOTiVO®
Rx	Raxil®

Table 2. Cultural practices for North Carolina corn and corn silage variety trials, 2014.

County	Fertilizer *Rate / Acre* *Grade*	Topdress *Rate / Acre* *%N*	Soil Type	Planting Date	Harvest Date
Columbus	10 gal 3-18-18	55 gal 25%	Rains fine sandy loam	10-Apr	13-Aug
Duplin	6 tons poultry litter	30 gal 30%	Rains fine sandy loam	29-Apr	4-Sep
Lenoir	300 lb 10-0-30 12% S	50 gal 30%	Goldsboro loamy sand	12-Apr	28-Aug
Robeson	125 lb 0-0-60	61 gal 30%	Rains sandy loam	11-Apr	21-Aug
Rowan	100 lb 0-0-60 150 lb 18-46-0	40 gal 30%	Davidson clay loam	24-Apr	Silage: 25-Aug Grain: 18-Sep
Union	4 tons poultry litter	250 lb 32-12.5-10 4% S	Badin channery silty clay loam	25-Apr	22-Sep
Washington	0.5 ton 13-33-12	35 gal 30%	Portsmouth fine sandy loam	14-Apr	3-Sep

Table 3. Soil test results for corn and corn silage sites in the North Carolina Official Variety Trials, 2014.

County	HM %	W-V	CEC	BS %	Ac	pH	P-I	K-I	Ca %	Mg %	Mn-I	Zn-I	Cu-I
Columbus	5.23	0.89	8.6	55	3.8	5.3	125	104	45	4	37	169	68
Duplin	1.74	1.15	7.0	80	1.4	6.2	180	74	65	9	44	163	155
Lenoir	2.52	1.11	7.5	74	2.0	5.5	109	82	50	18	40	100	50
Robeson	0.92	1.21	4.5	65	1.6	5.5	72	53	47	12	59	118	50
Rowan	0.32	1.04	7.8	85	1.2	6.1	43	27	55	29	1002	132	180
Union	0.51	0.75	17.1	87	2.3	5.5	480	291	60	18	261	950	1000
Washington	3.28	0.94	9.7	80	2.0	5.7	85	81	57	19	29	39	46

Table 4. Multiple year STATEWIDE performance of EARLY maturing (105-109 day) corn hybrids across North Carolina.

Brand-Hybrid or Hybrid	Yield *bu / A*	Moisture *%*	Ear Ht *inches*
THREE YEAR MEAN - 2012, 2013, 2014			
Augusta A5658GTCBLL	183.5	6.5	41.9
TWO YEAR MEAN - 2013, 2014			
Augusta A5658GTCBLL	194.7	8.6	44.2

Three year data includes **8** environments; Two year data includes **6** enviornments

Table 5. STATEWIDE performance of EARLY maturing (105-109 day) corn hybrids across three environments in North Carolina, 2014.

Brand-Hybrid or Hybrid	Yield *bu / A*	Moisture *%*	Ear Ht *inches*
REV 18BHR84	**190.2 ****	17.3	39.7
TA 583-22DP	**189.9 ***	16.9	41.0
Augusta A5658GTCBLL	**187.0 ***	17.0	44.3
Armor AXC3108	186.4 *	17.6	35.3
Seed Consultants SCS 1094AM	184.8 *	17.4	39.7
Armor AXC2108	183.9 *	16.9	41.0
Armor AXT4109	181.9 *	17.5	38.7
Beck's 5140HR	179.4 *	17.1	43.7
Dyna-Gro D46SS46	178.7 *	17.0	41.7
Pioneer P0604AM	174.8	16.5	40.7
TA 566-31	174.8	16.8	40.7
Armor 0700	169.4	17.0	43.0
MEAN	**181.8**	**17.1**	**40.8**
avg CV (%)	9.2	2.9	7.0
SEM	5.1	0.2	1.7
LSD (p=0.10)	12.4	0.4	4.0
df LSD	22	22	22

Highest yielder. *Not significantly different from highest yielder. **BOLD entries comprise the upper quartile.
avg CV - coefficient of variation averaged across 3 environments
SEM - standard error of hybrid mean across 3 environments
LSD - smallest difference between hybrid means considered different, based on 3 environments

Table 6. Multiple year STATEWIDE performance of MEDIUM maturing (110-115 day) corn hybrids across North Carolina.

Brand-Hybrid or Hybrid	Yield *bu / A*	Moisture *%*	Ear Ht *inches*
THREE YEAR MEAN - 2012, 2013, 2014			
Dyna-Gro D55VP77VT3P	175.6 **	7.1	37.5
Seed Consultants SCS 1131AM-R	174.8 *	7.4	48.8
Dekalb DKC64-69	173.0 *	7.1	41.8
Dyna-Gro D52VC91VT2P	170.2 *	7.0	38.9
Pioneer P1319HR	170.0 *	7.1	44.3
N79Z 3000GT Brand	165.5	7.4	46.4
N68B 3111 Brand	150.4	6.9	37.8
MEAN	**168.5**	**7.1**	**42.2**
SEM	2.8		
LSD (p=0.10)	6.6		
df LSD	96		
TWO YEAR MEAN - 2013, 2014			
Dyna-Gro D55QC73VIP3110	187.3 **	10.3	43.6
Seed Consultants SCS 1131AM-R	185.7 *	10.4	49.6
Dyna-Gro D55VP77VT3P	181.1 *	10.0	37.1
Seed Consultants SCS 1154AM	180.6 *	10.5	46.3
Pioneer P1319HR	177.3	9.9	45.8
Augusta A5565VT2Pro	176.1	10.1	37.0
B-H Genetics BH 8928VTTP	175.6	10.4	47.8
Dekalb DKC64-69	174.8	10.0	42.6
N79Z 3000GT Brand	174.4	10.5	46.8
B-H Genetics BH 8550SSS	173.6	10.1	45.2
Dekalb DKC62-08	172.0	10.0	44.3
Dyna-Gro D53VC13VT2P	171.4	10.0	41.8
Dyna-Gro D52VC91VT2P	170.6	9.9	39.3
N74R 3000GT Brand	168.7	10.4	44.6
Mycogen 2V777	166.4	9.9	43.0
Armor 1555	165.9	10.2	37.8
Armor 1550	164.0	10.0	38.8
Seed Consultants SC 11AGT43	163.5	10.1	46.7
Mycogen 2V714	159.0	9.9	44.8
N68B 3111 Brand	155.9	9.7	37.8
Armor 1262	152.9	9.5	41.5
MEAN	**171.3**	**10.1**	**43.0**
SEM	3.3		
LSD (p=0.10)	7.7		
df LSD	220		

**Highest yielder. *Not significantly different from highest yielder.
SEM - standard error of hybrid mean across environments
LSD - smallest difference between hybrid means considered different, across environments
Three year data = 17 environments; Two year data = 12 enviornments

Table 7. STATEWIDE performance of MEDIUM maturing (110-115 day) corn hybrids across six environments in North Carolina, 2014.

Brand-Hybrid or Hybrid	Yield *bu / A*		Moisture *%*	Ear Ht *inches*
Dyna-Gro D55QC73VIP3110	**189.2**	**	20.4	43.8
B-H Genetics BH 8830VTTP	**184.3**	*	20.1	43.0
REV 25BHR44	**183.8**	*	20.9	46.5
REV 23BHR55	**183.1**	*	20.1	46.0
Seed Consultants SCS 1154AM	**182.7**	*	20.8	46.8
B-H Genetics BH 8900VIP3111	**182.4**	*	21.1	47.3
REV 24BHR93	**181.4**	*	20.4	48.0
Dekalb DKC64-69	**181.1**	*	19.8	45.3
Pioneer P1529YHR	**181.1**	*	20.3	46.0
TA 765-30	**180.9**	*	20.4	45.2
Pioneer P1197AM	**180.5**	*	19.3	44.7
Pioneer P1319HR	**180.5**	*	19.7	47.2
Seed Consultants SCS 1131AM-R	**179.4**	*	20.4	50.3
B-H Genetics BH 8700VTTP	**178.7**		19.9	37.3
Mycogen 2C786	**177.9**		20.9	40.3
B-H Genetics BH 8660VTTP	177.2		20.5	46.2
B-H Genetics BH 8550SSS	174.7		19.9	47.7
Dyna-Gro D55VP77VT3P	174.5		19.9	37.8
Mycogen 2C797	173.3		20.4	40.3
Dekalb DKC62-08	172.6		19.7	44.5
Phoenix 7914A4 Viptera3111	172.5		20.9	46.3
Seed Consultants SC 11AQ15	171.9		20.4	45.7
Augusta A5664GT3000	170.8		20.4	43.2
Dyna-Gro D53VC13VT2P	170.7		19.8	42.5
Dekalb DKC62-77	169.7		19.2	43.2
Mycogen 2J794	169.4		20.7	44.3
Armor 1414	169.0		19.9	43.7
Augusta A5565VT2Pro	168.6		20.1	38.0
Doebler's RPM 5215YHR	168.5		19.8	41.3
Beck's 5509VR	168.3		18.8	41.3
N74R 3000GT Brand	167.7		20.6	44.5
Augusta A6664VT3Pro	167.4		19.5	42.2
HT-7261VT3PRORIB	167.3		19.5	41.7
Doebler's RPM 685YHR	167.1		20.0	43.3
Beck's 6948A3	167.0		20.5	42.7
Armor 1330	167.0		20.0	43.3
Armor 1555	166.9		20.2	38.5
Seed Consultants SC 11AQ35	166.7		19.2	45.7
Dekalb DKC61-54	166.1		19.3	42.2
TA 753-22DP	165.3		19.7	42.5
Mycogen 2V777	165.2		19.9	42.8
TA 683-13VP	164.2		19.2	44.8
B-H Genetics BH 8928VTTP	163.4		20.5	50.2
N79Z 3000GT Brand	162.7		20.8	45.0
Beck's 6272AM-R	162.3		19.7	44.5
Armor AXC4114W	161.7		19.6	38.7
Doebler's RPM 5015YHR	161.5		19.6	38.5
Mycogen 2V714	161.2		19.6	44.8
Dyna-Gro D52VC91VT2P	160.2		19.6	40.5
Armor 1550	160.0		19.8	39.7
Seed Consultants SC 11AGT43	159.8		20.2	47.0
Beck's 6575HR	158.4		20.9	42.7
Beck's 6348A3	158.2		20.0	43.0
Armor AXT3111	157.6		19.5	40.8
Armor 1314	152.3		18.8	41.5
TA 647-22DP	152.1		19.0	43.0
Armor 1262	150.9		18.9	42.5
Armor AXC4110	149.9		18.4	41.3
N68B 3111 Brand	149.7		19.1	38.3
MEAN	**169.1**		**19.9**	**43.4**
avg CV (%)	11.1		3.2	10.3
SEM	4.4		0.2	1.8
LSD (p=0.10)	10.3		0.5	4.3
df LSD	290		290	285

Highest yielder. *Not significantly different from highest yielder. **BOLD entries comprise the upper quartile.

avg CV - coefficient of variation averaged across all 6 environments.

SEM - standard error of hybrid mean across all 6 environments.

LSD - measured differences between hybrids across all 6 environments.

Table 8. Multiple year STATEWIDE performance of LATE maturing (>115 day) corn hybrids across North Carolina.

Brand-Hybrid or Hybrid	Yield *bu / A*	Moisture *%*	Ear Ht *inches*
THREE YEAR MEAN - 2012, 2013, 2014			
Dyna-Gro D57VP51VT3P	171.1 **	7.6	38.8
Seed Consultants SCS 11HR63	164.4	7.6	46.3
Seed Consultants SC 11AQ72	162.7	7.8	46.4
N78S 3111 Brand	153.7	7.6	41.3
MEAN	**163.0**	**7.7**	**43.2**
SEM	2.3		
LSD (p=0.10)	5.4		
df LSD	48		
TWO YEAR MEAN - 2013, 2014			
Dyna-Gro D57VP51VT3P	176.5 **	10.7	38.5
Seed Consultants SC 11AQ72	173.9 *	11.0	46.7
Seed Consultants SCS 11HR63	173.4 *	10.6	46.0
Pioneer P1739HR	172.4 *	10.7	45.7
Dyna-Gro D56VC46VT2P	171.1 *	11.0	40.4
Dyna-Gro D57VP75VT3P	169.4	10.7	45.0
Dekalb DKC67-58	166.9	10.7	39.4
Augusta A7767VT3Pro	165.5	10.8	39.8
Doebler's RPM 765YHR	165.1	10.9	44.4
Phoenix 6542A4 Viptera3111	162.1	10.8	40.9
N78S 3111 Brand	157.9	10.7	41.2
MEAN	**168.6**	**10.8**	**42.5**
SEM	2.5		
LSD (p=0.10)	5.9		
df LSD	110		

**Highest yielder. *Not significantly different from highest yielder.
SEM - standard error of hybrid mean across environments
LSD - smallest difference between hybrid means considered different, across environments
Three year data = 17 environments; Two year data = 12 enviornments

Table 9. STATEWIDE performance of LATE maturing (>115 day) corn hybrids across six environments in North Carolina, 2014.

Brand-Hybrid or Hybrid	Yield *bu / A*	Moisture *%*	Ear Ht *inches*
Dyna-Gro D57VP51VT3P	**171.4 ****	21.2	36.2
Seed Consultants SC 11AQ72	**169.7 ***	21.8	47.0
TA 784-13VP	**169.0 ***	21.2	43.2
Armor 1880	**168.7 ***	21.2	43.2
Dyna-Gro D56VC46VT2P	**168.6 ***	21.9	39.2
Seed Consultants SCS 11HR63	**168.6 ***	21.2	44.2
Doebler's RPM 5915HXR	**166.8 ***	21.4	42.7
Phoenix 6706A4 Viptera3111	166.8 *	21.3	41.0
REV 27HR83	166.5 *	21.1	43.2
Dekalb DKC68-92	166.0 *	21.3	38.8
Armor 1616	164.7 *	21.2	39.3
Dyna-Gro D57VP75VT3P	164.6 *	21.1	44.0
Augusta A8868VT3	164.5 *	20.9	44.5
Augusta A7767VT3Pro	163.7 *	21.4	40.5
Doebler's RPM 765YHR	163.7 *	21.5	45.0
Pioneer P1739HR	163.4 *	21.1	43.3
N83D 3000GT Brand	162.6 *	22.6	39.2
Dekalb DKC67-58	162.0 *	21.1	38.7
TA 774-13VP	161.6	21.3	39.8
Seed Consultants SC 11AGT74	160.9	22.6	39.0
Phoenix 6542A4 Viptera3111	159.2	21.3	41.2
Pioneer P1775YHR	159.1	21.3	42.7
Augusta A5566GTCBLL	157.3	22.5	39.3
Armor AXC3117	157.0	21.0	44.0
N78S 3111 Brand	149.4	21.1	38.3
Beck's 6778AM	138.3	20.8	38.3
MEAN	**162.9**	**21.4**	**41.4**
avg CV (%)	11.4	3.6	10.2
SEM	4.0	0.2	1.7
LSD (p=0.10)	9.5	0.5	4.0
df LSD	125	125	125

Highest yielder. *Not significantly different from highest yielder. **BOLD entries comprise the upper quartile.
avg CV - coefficient of variation averaged across all 6 environments.
SEM - standard error of hybrid mean across all 6 environments.
LSD - measured differences between hybrids across all 6 environments.

Table 10. Multiple year performance of MEDIUM maturing (110-115 day) corn hybrids in the TIDEWATER region of North Carolina.

Brand-Hybrid or Hybrid	Yield *bu / A*		Moisture *%*	Ear Ht *inches*
THREE YEAR MEAN - 2012, 2013, 2014				
Seed Consultants SCS 1131AM-R	177.1	**	11.2	37.0
Dyna-Gro D55VP77VT3P	171.7	*	10.4	31.0
Dyna-Gro D52VC91VT2P	170.2	*	10.7	36.0
Pioneer P1319HR	166.8	*	10.8	36.0
N79Z 3000GT Brand	162.6	*	10.6	32.5
Dekalb DKC64-69	157.7		10.5	37.0
N68B 3111 Brand	137.4		10.5	29.5
MEAN	**163.4**		**10.7**	**34.1**
SEM	7.7			
LSD (p=0.10)	18.8			
df LSD	12			
TWO YEAR MEAN - 2013, 2014				
Dyna-Gro D55QC73VIP3110	190.4	**	10.9	35.0
Seed Consultants SCS 1131AM-R	188.1	*	11.2	37.0
Pioneer P1319HR	175.3	*	10.8	36.0
Dyna-Gro D55VP77VT3P	175.2	*	10.4	31.0
Seed Consultants SCS 1154AM	172.1	*	11.0	41.0
N79Z 3000GT Brand	170.6		10.6	32.5
B-H Genetics BH 8928VTTP	169.1		11.3	39.0
Seed Consultants SC 11AGT43	163.7		11.0	39.0
Dyna-Gro D52VC91VT2P	162.9		10.7	36.0
Augusta A5565VT2Pro	162.5		10.7	32.5
N74R 3000GT Brand	161.8		11.0	34.5
Dekalb DKC62-08	160.9		10.5	38.5
Armor 1550	158.0		10.3	35.0
Mycogen 2V777	155.4		10.2	37.0
Armor 1555	155.2		10.9	33.0
Dekalb DKC64-69	153.3		10.5	37.0
B-H Genetics BH 8550SSS	148.7		11.1	40.0
Dyna-Gro D53VC13VT2P	148.2		10.5	31.0
N68B 3111 Brand	144.5		10.5	29.5
Mycogen 2V714	143.0		10.3	41.0
Armor 1262	140.1		10.3	35.0
MEAN	**161.9**		**10.7**	**35.7**
SEM	7.7			
LSD (p=0.10)	18.6			
df LSD	20			

**Highest yielder. *Not significantly different from highest yielder.
SEM - standard error of hybrid mean across environments
LSD - smallest difference between hybrid means considered different, across environments
Three year data = 3 environments; Two year data = 2 enviornments

Table 11. Performance of MEDIUM maturing (110-115 day) corn hybrids at a single environment in the TIDEWATER region of North Carolina, 2014.

Brand/Hybrid or Hybrid	Yield *bu / A*		Moisture *%*
Pioneer P1529YHR	**183.8**	**	21.9
Armor AXC4114W	**181.7**	*	20.8
Dekalb DKC64-69	**180.9**	*	20.9
Dyna-Gro D55QC73VIP3110	**180.5**	*	21.6
Mycogen 2C786	**180.4**	*	21.8
Armor 1414	**171.1**	*	21.8
REV 25BHR44	**170.2**	*	21.7
TA 765-30	**167.3**	*	21.4
Armor 1314	**167.2**	*	19.9
Dekalb DKC62-08	**167.1**	*	20.8
Pioneer P1197AM	**166.5**	*	20.4
Dyna-Gro D55VP77VT3P	**166.1**	*	20.7
Pioneer P1319HR	**165.6**	*	21.4
Augusta A6664VT3Pro	**165.5**	*	20.8
Seed Consultants SCS 1131AM-R	**164.2**	*	22.3
Armor 1555	164.0	*	21.6
Beck's 6272AM-R	163.8	*	20.7
Seed Consultants SC 11AGT43	162.5	*	21.9
Seed Consultants SC 11AQ15	162.0	*	21.4
Mycogen 2C797	160.9	*	22.4
B-H Genetics BH 8830VTTP	160.7	*	20.5
REV 24BHR93	160.4	*	22.5
Phoenix 7914A4 Viptera3111	160.2	*	21.6
Mycogen 2V714	158.5	*	20.4
Mycogen 2J794	158.4	*	21.5
Augusta A5664GT3000	156.6	*	21.3
Dyna-Gro D53VC13VT2P	156.6	*	20.9
TA 753-22DP	156.2	*	21.2
Beck's 6948A3	156.1	*	21.5
N74R 3000GT Brand	154.8		21.9
REV 23BHR55	152.5		21.3
Augusta A5565VT2Pro	152.4		21.2
Beck's 5509VR	152.3		19.6
Doebler's RPM 685YHR	152.1		21.7
Mycogen 2V777	151.9		20.2
Armor 1550	149.6		20.5
TA 683-13VP	149.2		21.0
B-H Genetics BH 8660VTTP	148.8		22.7
B-H Genetics BH 8928VTTP	148.8		22.4
Seed Consultants SC 11AQ35	147.1		20.5
Doebler's RPM 5215YHR	146.0		20.7
B-H Genetics BH 8700VTTP	145.5		20.6
HT-7261VT3PRORIB	145.4		20.3
Beck's 6575HR	143.6		22.5
Dekalb DKC61-54	143.0		19.9
Seed Consultants SCS 1154AM	143.0		21.9
B-H Genetics BH 8550SSS	142.0		22.1
B-H Genetics BH 8900VIP3111	141.9		21.7
Dyna-Gro D52VC91VT2P	140.2		21.3
N79Z 3000GT Brand	140.1		21.1
Dekalb DKC62-77	137.1		20.5
Armor AXT3111	136.3		20.6
Armor 1262	134.1		20.4
Armor AXC4110	133.8		19.7
Beck's 6348A3	133.5		20.8
Doebler's RPM 5015YHR	131.5		20.5
TA 647-22DP	128.2		20.0
N68B 3111 Brand	124.8		20.9
Armor 1330	121.0		21.1
MEAN	**154.0**		**21.1**
CV (%)	13.9		3.3
avg SEM	12.3		0.4
avg LSD (p=0.10)	28.5		0.9
df LSD	114		114

Highest yielder. *Not significantly different from highest yielder. **BOLD entries comprise the upper quartile.

CV - trial variability as a percent of mean yield for the trial

avg SEM - average standard error of hybrid mean based on within-trial variation

avg LSD - smallest difference between hybrids considered significant, averaged within a single trial

Table 12. Multiple year performance of LATE maturing (>115 day) corn hybrids in the TIDEWATER region of North Carolina.

Brand-Hybrid or Hybrid	Yield *bu / A*		Moisture *%*	Ear Ht *inches*
THREE YEAR MEAN - 2012, 2013, 2014				
Dyna-Gro D57VP51VT3P	162.8	**	11.2	29.5
Seed Consultants SCS 11HR63	156.1	*	10.8	38.0
Seed Consultants SC 11AQ72	151.5	*	11.1	39.0
N78S 3111 Brand	144.1		10.8	34.5
MEAN	**153.6**		**11.0**	**35.3**
SEM	5.1			
LSD (p=0.10)	13.8			
df LSD	6			
TWO YEAR MEAN - 2013, 2014				
Dyna-Gro D57VP75VT3P	164.3	**	11.1	36.0
Seed Consultants SCS 11HR63	162.6	*	10.8	38.0
Dyna-Gro D57VP51VT3P	160.7	*	11.2	29.5
Augusta A7767VT3Pro	159.6	*	11.3	33.5
Doebler's RPM 765YHR	159.1	*	11.1	40.5
Pioneer P1739HR	159.0	*	11.2	40.5
Dekalb DKC67-58	158.9	*	11.2	33.5
Dyna-Gro D56VC46VT2P	156.2	*	11.4	32.0
Seed Consultants SC 11AQ72	154.7	*	11.1	39.0
Phoenix 6542A4 Viptera3111	153.9	*	11.5	35.0
N78S 3111 Brand	147.2		10.8	34.5
MEAN	**157.8**		**11.2**	**35.6**
SEM	4.7			
LSD (p=0.10)	12.0			
df LSD	10			

**Highest yielder. *Not significantly different from highest yielder.
SEM - standard error of hybrid mean across environments
LSD - smallest difference between hybrid means considered different, across environments
Three year data = 3 environments; Two year data = 2 enviornments

Table 13. Performance of LATE maturing (>115 day) corn hybrids at a single environment in the TIDEWATER region of North Carolina, 2014.

Brand/Hybrid or Hybrid	Yield *bu / A*	Moisture *%*
Seed Consultants SCS 11HR63	**172.2 ****	21.4
Dyna-Gro D57VP75VT3P	**169.5 ***	21.9
TA 784-13VP	**168.2 ***	22.1
Augusta A8868VT3	**167.3 ***	22.7
Armor 1880	**162.4 ***	21.7
Phoenix 6706A4 Viptera3111	**160.9 ***	21.4
Dekalb DKC68-92	**155.5 ***	22.3
Doebler's RPM 5915HXR	155.3 *	22.7
Pioneer P1739HR	154.6 *	22.2
Dyna-Gro D56VC46VT2P	154.2 *	22.6
REV 27HR83	153.7	22.1
Dekalb DKC67-58	153.1	22.2
Augusta A5566GTCBLL	152.2	22.7
Augusta A7767VT3Pro	151.6	22.4
Doebler's RPM 765YHR	151.1	22.1
Armor 1616	150.4	21.4
Armor AXC3117	150.2	21.9
Seed Consultants SC 11AGT74	148.8	23.3
Dyna-Gro D57VP51VT3P	147.4	22.1
N83D 3000GT Brand	147.0	23.7
N78S 3111 Brand	146.0	21.4
Seed Consultants SC 11AQ72	145.6	22.0
TA 774-13VP	142.9	22.3
Pioneer P1775YHR	138.7	21.9
Phoenix 6542A4 Viptera3111	138.6	22.8
Beck's 6778AM	124.4	21.5
MEAN	**152.4**	**22.2**
CV (%)	9.5	3.0
avg SEM	8.4	0.4
avg LSD (p=0.10)	18.4	0.8
df LSD	50	50

Highest yielder. *Not significantly different from highest yielder. **BOLD entries comprise the upper quartile.
CV - trial variability as a percent of mean yield for the trial
avg SEM - average standard error of hybrid mean based on within-trial variation
avg LSD - smallest difference between hybrids considered significant, averaged within a single trial

Table 14. Multiple year performance of EARLY maturing (105-109 day) corn hybrids in the COASTAL PLAIN region of North Carolina.

Brand-Hybrid or Hybrid	Yield *bu / A*	Moisture *%*	Ear Ht *inches*
THREE YEAR MEAN - 2012, 2013, 2014			
Augusta A5658GTCBLL	185.7	8.5	43.8
TWO YEAR MEAN - 2013, 2014			
Augusta A5658GTCBLL	195.1	8.5	43.8

Three year data includes **5** environments; Two year data includes **4** enviornments

Table 15. Performance of EARLY maturing (105-109 day) corn hybrids across two environments in the COASTAL PLAIN region of North Carolina, 2014.

Brand/Hybrid or Hybrid	Yield *bu / A*	Moisture *%*
TA 583-22DP	**198.4 ****	16.7
Seed Consultants SCS 1094AM	**192.7 ***	17.8
Augusta A5658GTCBLL	**190.6 ***	16.8
REV 18BHR84	190.5 *	17.6
Armor AXC3108	187.7 *	17.6
Armor AXC2108	186.9 *	16.6
Armor AXT4109	184.1	17.8
Beck's 5140HR	180.5	17.0
TA 566-31	180.4	16.7
Dyna-Gro D46SS46	180.3	16.8
Pioneer P0604AM	180.0	16.3
Armor 0700	176.1	16.9
MEAN	**185.7**	**17.1**
avg CV (%)	8.1	3.4
SEM	5.4	0.2
LSD (p=0.10)	13.7	0.6
df LSD	11	11.0

Highest yielder. *Not significantly different from highest yielder. **BOLD entries comprise the upper quartile.
avg CV - coefficient of variation averaged across 2 environments
SEM - standard error of hybrid mean across 2 environments
LSD - smallest difference between hybrid means considered different, based on 2 environments

Table 16. Multiple year performance of MEDIUM maturing (110-115 day) corn hybrids in the COASTAL PLAIN region of North Carolina.

Brand-Hybrid or Hybrid	Yield *bu / A*		Moisture *%*	Ear Ht *inches*
THREE YEAR MEAN - 2012, 2013, 2014				
Dyna-Gro D55VP77VT3P	176.6	**	10.2	37.8
Dekalb DKC64-69	176.5	*	10.2	42.8
Seed Consultants SCS 1131AM-R	174.4	*	10.6	51.5
Pioneer P1319HR	169.8	*	10.0	47.1
Dyna-Gro D52VC91VT2P	169.1	*	10.0	40.3
N79Z 3000GT Brand	167.1		10.8	49.4
N68B 3111 Brand	152.4		9.9	38.6
MEAN	**169.4**		**10.2**	**43.9**
SEM	3.5			
LSD (p=0.10)	8.3			
df LSD	60			
TWO YEAR MEAN - 2013, 2014				
Seed Consultants SCS 1131AM-R	183.3	**	10.6	51.5
Dyna-Gro D55QC73VIP3110	183.0	*	10.6	44.8
Dyna-Gro D55VP77VT3P	179.8	*	10.2	37.8
Seed Consultants SCS 1154AM	179.6	*	10.7	46.4
Augusta A5565VT2Pro	177.6	*	10.4	37.9
Dekalb DKC64-69	176.3	*	10.2	42.8
B-H Genetics BH 8550SSS	176.0	*	10.3	45.3
Pioneer P1319HR	174.8	*	10.0	47.1
N79Z 3000GT Brand	172.9		10.8	49.4
Dyna-Gro D53VC13VT2P	172.1		10.2	43.3
Dekalb DKC62-08	172.0		10.2	44.9
B-H Genetics BH 8928VTTP	171.7		10.6	48.3
Dyna-Gro D52VC91VT2P	170.6		10.0	40.3
Armor 1550	164.3		10.3	38.3
Armor 1555	164.0		10.4	38.6
N74R 3000GT Brand	163.0		10.6	46.3
Mycogen 2V777	162.6		10.1	42.9
Seed Consultants SC 11AGT43	159.5		10.2	46.9
Mycogen 2V714	157.4		10.1	44.6
Armor 1262	155.0		9.7	41.9
N68B 3111 Brand	153.6		9.9	38.6
MEAN	**170.0**		**10.3**	**43.7**
SEM	4.2			
LSD (p=0.10)	9.7			
df LSD	140			

**Highest yielder. *Not significantly different from highest yielder.
SEM - standard error of hybrid mean across environments
LSD - smallest difference between hybrid means considered different, across environments
Three year data = 11 environments; Two year data = 8 enviornments

Table 17. Performance of MEDIUM maturing (110-115 day) corn across four environments in the Coastal Plain region of North Carolina, 2014.

Brand/Hybrid or Hybrid	Yield *bu / A*		Moisture *%*
Dyna-Gro D55QC73VIP3110	**194.0**	**	21.0
B-H Genetics BH 8900VIP3111	**192.1**	*	21.6
TA 765-30	**188.8**	*	21.1
Seed Consultants SCS 1154AM	**186.0**	*	21.3
B-H Genetics BH 8830VTTP	**185.0**	*	20.7
REV 24BHR93	**184.9**	*	21.0
REV 25BHR44	**183.5**	*	21.4
Pioneer P1319HR	**183.3**	*	19.9
Seed Consultants SCS 1131AM-R	**183.3**	*	21.0
Pioneer P1529YHR	**182.1**	*	20.7
Dekalb DKC64-69	**182.0**	*	20.3
REV 23BHR55	**181.9**	*	20.5
Pioneer P1197AM	**181.1**		19.5
B-H Genetics BH 8700VTTP	**180.3**		20.4
B-H Genetics BH 8660VTTP	**180.0**		20.9
B-H Genetics BH 8550SSS	178.1		20.3
Dekalb DKC62-08	177.8		20.2
Mycogen 2C797	177.3		20.7
Mycogen 2C786	176.9		21.3
Armor 1330	176.3		20.7
Dyna-Gro D55VP77VT3P	175.6		20.3
Phoenix 7914A4 Viptera3111	174.5		21.5
Augusta A5565VT2Pro	174.4		20.7
Dyna-Gro D53VC13VT2P	173.6		20.3
Dekalb DKC62-77	173.2		19.5
Augusta A6664VT3Pro	170.4		20.2
Doebler's RPM 685YHR	170.0		20.3
Beck's 5509VR	169.8		19.0
Seed Consultants SC 11AQ15	169.5		20.8
TA 753-22DP	169.1		20.3
Beck's 6948A3	168.9		20.9
Mycogen 2J794	168.9		20.9
Armor 1414	168.2		20.1
HT-7261VT3PRORIB	167.9		19.7
Seed Consultants SC 11AQ35	167.4		19.3
Doebler's RPM 5215YHR	167.4		20.3
Dekalb DKC61-54	166.8		19.7
Armor 1555	166.7		20.6
Augusta A5664GT3000	166.1		20.8
Beck's 6272AM-R	165.4		20.3
Dyna-Gro D52VC91VT2P	165.2		19.9
N74R 3000GT Brand	163.6		20.9
B-H Genetics BH 8928VTTP	162.9		21.0
Doebler's RPM 5015YHR	162.7		20.0
TA 683-13VP	162.7		19.5
Beck's 6575HR	162.3		21.2
Mycogen 2V777	161.8		20.1
N79Z 3000GT Brand	161.8		21.4
Armor 1550	161.8		20.3
Armor AXC4114W	161.0		20.1
Armor AXT3111	159.4		19.9
Mycogen 2V714	159.2		20.0
Seed Consultants SC 11AGT43	158.9		20.3
Armor 1262	157.3		19.2
Beck's 6348A3	154.9		20.5
TA 647-22DP	154.2		19.3
Armor 1314	152.7		19.1
Armor AXC4110	152.7		18.5
N68B 3111 Brand	149.9		19.6
MEAN	**170.7**		**20.4**
avg CV (%)	10.9		3.3
SEM	5.4		0.3
LSD (p=0.10)	12.7		0.7
df LSD	174		174

Highest yielder. *Not significantly different from highest yielder. **BOLD entries comprise the upper quartile.

avg CV - coefficient of variation averaged across 4 environments

SEM - standard error of hybrid mean across 4 environments

LSD - smallest difference between hybrid means considered different, based on 4 environments

Table 18. Multiple year performance of LATE maturing (>115 day) corn hybrids in the COASTAL PLAIN region of North Carolina.

Brand-Hybrid or Hybrid	Yield *bu / A*		Moisture *%*	Ear Ht *inches*
THREE YEAR MEAN - 2012, 2013, 2014				
Dyna-Gro D57VP51VT3P	173.0	**	10.7	40.4
Seed Consultants SCS 11HR63	169.5	*	10.7	47.0
Seed Consultants SC 11AQ72	166.9	*	11.1	47.1
N78S 3111 Brand	156.7		10.7	42.4
MEAN	**166.5**		**10.8**	**44.2**
SEM	2.9			
LSD (p=0.10)	6.9			
df LSD	30			
TWO YEAR MEAN - 2013, 2014				
Seed Consultants SC 11AQ72	178.3	**	11.1	47.1
Dyna-Gro D57VP51VT3P	178.0	*	10.7	40.4
Pioneer P1739HR	177.7	*	10.7	47.9
Seed Consultants SCS 11HR63	177.5	*	10.7	47.0
Dyna-Gro D56VC46VT2P	172.7	*	11.2	41.8
Dyna-Gro D57VP75VT3P	170.3		10.7	45.6
Dekalb DKC67-58	165.6		10.7	40.4
Doebler's RPM 765YHR	164.8		10.9	44.4
Augusta A7767VT3Pro	164.7		10.8	40.0
Phoenix 6542A4 Viptera3111	162.0		10.7	42.0
N78S 3111 Brand	159.1		10.7	42.4
MEAN	**170.1**		**10.8**	**43.5**
SEM	3.3			
LSD (p=0.10)	7.8			
df LSD	70			

**Highest yielder. *Not significantly different from highest yielder.
SEM - standard error of hybrid mean across environments
LSD - smallest difference between hybrid means considered different, across environments
Three year data = 11 environments; Two year data = 8 enviornments

Table 19. Performance of LATE maturing (>115 day) corn hybrids across four environments in the COASTAL PLAIN region of North Carolina, 2014.

Brand/Hybrid or Hybrid	Yield *bu / A*		Moisture *%*
Dyna-Gro D57VP51VT3P	**177.9**	**	21.1
Armor 1880	**174.1**	*	21.5
Doebler's RPM 5915HXR	**172.6**	*	21.3
Dyna-Gro D56VC46VT2P	**172.3**	*	22.1
Seed Consultants SC 11AQ72	**171.0**	*	22.0
TA 784-13VP	**169.3**	*	21.0
Dekalb DKC68-92	**169.2**	*	21.3
Seed Consultants SCS 11HR63	168.7	*	21.3
Doebler's RPM 765YHR	168.7	*	21.5
Phoenix 6706A4 Viptera3111	168.4	*	21.4
REV 27HR83	168.0	*	21.0
TA 774-13VP	167.7	*	21.4
Armor 1616	167.3	*	21.3
Augusta A7767VT3Pro	167.1	*	21.4
Pioneer P1739HR	165.7	*	21.1
N83D 3000GT Brand	164.5		22.6
Phoenix 6542A4 Viptera3111	164.1		21.1
Seed Consultants SC 11AGT74	163.6		22.8
Pioneer P1775YHR	163.0		21.3
Dyna-Gro D57VP75VT3P	161.5		21.1
Dekalb DKC67-58	161.5		21.1
Augusta A8868VT3	160.6		20.7
Augusta A5566GTCBLL	158.7		22.7
Armor AXC3117	158.6		20.8
N78S 3111 Brand	149.4		21.2
Beck's 6778AM	139.0		20.7
MEAN	**165.1**		**21.4**
avg CV (%)	12.0		3.7
SEM	5.6		0.3
LSD (p=0.10)	13.1		0.6
df LSD	75		75

Highest yielder. *Not significantly different from highest yielder. **BOLD entries comprise the upper quartile.
avg CV - coefficient of variation averaged across 4 environments
SEM - standard error of hybrid mean across 4 environments
LSD - smallest difference between hybrid means considered different, based on 4 environments

Table 20. Multiple year performance of EARLY maturing (105-109 day) corn hybrids in the PIEDMONT region of North Carolina.

Brand-Hybrid or Hybrid	Yield *bu / A*	Moisture *%*	Ear Ht *inches*
THREE YEAR MEAN - 2012, 2013, 2014			
Augusta A5658GTCBLL	180.4	8.7	45.0
TWO YEAR MEAN - 2013, 2014			
Augusta A5658GTCBLL	194.3	8.7	45.0

Three year data includes **3** environments; Two year data includes **2** enviornments

Table 21. Performance of EARLY maturing (105-109 day) corn hybrids at a single environment in the PIEDMONT region of North Carolina, 2014.

Brand/Hybrid or Hybrid	Yield *bu / A*	Moisture *%*
REV 18BHR84	**195.6 ****	17.1
Armor AXC3108	**188.3 ***	17.6
Beck's 5140HR	**182.1 ***	17.1
Armor AXT4109	180.5 *	17.2
Augusta A5658GTCBLL	180.5 *	17.2
Armor AXC2108	179.5 *	17.1
Dyna-Gro D46SS46	179.5 *	17.2
TA 583-22DP	164.8	17.1
Pioneer P0604AM	162.4	16.7
Seed Consultants SCS 1094AM	162.1	17.2
TA 566-31	160.7	17.0
Armor 0700	151.4	17.1
MEAN	**173.9**	**17.1**
CV (%)	11.6	1.9
avg SEM	9.0	0.1
avg LSD (p=0.10)	20.9	0.3
df LSD	46	46

Highest yielder. *Not significantly different from highest yielder. **BOLD entries comprise the upper quartile.
CV - trial variability as a percent of mean yield for the trial
avg SEM - average standard error of hybrid mean based on within-trial variation
avg LSD - smallest difference between hybrids considered significant, averaged within a single trial

Table 22. Multiple year performance of MEDIUM maturing (110-115 day) corn hybrids in the PIEDMONT region of North Carolina.

Brand-Hybrid or Hybrid	Yield *bu / A*		Moisture *%*	Ear Ht *inches*
THREE YEAR MEAN - 2012, 2013, 2014				
Dekalb DKC64-69	178.1	**	8.60	47.5
Dyna-Gro D55VP77VT3P	175.7	*	8.70	40.5
Pioneer P1319HR	173.5	*	8.60	50.5
Seed Consultants SCS 1131AM-R	172.7	*	8.70	54.5
Dyna-Gro D52VC91VT2P	172.6	*	8.50	39.0
N79Z 3000GT Brand	162.5	*	9.10	50.5
N68B 3111 Brand	157.7		8.10	42.5
MEAN	**170.4**		**8.6**	**46.4**
SEM	6.2			
LSD (p=0.10)	15.6			
df LSD	12			
TWO YEAR MEAN - 2013, 2014				
Dyna-Gro D55QC73VIP3110	200.3	*	8.8	47.5
B-H Genetics BH 8928VTTP	196.8	*	8.8	55.0
N74R 3000GT Brand	196.3	*	9.0	48.0
Seed Consultants SCS 1154AM	193.2	*	9.0	51.5
Dyna-Gro D53VC13VT2P	192.7	*	8.5	47.0
Seed Consultants SCS 1131AM-R	192.5	*	8.7	54.5
Dyna-Gro D55VP77VT3P	192.4	*	8.7	40.5
Mycogen 2V777	191.7	*	9.0	49.5
Dekalb DKC64-69	191.5	*	8.6	47.5
B-H Genetics BH 8550SSS	190.4	*	8.5	50.0
Pioneer P1319HR	188.6	*	8.6	50.5
Augusta A5565VT2Pro	185.0	*	8.6	38.0
N79Z 3000GT Brand	184.4	*	9.1	50.5
Armor 1555	183.8	*	8.8	39.0
Dekalb DKC62-08	183.7	*	8.4	47.5
Mycogen 2V714	180.9		8.7	49.0
Dyna-Gro D52VC91VT2P	179.0		8.5	39.0
Seed Consultants SC 11AGT43	178.3		8.9	53.5
N68B 3111 Brand	175.9		8.1	42.5
Armor 1550	169.4		8.6	44.5
Armor 1262	158.7		8.2	46.5
MEAN	**186.0**		**8.7**	**47.2**
SEM	7.4			
LSD (p=0.10)	18.0			
df LSD	20			

**Highest yielder. *Not significantly different from highest yielder.
SEM - standard error of hybrid mean across environments
LSD - smallest difference between hybrid means considered different, across environments
Three year data = 3 environments; Two year data = 2 enviornments

Table 23. Performance of MEDIUM maturing (110-115 day) corn hybrids at a single environment in the Piedmont region of North Carolina, 2014.

Brand/Hybrid or Hybrid	Yield *bu / A*		Moisture *%*
REV 23BHR55	**206.2**	**	17.4
B-H Genetics BH 8830VTTP	**198.7**	*	17.3
Augusta A5664GT3000	**198.4**	*	17.8
REV 25BHR44	**197.9**	*	18.0
Seed Consultants SCS 1154AM	**195.1**	*	17.8
B-H Genetics BH 8700VTTP	**194.2**	*	17.0
N74R 3000GT Brand	**193.1**	*	17.7
Pioneer P1197AM	**192.1**	*	16.8
Seed Consultants SC 11AQ15	**191.1**	*	17.9
Doebler's RPM 5215YHR	**188.6**		16.8
Mycogen 2V777	**188.3**		17.8
Mycogen 2C786	**187.7**		18.2
B-H Genetics BH 8660VTTP	**187.2**		17.5
REV 24BHR93	**186.7**		17.0
Dekalb DKC64-69	**186.6**		17.0
Dyna-Gro D55QC73VIP3110	185.8		17.3
Beck's 6348A3	185.6		17.0
Pioneer P1319HR	185.2		17.0
Pioneer P1529YHR	184.8		17.4
B-H Genetics BH 8550SSS	184.4		16.9
Mycogen 2J794	183.2		18.4
TA 683-13VP	182.6		16.6
Dyna-Gro D55VP77VT3P	182.4		17.2
N79Z 3000GT Brand	181.9		17.9
HT-7261VT3PRORIB	181.8		17.0
Seed Consultants SCS 1131AM-R	180.8		17.1
Dekalb DKC61-54	180.6		16.5
Seed Consultants SC 11AQ35	180.2		17.0
Phoenix 7914A4 Viptera3111	179.3		18.0
Dekalb DKC62-77	179.1		16.5
Armor 1414	179.0		17.2
B-H Genetics BH 8928VTTP	178.1		17.3
Beck's 5509VR	177.8		16.4
Doebler's RPM 5015YHR	176.9		16.8
Armor 1555	176.5		17.3
Mycogen 2V714	176.3		17.1
B-H Genetics BH 8900VIP3111	175.9		18.2
Dyna-Gro D53VC13VT2P	175.0		16.8
Mycogen 2C797	173.8		17.4
Beck's 6948A3	173.1		17.8
Doebler's RPM 685YHR	171.7		17.2
TA 765-30	169.8		17.2
Seed Consultants SC 11AGT43	169.3		17.6
Armor AXT3111	168.0		16.7
Dekalb DKC62-08	166.9		16.6
Augusta A6664VT3Pro	166.7		16.1
N68B 3111 Brand	166.6		16.1
Armor 1550	166.5		17.0
TA 753-22DP	165.0		16.6
Augusta A5565VT2Pro	164.8		17.0
Armor AXC4114W	164.3		16.6
Armor 1330	163.7		16.6
TA 647-22DP	162.7		16.4
Dyna-Gro D52VC91VT2P	160.1		16.8
Beck's 6272AM-R	159.9		16.7
Beck's 6575HR	159.9		18.0
Armor AXC4110	155.3		16.3
Armor 1314	153.5		16.4
Armor 1262	145.5		16.2
MEAN	**177.8**		**17.1**
CV (%)	9.5		2.8
avg SEM	7.6		0.2
avg LSD (p=0.10)	16.2		0.3
df LSD	233		233

Highest yielder. *Not significantly different from highest yielder. **BOLD entries comprise the upper quartile.

CV - trial variability as a percent of mean yield for the trial

avg SEM - average standard error of hybrid mean based on within-trial variation

avg LSD - smallest difference between hybrids considered significant, averaged within a single trial

Table 24. Multiple year performance of LATE maturing (>115 day) corn hybrids in the PIEDMONT region of North Carolina.

Brand-Hybrid or Hybrid	Yield *bu / A*		Moisture *%*	Ear Ht *inches*
THREE YEAR MEAN - 2012, 2013, 2014				
Dyna-Gro D57VP51VT3P	172.2	**	10.5	40.0
Seed Consultants SC 11AQ72	159.5	*	10.5	52.5
Seed Consultants SCS 11HR63	153.1	*	10.3	50.0
N78S 3111 Brand	152.5		10.4	43.0
MEAN	**159.3**		**10.4**	**46.4**
SEM	7.0			
LSD (p=0.10)	19.3			
df LSD	6			
TWO YEAR MEAN - 2013, 2014				
Dyna-Gro D57VP51VT3P	189.0	**	10.5	40.0
Dyna-Gro D56VC46VT2P	181.5	*	10.3	43.5
Seed Consultants SC 11AQ72	181.1	*	10.5	52.5
Dekalb DKC67-58	177.0	*	10.2	41.5
Augusta A7767VT3Pro	171.4		10.5	45.5
Doebler's RPM 765YHR	168.9		10.6	48.5
Seed Consultants SCS 11HR63	168.8		10.3	50.0
Phoenix 6542A4 Viptera3111	168.4		10.5	42.5
Dyna-Gro D57VP75VT3P	168.1		10.3	51.5
Pioneer P1739HR	167.6		10.2	42.0
N78S 3111 Brand	163.9		10.4	43.0
MEAN	**173.2**		**10.4**	**45.5**
SEM	6.1			
LSD (p=0.10)	15.5			
df LSD	10			

**Highest yielder. *Not significantly different from highest yielder.
SEM - standard error of hybrid mean across environments
LSD - smallest difference between hybrid means considered different, across environments
Three year data = 3 environments; Two year data = 2 enviornments

Table 25. Performance of LATE maturing (>115 day) corn hybrids at a single enviroment in the PIEDMONT region of North Carolina, 2014.

Brand/Hybrid or Hybrid	Yield *bu / A*	Moisture *%*
Seed Consultants SC 11AQ72	**186.7 ****	20.7
Augusta A8868VT3	**173.7 ***	20.3
REV 27HR83	**172.3 ***	20.4
Dyna-Gro D57VP51VT3P	**171.7 ***	20.8
Dekalb DKC67-58	**171.0**	20.1
N83D 3000GT Brand	**169.8**	21.7
Dyna-Gro D57VP75VT3P	**169.5**	20.4
Dyna-Gro D56VC46VT2P	168.8	20.3
Armor 1616	168.7	20.4
TA 784-13VP	168.1	21.2
Phoenix 6706A4 Viptera3111	166.3	20.5
Dekalb DKC68-92	164.5	20.7
Pioneer P1775YHR	164.4	20.9
Seed Consultants SCS 11HR63	163.9	20.4
Pioneer P1739HR	163.4	20.2
Augusta A7767VT3Pro	163.1	20.7
Seed Consultants SC 11AGT74	162.5	21.4
Phoenix 6542A4 Viptera3111	161.2	20.8
Doebler's RPM 765YHR	158.1	21.0
TA 774-13VP	158.0	20.3
Doebler's RPM 5915HXR	157.6	20.5
Armor AXC3117	157.4	20.8
Augusta A5566GTCBLL	156.8	21.4
Armor 1880	156.3	19.7
N78S 3111 Brand	151.4	20.6
Beck's 6778AM	147.9	20.2
MEAN	**164.4**	**20.6**
CV (%)	10.9	3.8
avg SEM	8.0	0.4
avg LSD (p=0.10)	15.5	0.4
df LSD	102	102

Highest yielder. *Not significantly different from highest yielder. **BOLD entries comprise the upper quartile.
CV - trial variability as a percent of mean yield for the trial
avg SEM - average standard error of hybrid mean based on within-trial variation
avg LSD - smallest difference between hybrids considered significant, averaged within a single trial

Table 26. Multiple year performance of corn silage in Rowan County, North Carolina

Brand/Hybrid or Hybrid	Silage Yield 65% moisture *tons/A*	Dry matter Yield *tons/A*	Dry Matter at harvest *%*	Plant Height *inches*
		THREE YEAR MEAN - 2012, 2013, 2014		
Dekalb DKC67-88	20.5	7.2	43.8	93.6
N78S-3111 Brand	19.5	6.8	42.9	93.7
N79Z-3111 Brand	19.3	6.7	43.8	94.1
N82V-3111 Brand	19.0	6.7	43.9	94.5
MEAN	**19.6**	**6.9**	**43.6**	**94.0**
		TWO YEAR MEAN - 2012, 2013, 2014		
Dyna-Gro D57VP75	22.3	7.8	44.1	100.7
Mycogen TMF2L825	22.2	7.8	42.5	91.3
Dyna-Gro D59HR50	22.1	7.7	41.3	103.2
Dekalb DKC66-87	22.0	7.7	45.8	97.0
Dekalb DKC67-88	20.8	7.3	43.1	96.4
N79Z-3111 Brand	20.1	7.0	43.8	95.1
N78S-3111 Brand	19.9	7.0	43.5	97.6
N82V-3111 Brand	18.8	6.6	44.3	96.7
MEAN	**21.0**	**7.4**	**43.6**	**97.3**

**Highest yielder. *Not significantly different from highest yielder.

Table 27. Milk and yield performance of corn silage in Rowan County, NC - 2014.

Brand/Hybrid or Hybrid	Milk‡ *lb* *per acre*	Milk‡ *lb per ton* *dry matter*	Silage Yield 65% moisture *tons/A*	Dry matter Yield *tons/A*	Dry Matter at harvest *%*	Plant Height *inches*
Dyna-Gro D59HR50	**26,979** **	3,040 *	26.0 **	9.1 **	42.8	100
Dyna-Gro D55QC73	**25,558** *	3,068 *	22.6	7.9	44.6	102
Doebler's 5815GRQ	**25,302** *	3,153 **	22.7	8.0	50.2	105
TA 784-13VP	**25,016** *	3,149 *	22.6	7.9	46.4	102
Dyna-Gro D57VP75	**24,681** *	3,115 *	22.8	8.0	45.8	106
Dekalb DKC68-92	**24,540** *	3,122 *	21.9	7.7	46.9	98
Pioneer P1775YHR	**24,452** *	3,148 *	22.6	7.9	47.6	101
Dekalb DKC67-88	24,106 *	3,126 *	22.4	7.9	44.6	103
TA 765-30	24,022 *	3,053 *	22.1	7.7	44.7	105
N79Z-3111 Brand	23,966 *	3,028 *	22.8	8.0	45.5	105
Augusta A5566GTCBLL	23,860 *	3,149 *	21.7	7.6	46.9	100
Mycogen TMF2H747	23,854 *	3,116 *	23.0	8.1	47.1	99
Mycogen TMF2L825	23,431 *	3,009 *	23.3	8.2	42.6	97
Mycogen TMF2R737	23,315 *	3,087 *	23.3	8.1	49.9	101
N78S-3111 Brand	22,836	3,128 *	22.2	7.8	44.8	100
Dekalb DKC66-87	22,834	3,056 *	22.5	7.9	48.3	97
N83D-3000GT Brand	22,748	3,130 *	21.3	7.5	46.0	100
Doebler's RPM 5315AMXT	22,653	3,143 *	21.3	7.5	43.7	102
Augusta A8868VT3 PRO	22,615	3,105 *	23.2	8.1	45.3	104
TA 780-22DP	22,340	3,104 *	21.8	7.6	46.9	98
Pioneer P2089YHR	22,187	3,037 *	21.9	7.7	43.5	105
Mycogen TMF2H919	21,429	2,976	20.9	7.3	42.2	97
HT-389VT3PRORIB	21,305	3,021 *	20.9	7.3	45.2	101
Doebler's RPM 685YHR	21,130	3,142 *	21.2	7.4	47.1	106
N82V-3111 Brand	21,041	3,098 *	19.6	6.9	46.7	100
Mycogen F2F817	19,345	3,039 *	18.3	6.4	39.6	97
Augusta A8064VT3 PRO	16,469	3,010 *	16.8	5.9	46.2	94
MEAN	**23,038**	**3,087**	**21.9**	**7.7**	**45.6**	**101**
CV (%)	12.7	4.0	10.7	10.7	5.4	5.4
avg SEM	1,685	72	1.1	0.4	1.1	2.4
avg LSD (p=0.10)	3,855	166	2.3	0.8	2.5	6
df LSD	52	52	106	106	106	25

‡Milk data based on University of Wisconsin MILK2006 index.

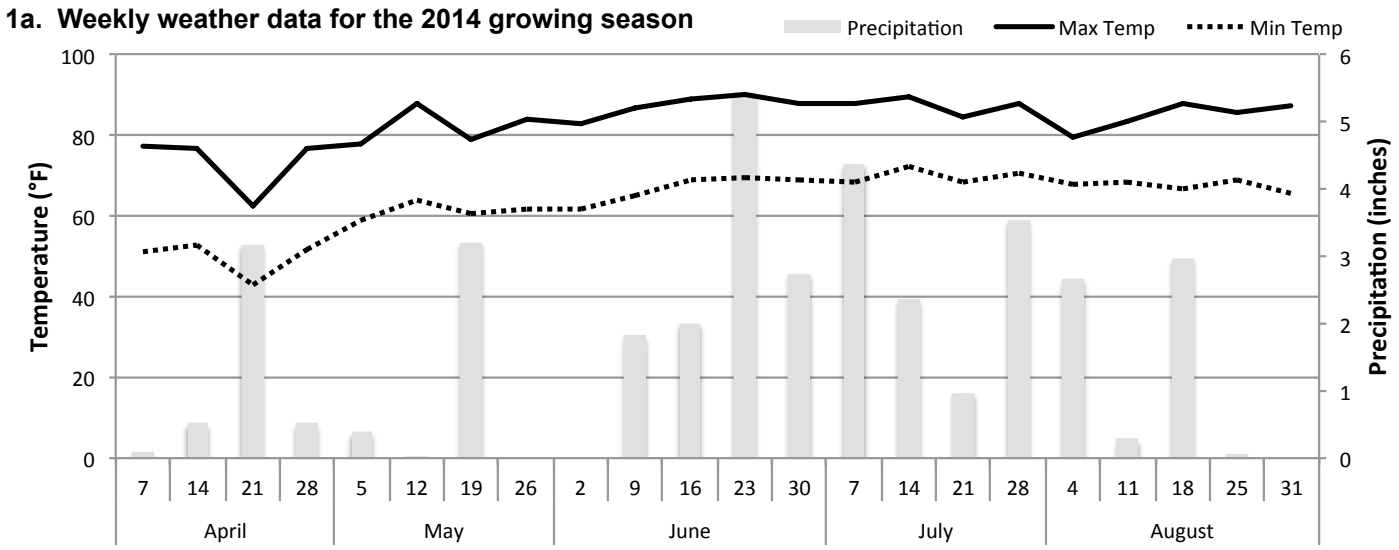
Highest yielder. *Not significantly different from highest yielder. **BOLD entries comprise the upper quartile.

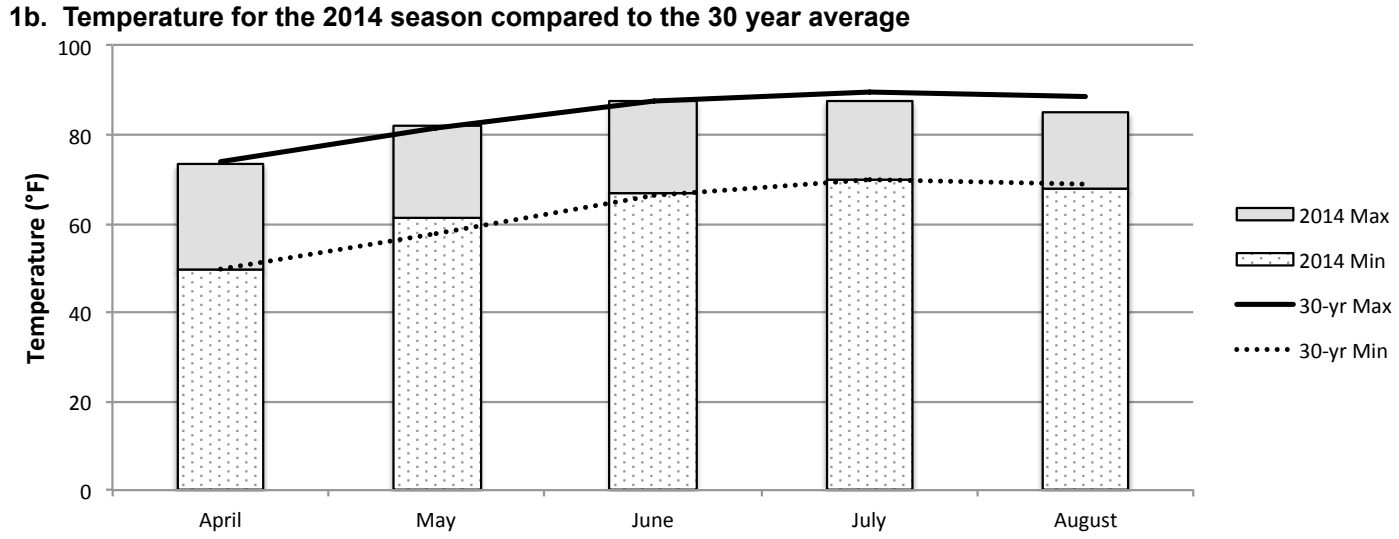
CV - trial variability as a percent of mean yield for the trial

avg SEM - average standard error of hybrid mean based on within-trial variation

avg LSD - smallest difference between hybrids considered significant, averaged within a single trial

Figure 1. Lenoir Weather Data





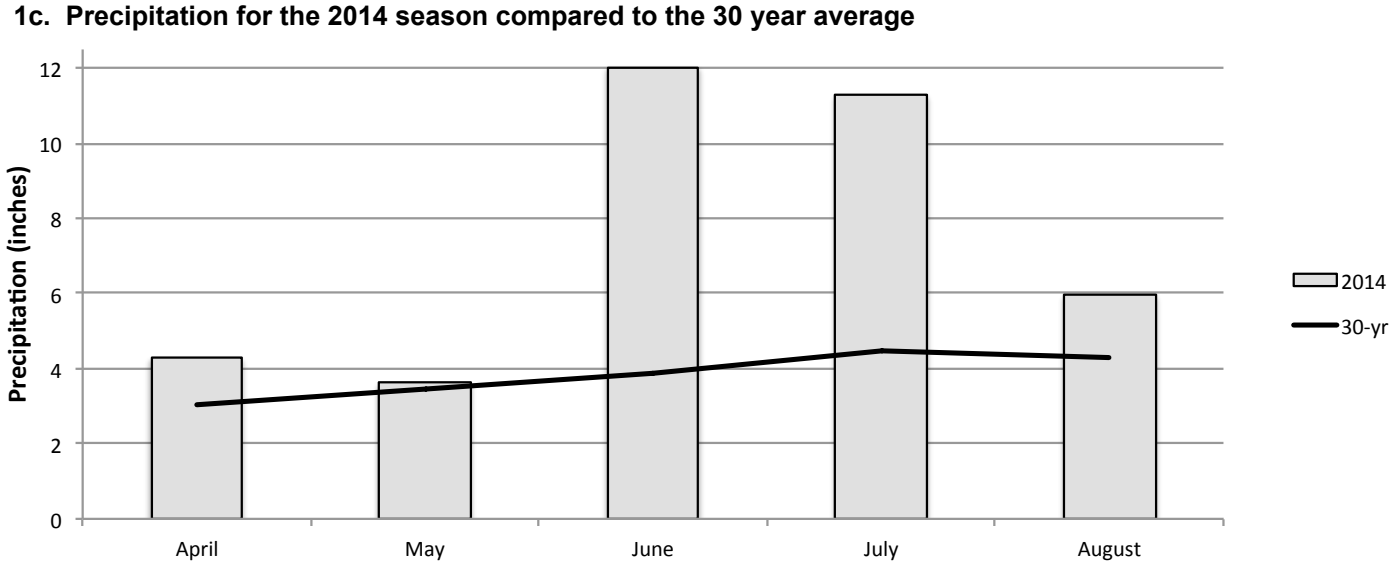
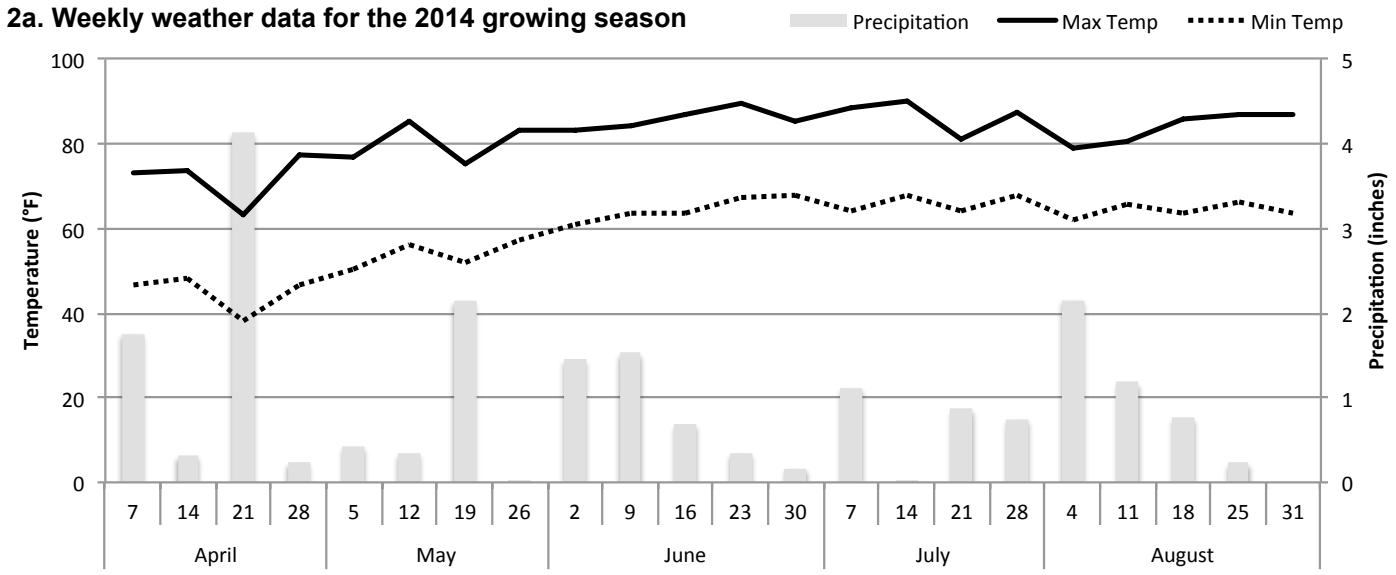
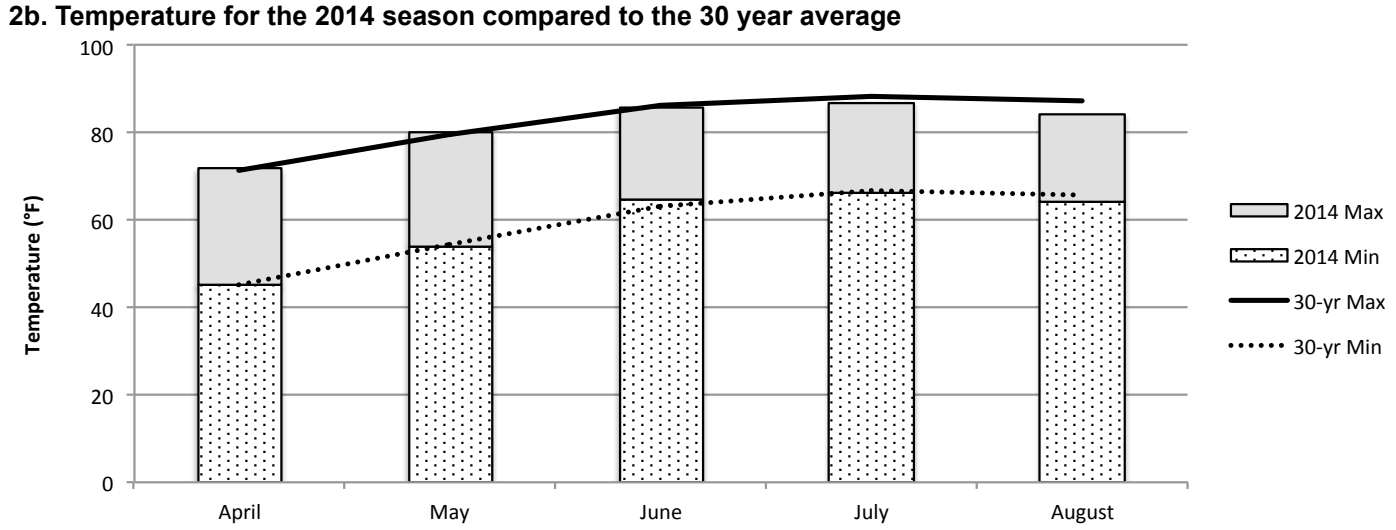


Figure 2. Rowan Weather Data





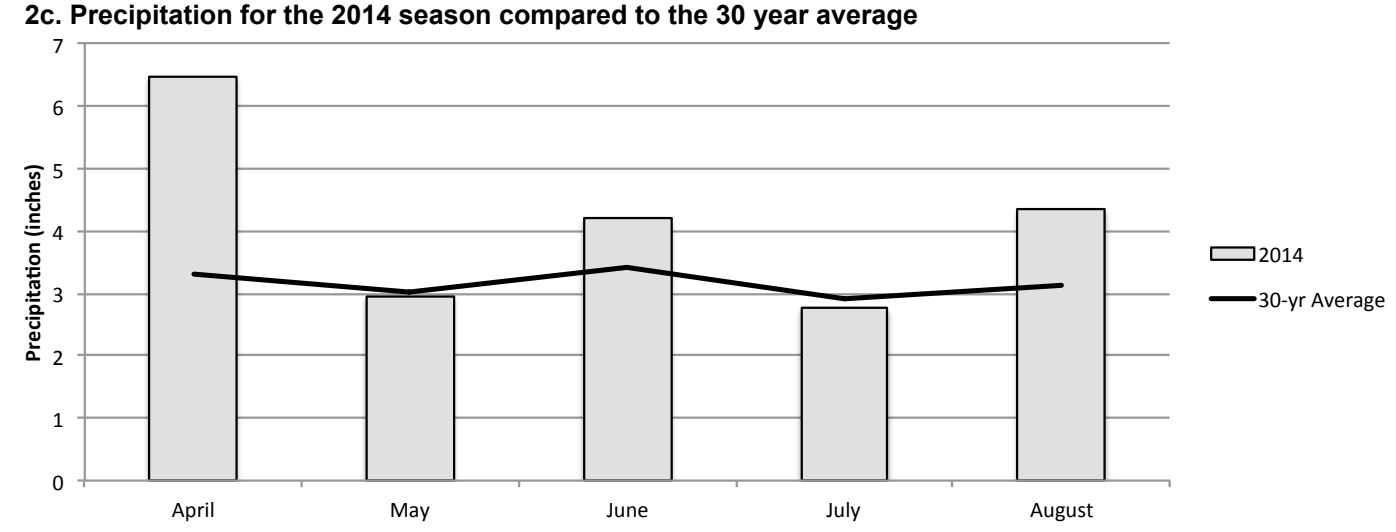
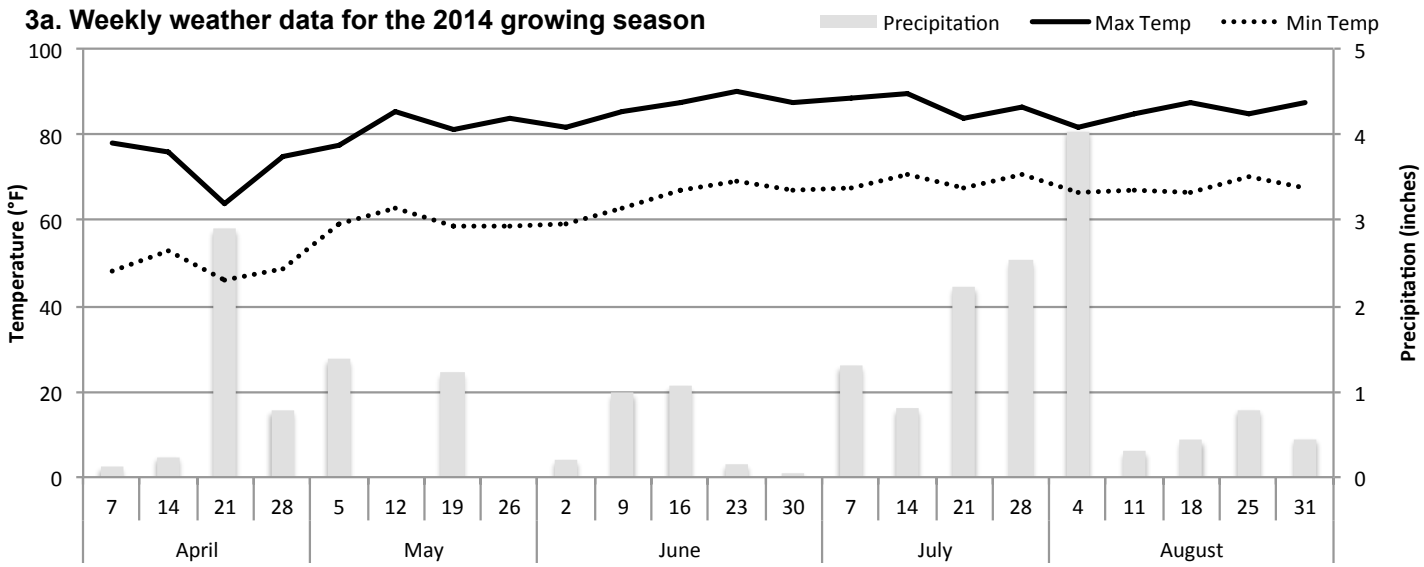
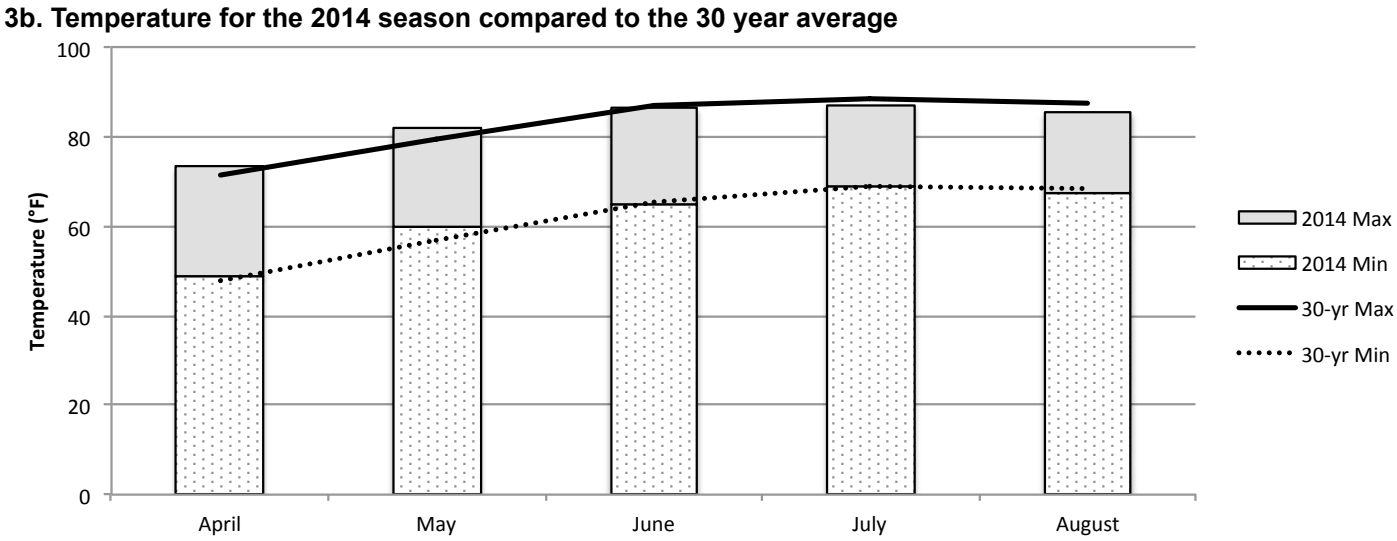
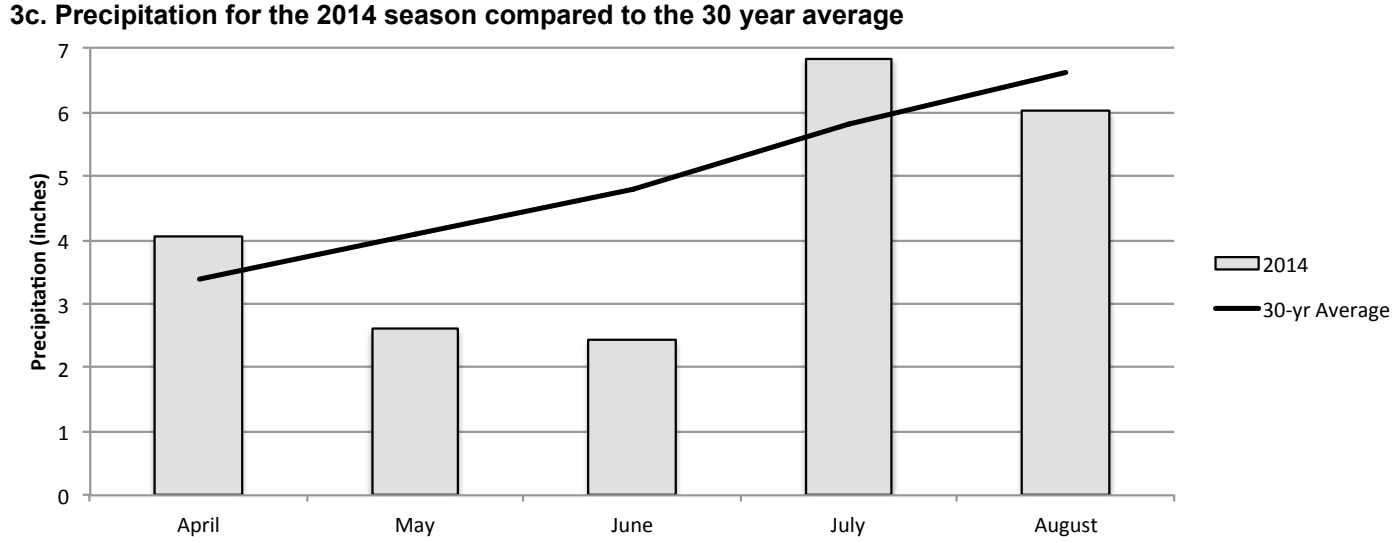


Figure 3. Washington Weather Data







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http://www.ncovt.com

NOTES

Official Variety Testing
Department of Crop Science
College of Agriculture and Life Sciences
North Carolina State University
Raleigh, NC 27695-8604