

2022 Grain Corn Variety x Seeding Rate



Dr. Heather Darby, UVM Extension Agronomist
Sophia Wilcox Warren
UVM Extension Crop and Soil Technicians
802-524-6501

Visit us on the web at <http://www.uvm.edu/nwcrops>

2022 GRAIN CORN VARIETY X SEEDING RATE TRIAL
Dr. Heather Darby, University of Vermont Extension
heather.darby[at]uvm.edu

In the N

loam, 0 to 5 percent slopes. The seedbed was prepared with a Pottinger TerraDisc. The previous crop was soybeans. Prior to planting, plots were fertilized with 7-18-36 at a rate 200 lbs ac⁻¹ on 9-May. Plots were planted on 20-May with a 4-row cone planter with John Deere row units fitted with Almaco seed distribution units (Nevada, IA). Plots were 20' long and consisted of four rows of corn 30" apart. Populations were counted in each plot after emergence and just prior to harvest. On 20-Jun, plots were top-dressed with 46-0-0 plus the inhibitor ContaiN MAX™ at a rate of 200 lbs ac⁻¹.

Table 1. Treatment and trial management information.

Location	Borderview Research Farm- Alburgh, VT
Soil type	Benson rocky silt loam, 0 to 5 percent slopes
Previous crop	Soybean
Row width (in)	30
Plot size (ft)	10 x 20
Varieties	Cascade Ruby-Gold (flint type) Wapsie Valley (dent type)
Seeding rates (seeds ac ⁻¹)	20,000
	22,000
	24,000
	26,000
	28,000
30,000	
Planting date	20-May

difference between two hybrids within a column is equal to or greater than the LSD value at the bottom of the column, you can be sure that for 9 out of 10 times, there is a real difference between the two hybrids. Hybrids that were not significantly lower in performance than the highest hybrid in a particular column are indicated with an asterisk. In this example, hybrid C is significantly different from hybrid A but not from hybrid B. The difference between C and B is equal to 1.5, which is less than the LSD value of 2.0. This means that these hybrids did not differ in yield. The difference between C and A is equal to 3.0, which is greater than the LSD value of 2.0. This means that the yield of these hybrids were significantly different from one another. The asterisk indicates that hybrid B was not significantly lower than the top yielding hybrid C, indicated in bold.

RESULTS

Weather data was recorded with a Davis Instrument Vantage Pro2 weather station, equipped with a WeatherLink data logger at Borderview Research Farm in Alburgh, VT (Table 2). Temperatures were below normal in all months except for October at 1.24° F above normal. The overall growing season for grain corn was cool, at 3.67° F below normal. This season also experienced more rainfall than normal at 3.73 inches more than the 30-yr average. These conditions brought fewer Growing Degree Days (GDDs) with a total of 2290 being accumulated through the growing season, 93 below the 30-year normal.

Table 2. Weather data for Alburgh, VT, 2022.

Alburgh, VT	June	July
-------------	------	------

Table 3. Harvest characteristics of six seeding rates of Wapsie Valley grain corn, Alburgh, VT, 2022.

Seeding rate	Harvest moisture
--------------	---------------------

ACKNOWLEDGEMENTS

This material is based upon work supported by the National Institute of Food and Agriculture, U.S. Department of Agriculture, through the Northeast Sustainable Agriculture Research and Education program under subaward number ONE20-362. UVM Extension Northwest Crops and Soils Program would like to thank Roger Rainville and the staff at Borderview Research Farm for their generous help with this research.