

2021 OAT VARIETY TRIAL

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Oats (*Avena sativa* L.) have a long history of production in the Northeast. Although most oats are planted for a cover crop or forage, grain oats are a potential revenue source for farmers. According to the 2017 census, about 80 acres of land in Vermont is cultivated for oat grain production, with an average yield of 1956 lbs. ac⁻¹. With the exception of hull-less varieties, oats need to be de-hulled before they can be used for human consumption and even further processing is required to make oatmeal, steel cut oats, or oat flour. Since 2009, the University of Vermont Extension Northwest Crops and Soils Program has conducted oat variety trials to provide yield and quality comparisons for oats grown in
selection is one of the most important aspects of crop production and significantly influences yield potential. It is important to remember, however, that the data presented are from replicated research trials from only one location in Vermont and represent only one season. The goal of this project was to evaluate yields and protein of twenty-

Richmond	Seedway
Saddle	Albert Lea Seed
Shelby 427	Albert Lea Seed
Streaker (hulless)	Albert Lea Seed
Sumo	Albert Lea Seed
VNS (lot# 18-6034)	Seedway

The trial was planted at Borderview Research Farm in Alburgh, VT on a Benson rocky silt loam, over shaly limestone,

Variations in yield and quality can occur because of variations in genetics, soil, weather, and other growing conditions. Statistical analysis makes it possible to determine whether a difference among varieties is real or whether it might have occurred due to other variations in the field. At the bottom of each table a LSD value is presented for each variable (e.g. yield). LSD at the 10% level of probability are shown. Where the difference between two varieties within a column is equal to or greater than the LSD value at the bottom of the column, you can be sure in 9 out of 10 chances that there is a real difference between the two varieties. In the example, variety A is significantly different from variety C, but not from variety B. The difference between A and B is equal to 725, which is less

Pringle's Progress) in terms of height.

Figure 1. Yield and crude protein of 25 oat varieties evaluated in Alburgh, VT, 2021.

DISCUSSION

It is important to remember that the results only represent one year of data. The 2021 the oat varietal trial season started out with slightly warmer than normal temperatures but ended with a very cool July with temperatures about 4.3 degrees below the 30-year average. Despite a cool July, the warm spring balanced the overall temperature enough to produce 36 the 30-day average. Average height for all varieties in 2021 was 100 cm, the tallest variety being 111 cm (Richmond) with 7 other statistically similar varieties. In contrast, the average height in 2020 was 87 with just 4 varieties growing over 100 cm. Lodging was also very low this year with an average of 1.08% and five varieties having 0% lodging. Harvest moisture was 15.4%, with none of the varieties being below the ideal storage moisture rate of 14%. The mean crude protein was 11.6% and average test weight was 33 lbs. bu⁻¹. In the 2021 oat variety trial, the mean yield was 2833 lbs. ac⁻¹, this is lower than the average yield in 2020 by about 240 lbs. ac⁻¹. As you make variety choices on your farm, it is important that you evaluate data from test sites that are as similar to your region as possible.

ACKNOWLEDGEMENTS

UVM Extension would like to thank Roger Rainville and his staff at the Borderview Research Farm in Alburgh, VT, for hosting this trial. We would like to acknowledge the USDA OREI grant program award number 20155130024153 and the USDA NIFA grant program award number 2020-51300-32379 for their project support. We would also like to thank Catherine Davidson, Ivy Krezinski, Rory Malone, Lindsey Ruhl, Laura Sullivan, Sophia Wilcox Warren, and Sara Ziegler for their assistance with data collection and entry. The information is presented with the understanding that no product discrimination is intended and no endorsement of any product mentioned or criticism of unnamed products is implied.