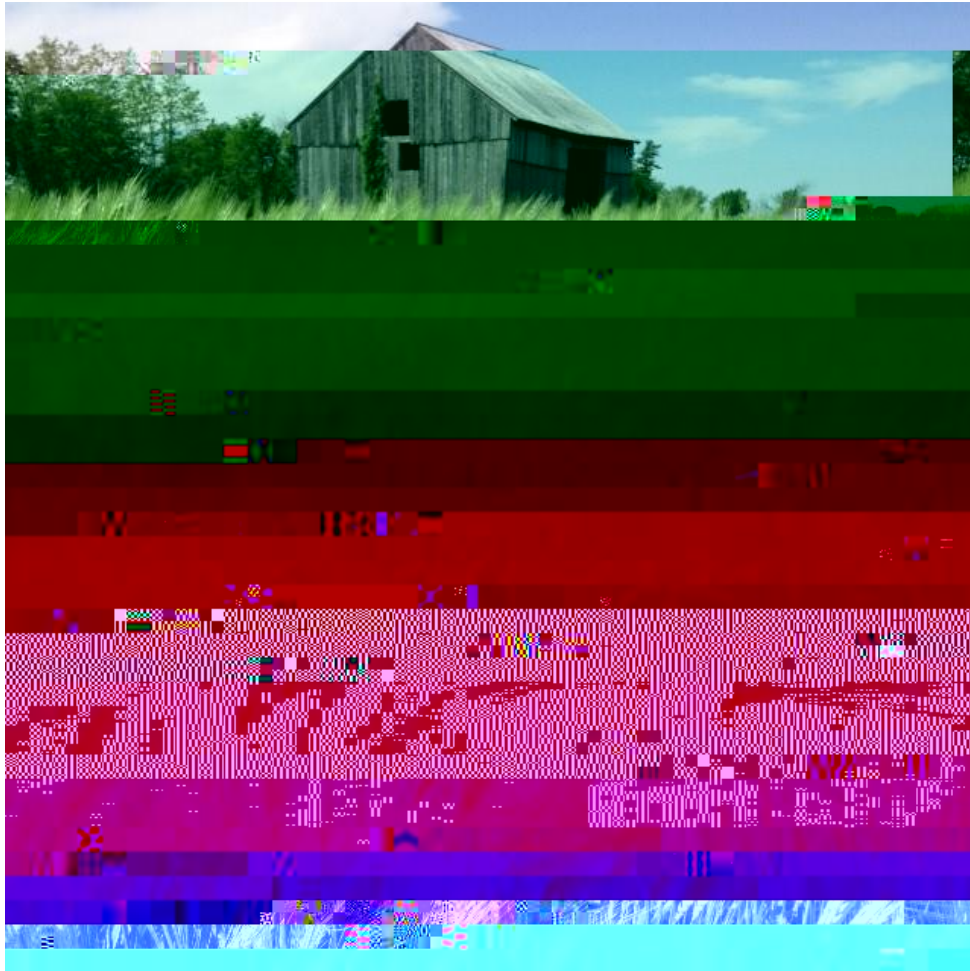


# 2022 Organic Spring Barley Variety Trial



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**Table 5. Quality results for the 25 spring barley varieties trialed in Alburgh, VT, 2022.**

Variety	Protein at 12% moisture	Starch	Falling number	Germination	Plumpness
	%	%	seconds	%	%
10031 U1	8.50*	56.9	381*	92.3	97.6*
2ND32529	8.60*	57.2	215	94.3	97.9*
2ND36638	8.60*	56.7	352	91.7	98.3*
2ND36642	8.20	57.3*	348	94.7	<b>98.7*</b>
2ND37111	7.90	57.8*	<b>393*</b>	98.3*	95.3
2ND37130	7.40	<b>58.3*</b>	367*	99.3*	97.0*
2ND37568	7.60	58.1*	359*	96.7*	96.5*
3523 U2	8.30	57.5*	327	96.0*	97.6*
AAC Connect	8.90*	58.3*	329	98.7*	95.0
AAC Synergy	8.80*	56.9	341	98.7*	97.6*
CU198	9.20*	56.5	371*	98.3*	96.5*
Esma	8.10	57.5*	309	<b>99.7*</b>	98.3*
Excelsior Gold	8.30	57.6*	335	98.7*	97.9*
Explorer	8.40	56.9	345	97.3*	96.4
Firefox	8.20	57.5*	245	96.0*	97.4*
Klarinette	8.50*	56.8	388*	92.7	98.3*
KWS Amadora	7.60	57.9*	203	96.3*	96.7*
KWS Jessie	7.20	58.2*	308	95.3	97.2*
KWS Kellie	8.50*	57.2	307	96.7*	98.2*
KWS Willis	7.40	58.0*	325	94.3	98.6*
ND Genesis	8.80*	56.9	342	99.0*	98.6*
Newdale	8.70*	57.1	374*	99.3*	94.9
Pinnacle	8.40	56.9	351	86.7	97.7*
Revanche	7.70	57.6*	374*	96.3*	94.8
TR17255	<b>9.20*</b>	56.7	257	96.7*	96.2
LSD (0.10)	0.771	1.00	38.4	4.33	2.32
Trial Mean	8.30	57.4	330	96.2	0.972

\*Varieties with an asterisk are not significantly different than the top performer in **bold**.

Only two varieties (TR17255, CU198) were within the industry standard of 9-11% for crude protein for malting barley. Ten other varieties were statistically similar to the highest crude protein performing variety TR17255. The variety with the highest starch content was 2ND37130 at 58.3%, with twelve other varieties being statically similar to this high starch content. All varieties had falling numbers above 200 seconds, indicating sufficient enzymatic activity. The highest falling number, 393 seconds, was found in the variety 2ND37111. All varieties except 10031 U1, 2ND32529, 2ND36638, 2ND36642, Klarinette, KWS Willis, and Pinnacle were above the industry standard of 95% germination rate. All varieties were above industry standards for plumpness of >80% for a two-row barley.

One trial rep of the barley was tested for DON. However, all of the plots that were tested were below the

**Figure 1. Yield and crud**

In terms of quality parameters, all varieties performed within industry standards for plumpness and falling number. All varieties had a plumpness greater than 80%, and all varieties had a falling number greater than 200. All but eight varieties were within the industry standard for germination, with a rate above 95%. While only two varieties were within the industry standard for crude protein, of 9-11%, ten other varieties were statistically similar to the highest crude protein content of 9.2%. The highest starch content was found in 2ND37111 at 58.3%, with twelve other varieties being statically similar.

No varieties outperformed the others. All varieties that were statistically similar as high yielding varieties performed highly in other quality parameters. It is important to note that these results represent only one year of data. As farmers make variety selections, they should make sure to evaluate data from test sites that are similar to their own region as possible. It is our intention to continue this research in 2023.

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