

# Breeding Better Barley for Alaska: World Varieties Put to the Test

'Sunshine' hulless barley and 'Wooding' feed barley were developed by researchers at UAF's Agricultural and Forestry Experiment station and released commercially in the 2000s.

## What to look for when breeding barley



Grain size, protein content and starch percentage are measured because these factors differ depending on if the barley is for food, animal feed or brewing

Short to medium varieties are selected as they resist lodging and are easier to harvest

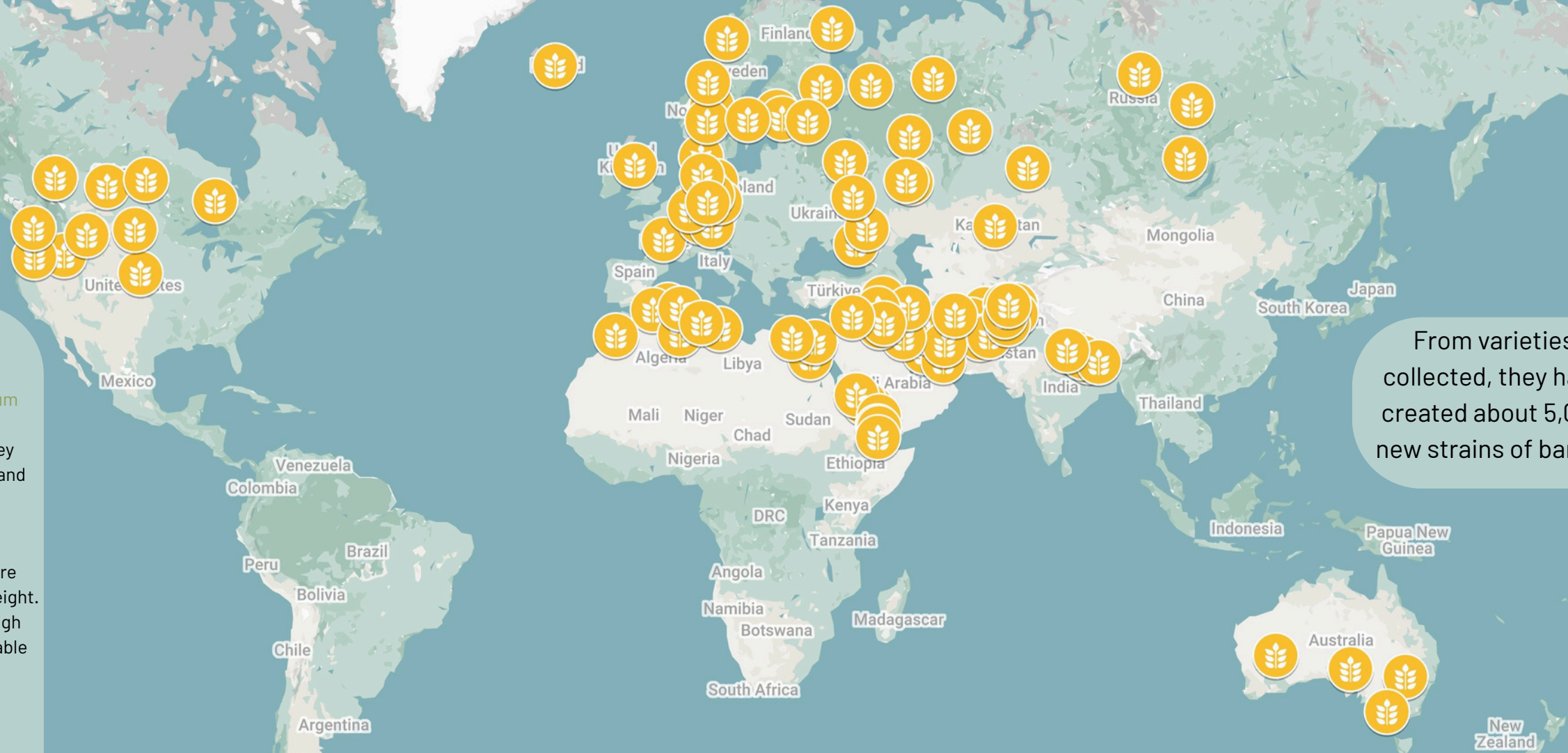
Yields of grain are measured by weight. Varieties with high yields are desirable

Uniform maturity across all tillers is a desirable trait because immature spikes decrease grain quality

Lodging occurs when the stem isn't strong enough to withstand environmental factors like wind

Necking occurs when the grain head is too heavy for the stem. The combine won't be able to harvest this grain

More tillers mean more spikes of grain, but too many tillers often results in immature spikes at harvest time



From varieties collected, they have created about 5,000 new strains of barley.

UAF researchers tested hundreds of barley varieties from around the world to find traits that would work well in Alaska.

Every year, they create thousands of new barley lines through careful cross-pollination and test them in field trials across the state to identify the best-performing varieties for Alaska.

They're developing new barley varieties that Alaska farmers can grow for food, animal feed and malting, supporting local agriculture and distilleries.