



Technology Available for License

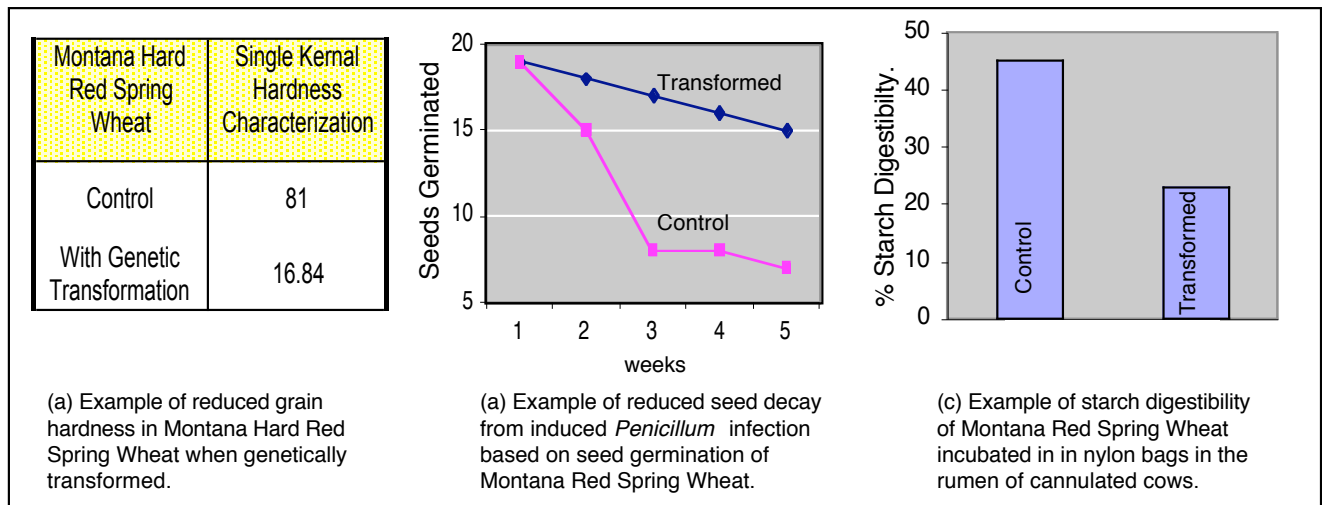
Control of seed grain hardness for improved cereals in both agricultural feed and commercial food products.

Technology for controlling seed grain hardness has broad applications in wheat, barley and corn in animal feed and human food products

Technology Description

Expression of a protein that controls grain hardness has been demonstrated by Montana State University researchers to show potential improvements in cereal grain. Controlling grain hardness promises to provide enhanced grain production, storage, digestibility, and palatability for applications of barley and corn in animal feed, ultimately providing improved animal weight gain. Controlling grain hardness could also provide benefits in human cereal food products through more efficient milling or improvements such as finer textured flours, advancements in barley malting, or enhanced starch extractability from corn.

MSU researchers have shown that over expression of the protein in wheat results in decreases in (a) grain hardness (b) decreases in grain spoilage and (c) decreased starch digestion in the rumen of cows. Similar outcomes are expected in barley and corn.



Benefits

- Reduced grain spoilage and more efficient grain milling
- Better weight gain in animals from delayed starch digestibility and palatability of feed grains
- New and improved human food products through such attributes as increased starch recovery in corn milling, finer textured flours and better barley malting.

Technology Transfer and Development Status

Patents are available and pending. The MSU researchers are available for further development.

Contact for licensing or further details

Nick Zelter, MSU Technology Transfer Officer, 406/994-7706, nzelter@montana.edu

Montana State University
 Technology Transfer Office
 304 Montana Hall
 Bozeman, MT 59717-2460

Phone: 406/994-7868
 Fax: 406/994-4152