Developing an Interactive Web-based Variety Selection Tool for Wheat
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Research Questions

Can growers more efficiently select new spring wheat varieties using a web-based tool that enables them to review data for varieties of interest from regions of MN and ND that they select?

Results

The basic tool has been developed. The interface requires the user to input a zip code to retrieve yield, test weight and protein data from research sites closest to the entered zip code. It also generates an LSD value for the one, two and three year means that are also generated by the program for each variety. The user can also select varieties that he or she would like to compare, head-to-head.

Application/Use

This tool will allow growers and crop consultants to quickly review variety performance data. It is anticipated that as users explore the available data with this tool, they will be better able to make selections of varieties that are more productive and better match the environments where they will be grown.

Materials and Methods

The user interface was developed and was tested with a few farmer groups earlier in the year. Based on suggestions, the interface was refined and data from 2011 was added to the tool. Methodology for generating LSD values was incorporated into the program. We have worked with both NDSU and U of M regarding the hosting of the web site. The programmer is simplifying the process for entering data so that support staff can do so easily. There are still a few bugs being worked on, but this program should be ready to go live by the end of the year.

Economic Benefit to a Typical 500 Acre Wheat Enterprise

In recent years, the number of new varieties of wheat released for production in North Dakota and Minnesota has increased dramatically. In 2011 and 2012, for example, 12 new HRSW varieties were released for potential use in the region. These are added to the more than 35 other varieties that have been released in the past decade. This broad array of varieties provides an unprecedented option to farmers to effectively match the variety to the environment where it will be grown and/or where it will be marketed. This tool should greatly aid farmers in selecting the right variety. Past data has shown that growers have greatly benefited from planting newer adapted varieties. This tool should facilitate the processes of adopting these more productive varieties.

Recommended Future Research

Continue to improve on the selection tool as additional information from users is available. We anticipate adding durum and winter wheat to the data base.

Publications


Appendix

A screen shot of the output of a query of the selection tool using the zip code for Fargo.