

The Future in Wheat Improvement is Bright: The Creation of Red and White Wheat Cultivars

P. Stephen Baenziger and the Wheat Team

We work for Nebraska

This talk will attempt to explain the wheat breeding process. The topics included are:

1. The economic impact of wheat improvement on the state and the nation in terms of economic productivity and feeding people.
2. The wheat breeding process, specifically how long it takes to create a new variety (the crosses that Dr. Baenziger makes this year will become varieties after he most likely retires), what happens each year in the breeding process, how the breeding process leads to information that can be provided to growers as they make their decision to plant or not plant a cultivar, and what surprises can still happen after all the data is collected. As part of this and Dr. Klein's talk, you will learn the importance of the Variety Testing Program—it is an independent assessment of wheat varieties in head-to-head comparisons. It will also show why plant breeding is team research.
3. What the new varieties that will be available in the next two years. We have a new white wheat for noodle making (Anton), a new broadly adapted red wheat (Camelot), a new wheat streak mosaic virus resistant wheat (Mace)—this one is for real, and a new Clearfield wheat (NH03614 CL) that is yet to be named.
4. The new technology that is changing and making more efficient how we breed wheat. The two technologies that will be highlighted are optical kernel sorting to separate red and white kernels, and molecular markers for identifying key lines early in the process.

And

5. How a program of this size is funded: state revenues, federal grants, your check-off dollars at work, research and development fees, and industrial grants.

We hope you find this talk to educational and enlightening. Of course, feel free to bring your questions for a lively conversation. *After all, we work for Nebraska.*