of Barlow, MS Stingray and Samson was discontinued.

Due to the increased use of fungicides on wheat in Minnesota, we initiated an additional variety trial in 2004 in which fungicides are applied at the time of herbicide application (Feekes 5), flag leaf emergence (Feekes 9) and at the onset of flowering (Feekes 10.51). The practice of three fungicide applications during the growing season is not recommended. This fungicide regime was implemented to measure the varieties' performance when fungal diseases were controlled to the maximum extent possible. Decisions regarding fungicide applications should be based on the available decision support systems, and used only if and when disease levels are forecasted to reach economically damaging levels. The additional performance evaluations were carried out adjacent to the conventional (no fungicides applied) trials, so results can be compared directly. Data from trials conducted in Lamberton, Morris, Crookston, and Roseau are included in the 2016 and multi-year summaries. In the two northern locations, the fungicide regime as applied in these trials increased grain yield on average by 5.2 bu/acre in 2016 and by 11.2 bu/acre over the past three years. The two southern locations, Lamberton and Morris, averaged 7.2 and 5.7 bu/acre higher grain yield when fungicide protected in 2016 and over the 3-year average, respectively. Rather than

Table 3. Disease reactions[1] of hard red spring wheat varieties in Minnesota in multiple-year comparisons.

Entry	Leaf Rust	Stripe Rust[2]	Stem Rust[3]	Bacterial Leaf Streak[4]	Other Leaf Diseases[5]	Scab
Bolles	1	1	2	4	4	4
Boost	2	2	3	2	7	4
Chevelle	—	1	1	—	6	5
Dyna-Gro Ambush	—	—	—	—	4	—
Elgin-ND	2	2	2	5	5	5
Faller	5	5	2	4	4	4
Focus	3	3	3	3	7	4
Forefront	2	2	4	3	4	3
Glenn	5	1	1	4	5	3
HRS 3361	3	3	3	4	4	5
HRS 3419	4	1	1	6	3	5
HRS 3504	—	2	2	—	4	6
HRS 3530	—	3	1	—	4	4
HRS 3616	—	—	—	—	5	—
LCS Albany	2	3	3	6	5	4
LCS Anchor	—	—	—	—	6	—
LCS Breakaway	3	2	2	3	5	5
LCS Iguacu	4	5	2	4	4	4
LCS Nitro	4	2	2	6	6	5
LCS Prime	—	4	2	—	6	4
Linkert	4	1	1	4	4	5
Norden	2	1	1	4	4	4
Prevail	2	1	5	2	6	4
Prosper	5	5	2	4	4	5
RB07	2	2	2	6	6	4
Rollag	4	1	2	4	5	3
Shelly	4	1	2	4	4	4
Surpass	—	2	5	—	5	4
SY Ingmar	3	2	1	3	5	4
SY Rowyn	3	1	1	2	6	4
SY Soren	2	2	1	4	4	5
SY Valda	—	2	1	—	4	4
TCG-Cornerstone	—	—	—	—	5	—
TCG-Spitfire	—	—	—	—	4	—
TCG-Wildfire	—	—	—	—	4	—
WB-Mayville	3	3	2	6	7	7
WB9507	8	8	3	6	3	4
WB9653	—	2	2	—	4	5

[1]1-9 scale where 1=most resistant, 9=most susceptible.
[2]Based on natural infections in 2015 at Kimball, Lamberton and Waseca.
[3]Stem rust levels have been very low in production fields in recent years, even on susceptible varieties.
[4]Bacterial leaf streak symptoms are highly variable from one environment to the next. The rating of newer entries may change by as much as one rating point as more data is collected.
[5]Combined rating of tan spot and septoria.