

## Post Anthesis Nitrogen for Wheat Protein Enhancement

A number of farmers have applied the post anthesis nitrogen (PAN) treatment for protein enhancement of wheat. The typical application is:

- 7-10 days after anthesis or your fusarium head blight spray
- 30 lb N/ac as UAN solution (28-0-0) which is 10 US gpa, diluted 50:50 with water
- Applied with flat fan nozzles
- Applied to avoid heat of the day – preferably below 20C

As is typical, a range of leaf burn occurs. Below is an image of leaf burn from a field in the Homewood area. Average ratings of leaf damage are just under 10% and quite typical of past observations.



Figure 1. Leaf burn from 2018 PAN treatments. Average % leaf burn damage score = 9.5%.

In 12 on-farm-tests between 2015-16 leaf burn ratings were taken after PAN treatments and are graphed here versus grain yield and protein change (Figures 2-3). Yield impact, if any, is minimal. In only one instance was yield significantly reduced, when leaf burn exceeded 30% due to spraying in the heat of mid-afternoon. Protein was significantly increased in 9 of 15 cases.

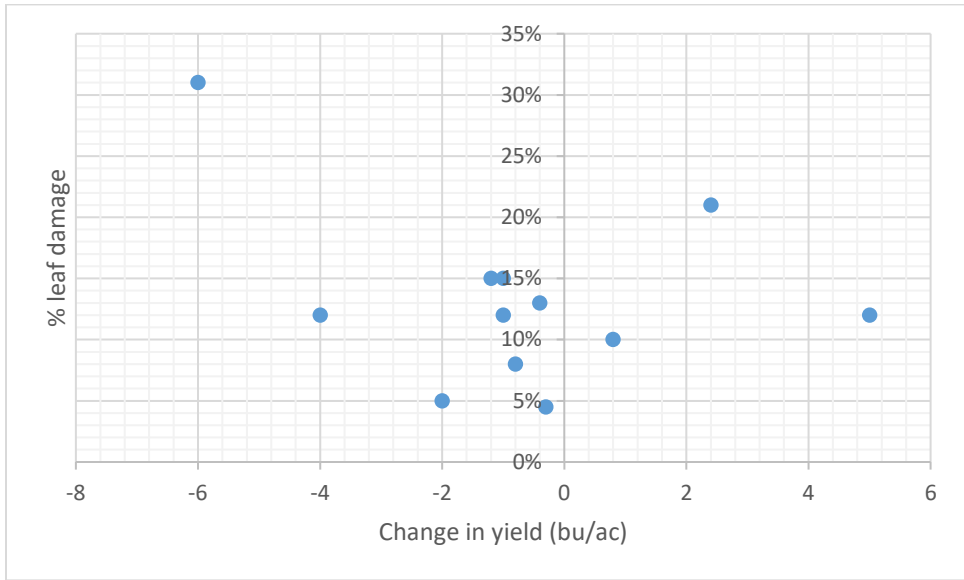


Figure 2. Post anthesis nitrogen impact on % leaf damage and final grain yield.

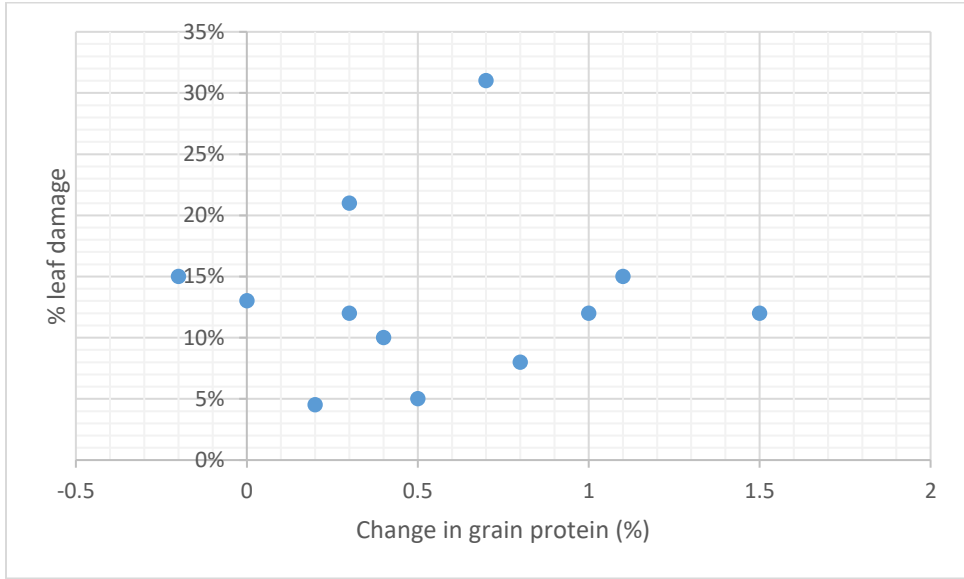


Figure 2. Post anthesis nitrogen impact on % leaf damage and final grain protein.

If farmers have conducted an on-farm-test of PAN this year, they can still participate in the MB Wheat and Barley Growers Association program to have yields and protein documented. Details are attached here. <http://www.mbheatandbarley.ca/wp-content/uploads/2018/05/PAN-project-FINAL-2018.pdf>

A full report of the 2015-16 on-farm-tests can be found at: <http://www.mbheatandbarley.ca/wp-content/uploads/2014/11/OFT-summary-2017-FINAL.pdf>