## 2017 Wheat Update

## Nutrition, Powdery Mildew, Weed and Insect Alerts

Mild January temps have accelerated wheat growth. It's time to topdress wheat very soon. As a reminder, our best yields have come when wheat is topdressed with a winter nitrogen application between 800 and

1,000 GDU, which usually occurs around the first week of February based on an October 15th planting date.

As shown in the table, wheat planted on Oct. 15 in Central VA reached 889 GDU on Dec. 31 according to our Manquin satellite weather station. This is warmer than our 829 GDU average since 2003. Note that the two best wheat yield years (2008 & 2011) had GDU below 800.

Year	Dec 31 GDU	State Avg. Yield
2004	738	55
2005	769	63
2006	661	68
2007	777	64
2008	787	73
2009	785	55
2010	869	51
2011	762	71
2012	986	65
2013	809	62
2014	851	68
2015	815	66
2016	1174	55
2017	889	

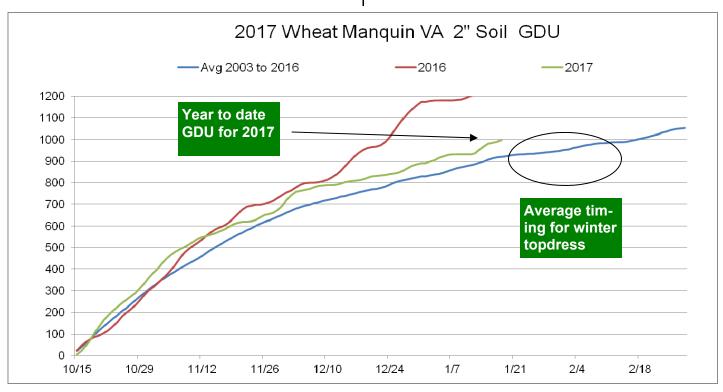
The wheat is not as far along due to the short days just before and after Dec. 21, the shortest day of the year. The earliest planted wheat is photosensitive and does not respond 100% to temperatures.

There are two full tillers in most fields so the recommendation is for 50



to 60 lbs. /acre of nitrogen. Since there has been so much rainfall, fall sulfur has likely leached and a N:S fertilizer in an 6:1 ratio (ex: 28-0-0-5) would seem to be the best solution.

Manganese deficient leaf symptoms have been observed. A foliar application now will help correct. All fields, especially fields with litter or manure, will respond to .25 to .5 lbs. /acre of zinc. Use the higher rate if none has been applied or if the seed was not treated with zinc.





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## Wheat Nutrition, Powdery Mildew, Weed and Insect Alerts

For November-planted wheat, winter applications will need to be completed by the end of February regardless of the GDU accumulated. As the days get longer, the wheat accelerates thru the vegetative stages and tillering will be completed just after March 21 (days become longer than nights).

With the damp fall weather, it's no surprise to find powdery mildew in wheat fields. Wheat planted in October has more infection than November-planted wheat.

According to the <u>Compendium of Wheat Diseases</u>, (APS Press, 1997), mildew infections on young tillers results in reduced head numbers and lower kernel weights or may fail to produce any head at all. Yield losses are greatest when infections occur prior to flowering. Planting resistant varieties is the best defense against mildew but most varieties become resistant or immune only as adult plants.

Because of mildew infections, growers are urged to consider including Tilt® (propiconazole) with their winter nitrogen topdress. Propiconazole mixes well with nitrogen solution and is rated as "very good" on mildew (and tan spot) control in wheat.

There are reports from North Carolina that Hessian fly is infecting wheat. Growers that planted wheat varieties treated with Renwood's *Vizor Plus* or *Vizor 5Z* seed treatments are safe (so far) from Hessian fly and aphids due to the 42% higher insecticide rate than found in most other seed treatments. There have been reports of aphids in wheat fields treated with lower rates of insecticides but <u>not</u> in fields treated with *Vizor Plus* or *Vizor 5Z*.



Manganese deficiency displayed in wheat leaf

A pyrethroid insecticide is encouraged to limit aphid and Hessian fly damage if seed treatments other than *Vizor Plus* or *Vizor 5Z* were used or if no insecticide seed treatment was used.

If needed, apply Harmony Extra® and dicamba (no 2,4-D) to control winter annuals. Henbit and chickweed should be smaller than a half-dollar for good control. If applying with nitrogen solutions, do not add surfactants.

It is <u>not time</u> to spray for ryegrass or bluegrass as average daily temps need to be above 45F for materials to control ryegrass. Wait for warmer temps.