Renwood Farms Seed

2013 Wheat Update: Heat Units and Ryegrass

Crops respond to the amount of heat they receive. We measure this heat by collecting heat units, collectively called Growing Degree Units or GDU. Knowing when critical plant functions are scheduled to occur allows growers to plan their work accordingly.

In the graph below, the GDU are listed for wheat planted on October 15 in Central VA. Wheat planted after this date will not have as many GDU while wheat planted prior to this date will have more GDU.

When wheat reaches between 800 and 1,000 GDU, it is time for the winter nitrogen topdress. The amount of nitrogen applied depends on the number of tillers. A tiller has to have three whole and healthy leaves or it is just a growing tip/ potential tiller. The average rate of nitrogen is between 40 and 60 lbs. /acre for this application.

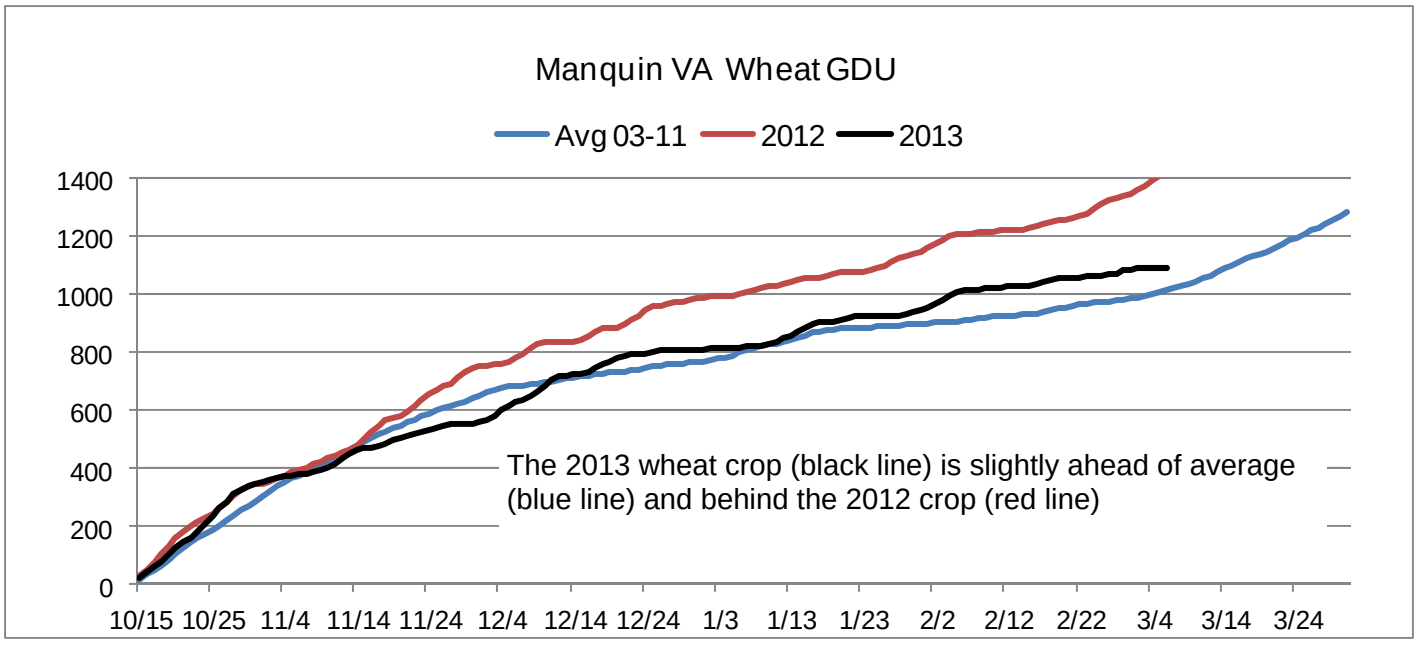
As a tiller reaches the three-leaf stage, it begins to develop its own root system. The photo shows the new tiller roots coming from the crown. Up to this point, the "mother" plant has been carrying the load but now the tillers go off on their own to try to make a head. Nitrogen needs to be available.

The next target is when the GDU reaches between 1200 and 1400. That is when tiller production ceases and the plant begins jointing. At jointing (GS5 or GS30), the head moves above the soil line.

The average date for this event is the last week in March but it all depends on the weather from here out. The NWS is forecasting cooler-than-normal temperatures through Mid-March for most of the Mid-Atlantic.

Just prior to jointing, plant tissue samples are recommended. The sample results will guide how much nitrogen is required to complete the crop (final topdress) plus given a nutritional status of micronutrients, especially manganese.

We have already found tan spot, mildew and septoria lesions and recommend a fungicide with this topdress nitrogen application. Insecticides applied at this stage prevents damage from cereal leaf beetle, armyworms, Hessian fly and aphids.



February , 2013

2013 Wheat Update: Heat Units and Ryegrass

Renwood Farms Seed
Jeff and David Hula, Customer Service and Sales: (804) 829-2450
Paul Bodenstine, Agronomist: (804) 314-7463

Call us today! Renwood Farms has excellent soybean varieties available: New seed treatments too!

For more information about Renwood Farms Seed, check our web page at:
http://www.renwoodseed.com

Ryegrass Control in Wheat

Ryegrass control in wheat is compounded by an evolving species that is germinating over a five month window. A second problem is chemical resistance to the different materials used to control.

In the photo at top right, ryegrass is pictured at three different growth stages in the same field. This should alert growers who sprayed last fall for ryegrass that field scouting is still needed to make sure a second (or third) flush has not occurred.

Osprey®, PowerFlex® and Axial® are late winter/early spring materials available to control ryegrass. The keys to utilizing these compounds are temperatures and surfactants. ***Average daily temperatures need to be at or above 45^{0}F for efficacy***. The labels have very specific recommendations for surfactants/additives and substituting surfactants, crop oils, etc. has caused failure in many cases. None provide residual control.

Osprey: has a label for control of bluegrass and several winter annuals when small. It does have restrictions on nitrogen applications: must apply two weeks before or after liquid nitrogen applications. ***Best when used with MSO as a surfactant.***

Axial XL: has a wider window of application (no nitrogen application restriction) than Osprey but is not as broad of spectrum for weed control: no bluegrass control. No additional surfactant is required with Axial XL: can add up to 50/50 mix with water and U30.

PowerFlex: in the same herbicide family as Osprey; requires an 80/20 surfactant plus U30 as a surfactant; very limited winter annual control on label: can add up to 50/50 mix with U30.

Prowl H2O is labeled for residual control of ryegrass. Prowl has no burndown activity so something will be needed to control emerged ryegrass. There is no requirement for STS beans to be planted after Prowl. Prowl offers a different mode of action which may help with resistance and can be helpful in controlling summer annuals in double-cropped beans.

12" tall ryegrass controlled by Osprey with MSO