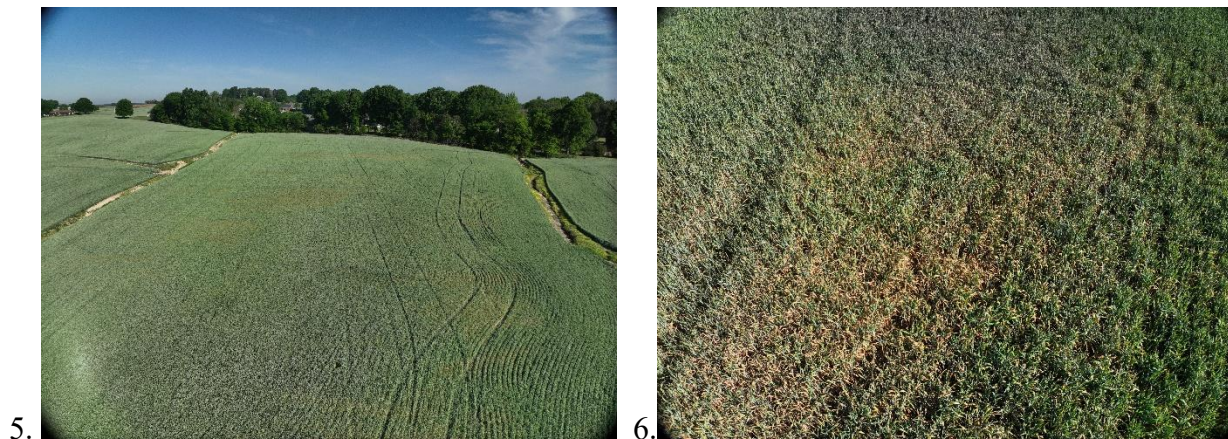


How the drought is affecting NC Wheat. By Dr. Angela R. Post, Small Grains Extension Specialist, North Carolina State University

Much of our state is in severe drought with little to no rain forecast over the next week. In the piedmont and sandhills wheat is already headed and flowering. Along the coastal plain and tidewater wheat is beginning to head and start flowering. At this growth stage the wheat needs 0.3" water per acre per day to fill grain and the lack of soil moisture is causing significant drought stress for most wheat varieties across the state. During this time you may notice wheat flag leaves and other leaves curl up in the hottest part of the day (Image 1 & 2). You may also notice wheat leaf tissues starting to dry down from the base up. Drying from the base to the top of the plant is the normal progression as grain fills (Image 3 & 4); however, the progression for 2026 is much earlier and faster than we typically expect due to the drought. Some sites already have several leaves that have dried down and only the flag leaf or the flag leaf -1 are left green (Image 4). Images 5 and 6 depict "hot spots" you may start to see in your fields. These are areas where the root systems may be shallower or the wheat is more stressed. I expect these areas to grow in size if we do not get rain. We will keep scouting fields and share what is happening around the state.



Heat stress may also impact flowering. In images 3A-C below you can see the different stages of wheat flowering in the state. AGS 3022 is the earliest line in the Official Variety Trials this year

and it is pollinated and filling grain. USG 3118 is also considered early and it has flowered and the grain is starting to form. I did notice a few aborted flowers in this one. VT Hilliard is a medium-late and has not finished flowering yet. When temperatures are above 90F when pollen is forming, pollination may be negatively impacted. We will be scouting wheat over the next two weeks to assess the impacts of the heat and drought stress on wheat flowering and grainfill. Some growers will be trying to make assessments about proceeding. I encourage growers to wait a few more days to make final decisions on the wheat crop especially since it is too dry for planting other crops as well.



Image 3. Wheat flowering and filling grain at the Union County OVT location. A) AGS 2033 pollinated and filling grain; B) USG 3118 finished pollinating and grain starting to take shape, a few aborted near the base of the head; C) VT Hilliard Beginning flowering.