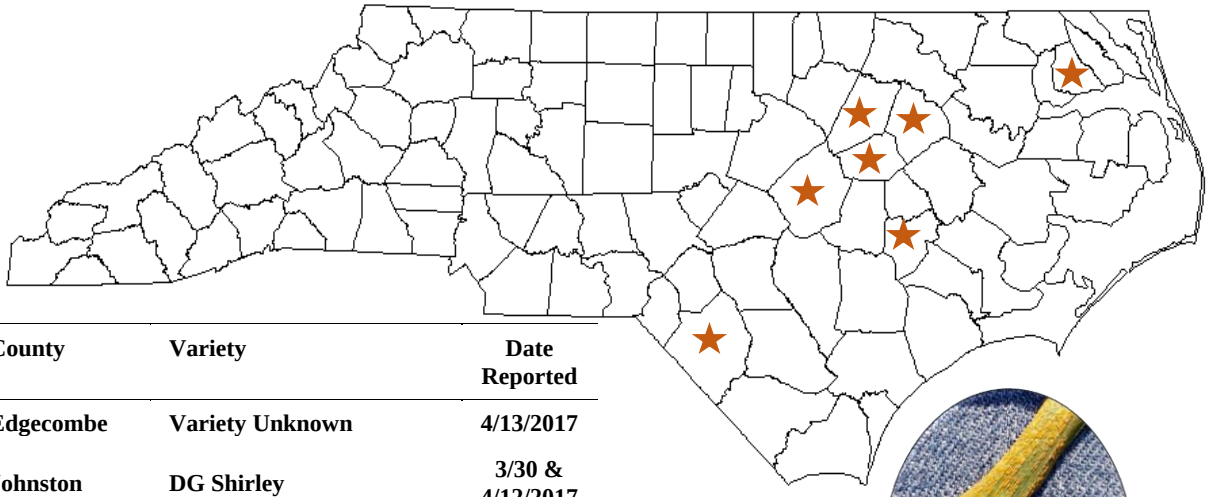
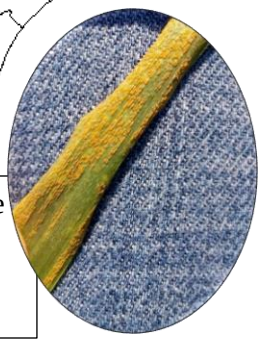
Stripe Rust Alert April 13th 2017

By: Angela Post, NCSU Small Grains Extension Specialist; Christina Cowger, USDA-ARS Small Grains Pathologist & Megan Miller, NCSU Small Grains Extension Assistant



County	Variety	Date Reported
Edgecombe	Variety Unknown	4/13/2017
Johnston	DG Shirley	3/30 & 4/12/2017
Lenoir	DG Shirley	4/10/2017
Nash	Carolina White & NuEast	4/10/2017
Robeson	SS 8404	2/28/2017
Perquimans	DG Shirley	4/12/2017
Wilson	DG Shirley	4/10/2017



Right: Stripe rust lesions on wheat leaf.

Over the last two weeks stripe rust has been reported in several counties across North Carolina (Table 1). A stripe rust epidemic can develop much quicker than a leaf rust epidemic. If scouting reveals stripe rust in your field a fungicide should be applied as soon as possible to preserve yield. Wheat varieties rated susceptible (S) and moderately susceptible (MS) should be scouted immediately. Resistant (R) or moderately resistant (MR) varieties are at low risk. Consult the variety characteristics sheet to determine Stripe Rust susceptibility for common varieties https://smallgrains.ces.ncsu.edu/smallgrains-variety-performance-recommendations/. Apply fungicides to fields containing multiple stripe rust foci first before moving on to fields with less noticeable infections. A stripe rust focus is pictured in Figure 1B.

When choosing a fungicide pay close attention to harvest restrictions on the label. Table 2 is abbreviated from NCERA 184 Fungicide Efficacy for Control of Wheat Diseases to include only fungicide products with an excellent stripe rust rating. The fungicides Prosaro, Caramba, and Folicur provide excellent protection against a stripe rust epidemic. Generic versions of the same active ingredient will provide equivalent control. These fungicides have a 30-day pre-harvest restriction so use caution when applying to fields nearing harvest. Stobilurin-only products such as Aproach and Headline are less effective when used alone after a stripe rust infection has occurred. Aproach Prima also provides excellent protection against stripe rust; however, this fungicide has a 45-day pre-harvest restriction and should only be applied to varieties that are still in boot and not yet heading. As a reminder Feekes 10.5 is heads fully emerged from the boot and Feekes 10.5.1 to 10.5.4 is the flowering stage.

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Table 2. Abbreviated from NCERA-184 Fungicide Efficacy for Control of Wheat Diseases

Class	Product	Rate/A (fl. oz)	Stripe rust	Harvest Restriction
Strobilurin	Aproach SC	6.0 – 12.0	E[3]	Feekes 10.5
	Headline SC	6.0 - 9.0	E[3]	Feekes 10.5
Triazole	Caramba 0.75 SL	10.0 - 17.0	E	30 days
	Folicur 3.6 F[5]	4.0	E	30 days
	Prosaro 421 SC	6.5 - 8.2	E	30 days
Mixed Modes of Action	Aproach Prima SC	3.4-6.8	E	45 days
	Fortix	4.0 - 6.0	E	Feekes 10.5 and 40 days
	Nexicor EC	7.0 - 13.0	E	Feekes 10.5
	Quilt Xcel 2.2 SE[5]	10.5 - 14.0	E	Feekes 10.5.4
	Trivapro SE	9.4 - 13.7	E	Feekes 10.5.4 & 14 days
	TwinLine 1.75 EC	7.0 – 9.0	E	Feekes 10.5

[3]Efficacy may be significantly reduced if solo strobilurin products are applied after stripe rust infection has occurred.

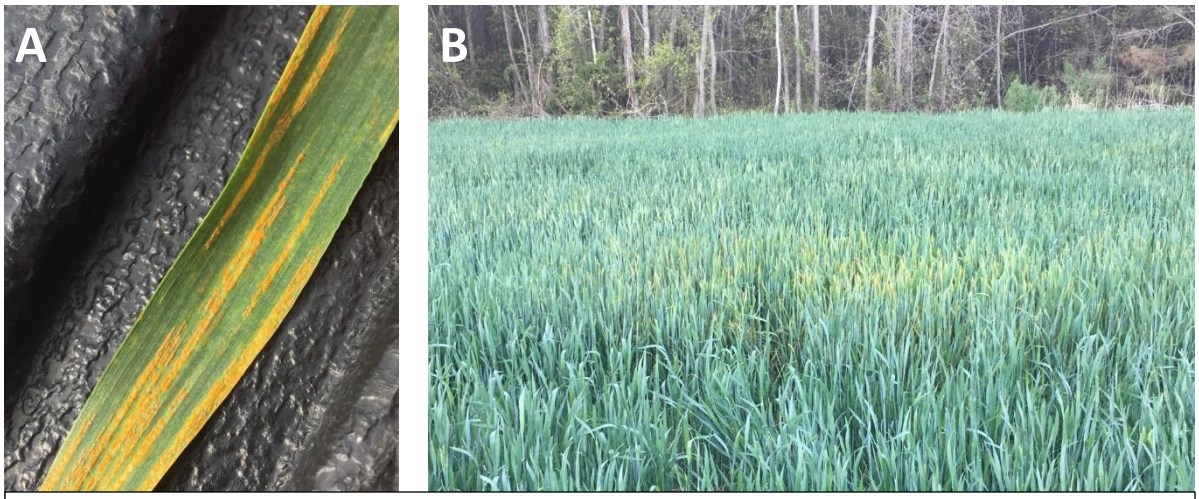

Figure 1. A) Stripe rust is characterized by yellow to orange lesions arranged in stripes on wheat leaves. Heads can become infected if the disease is severe. B) Stripe rust foci in a wheat field. Fields with multiple foci should be treated with fungicide first. Images courtesy of Barry Lewis (A) and Tim Britton (B).

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