Central Maryland Crop Scouting Report
Week ending 4/21/2023

Introduction

Happy Friday! Welcome to the first installment of the Central Maryland Crop Scouting Report from the University of Maryland Extension. Agriculture Agents in Frederick, Howard, and Montgomery Counties are offering free agronomic crop scouting for growers in Central Maryland. These reports will be available to the grower, providing a field-scale report of the observations and recommendations to address any potential concerns observed. These reports are compiled and summarized to provide a general overview of observed trends for all readers of the report.

Given that this is the first report, many details will still need to be worked out. I ask that you provide some patience as the report format, style, and content will continue to evolve until we get to a robust report. We appreciate any and all feedback on this matter, including suggestions on how to improve all aspects of the report.

Growers and agronomists; feel free to provide any observations or trends you have come across while scouting–we appreciate your involvement and participation. Finally, if you would like to have an Agriculture Agent with UME come to scout your fields, please visit https://go.umd.edu/CMD-IPM-Scouting to complete the Google Form, or contact any one of the Ag Agents:

UME - Frederick: Mark Townsend, Agent Associate. mtownsen@umd.edu, (301) 600-3578
UME - Howard: Nathan Glenn, Agent Associate. nglenn@umd.edu, (301) 375-0260
UME - Montgomery: Kelly Nichols, Agent: kellyn@umd.edu, (301) 590-2807

Frederick County

Wheat:

All of the wheat that I have walked within the last two weeks are in the stem elongation stage of their development. Feekes 6-7 (one node visible, second node visible respectively) with the earlier planted fields nearly at Feekes 8 (last leaf just visible). The crop most generally is in good condition, though the dry weather has certainly kept the crop shorter than in other years.

Weed pressure has been winter annuals at heading (purple deadnettle, yellow rocket, chickweed). Roughstalk bluegrass at heading was found in all scouted fields; additionally, some fields with manure application history had some orchardgrass at boot.

Localized infections of tan-spot and powdery mildew were observed in the characteristic locations (low-lying regions, next to waterways, ect.). These infections were relatively minor and had not yet migrated to upper leaves of the infected plants. Rather, the tan-spot infection was spotted on lower leaves, and the powdery mildew was observed on the stem. In this, these infections would not present a serious yield-risk yet as they have not yet affected the majority of the photosynthetic capacity of the plant. However, these are two to keep an eye-on, especially as we approach flag-leaf stages and with cooler wet weather in the immediate future.

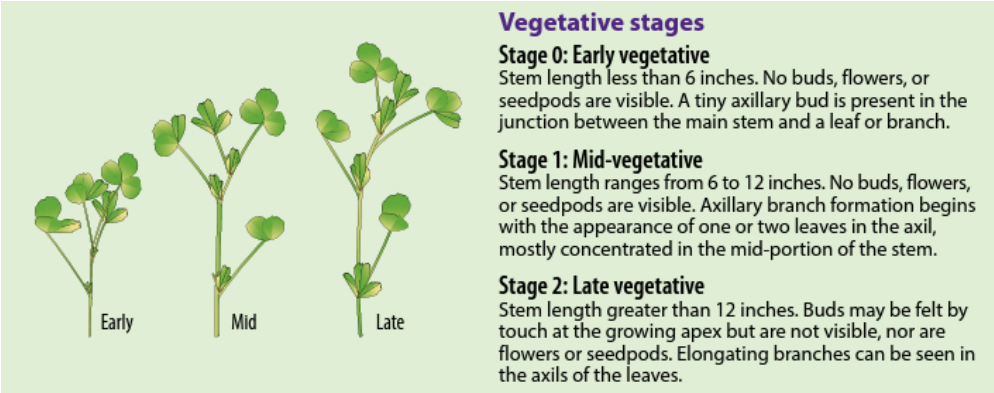
Credit: Mark Townsend

Mature cereal leaf beetles (CLB) were found in all scouted fields. Each field contained different populations: lowest observation: 3, highest observation: 8. CLB egg masses observed in each field. No larvae were observed in any of the scouted fields. Larvae present the most risk to the crop. However an important consideration will be the larvae/egg ratio in determining the potential risk to the crop. UMD IPM Guidelines indicate the economic threshold as 1 larvae/flag-leaf. Numerous lady-bugs were observed across all fields indicating a level of biological control of other insect pests (ex. aphids).

Small Grain for Forages:

Some growers of forage rye and triticale have begun chopping as these crops near or reach boot-stage. Previous scouting trips have indicated a level of water stress in a few triticale fields as plants appear smaller than what would be expected. This phenomenon is readily apparent in most barley across the region as many fields are showing headed out barley.

Alfalfa:
Scouted alfalfa fields appeared in good condition. Stands had been in place from 1- 3 years. Fields were just starting to enter late vegetative stage. Buds could be felt, but have not yet emerged.



Credit: Kansas State University

Credit: Mark Townsend

Two fields contained some degree of weevil damage. Operator addressed this concern prior to the scouting trip, thus no living larvae were observed. Weevil damage was present, as seen in the photo, however damage was relatively sporadic across the field without significant damage to any one plant or region. Advise to continue scouting for alfalfa weevil.

Other Crops:
Operators have begun planting corn in Frederick in the last two weeks, with some operators approaching completion having started earlier still. With insufficient rains, the soil has remained incredibly hard and may have resulted in some slow progress in some cases.

–Mark Townsend, Agent Associate.

Howard County

Orchardgrass is in boot at about 8”, ground is so hard some planters cannot get seeds deep enough. Frost one morning this week, soil temperatures holding near 59 degrees F. Strawberries look good, showing green berries, and apples are in bloom 60%. Wheat looks good across the region.

–Chuck Schuster, Senior Agent Emeritus.

Montgomery County

Wheat:

Fields were staged at Feekes 6-7 12-16” tall. Common winter annuals were present flowering and setting seed.

Aphids were observed with relatively low severity. Cereal leaf beetles are also present in similarly low populations. One field also had a healthy population of spiders, indicating a level of biological control of beetles, leafhoppers, and aphids.

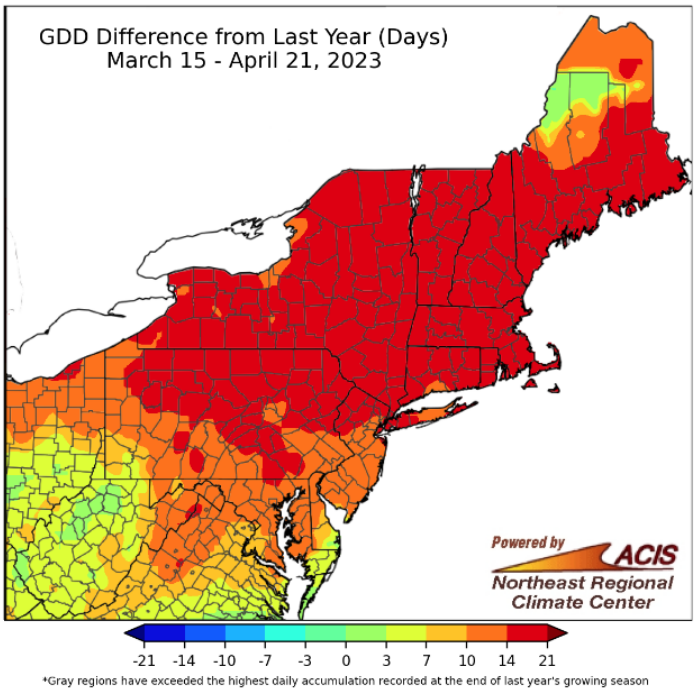
–Kelly Nichols, Agent.

Wheat looks really good for the most part but is entering a very critical time where continued lack of water will have a very negative impact on final yields. Lots of corn went into the ground this week. Some soil types are too hard to get the planter down far enough.

–Doug Tregoning, Agent (ret.)

Weather

Since green-up, we have accumulated a significant amount of heat-units that would have ordinarily driven this crop forward with typical rains. However, we are far dryer on average than in recent years. Figure 1 displays the current accumulation of Growing Degree Days (50 degree base) from March 15 - April 20, 2023 relative to last year (left image) and the 15-year average (right image). These figures suggest that Central Maryland is 10-14 days ahead of last year and 7-10 days ahead of the 15-year average.



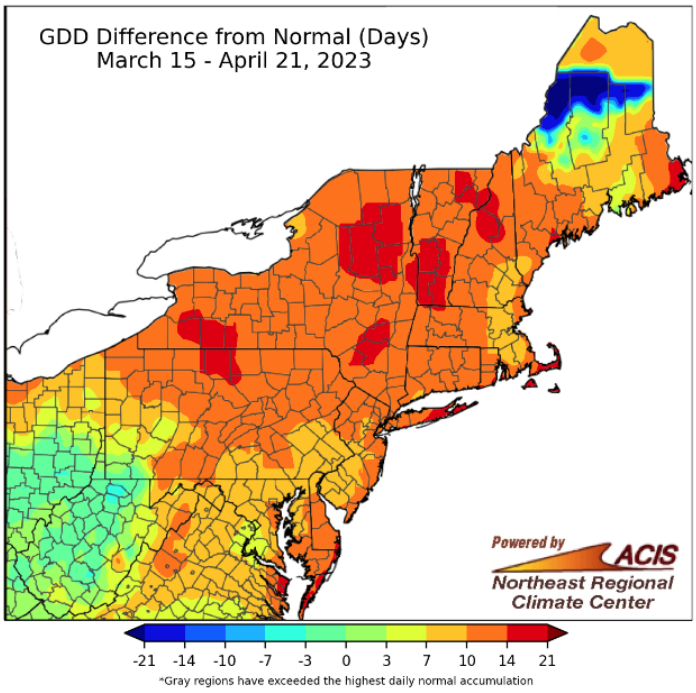
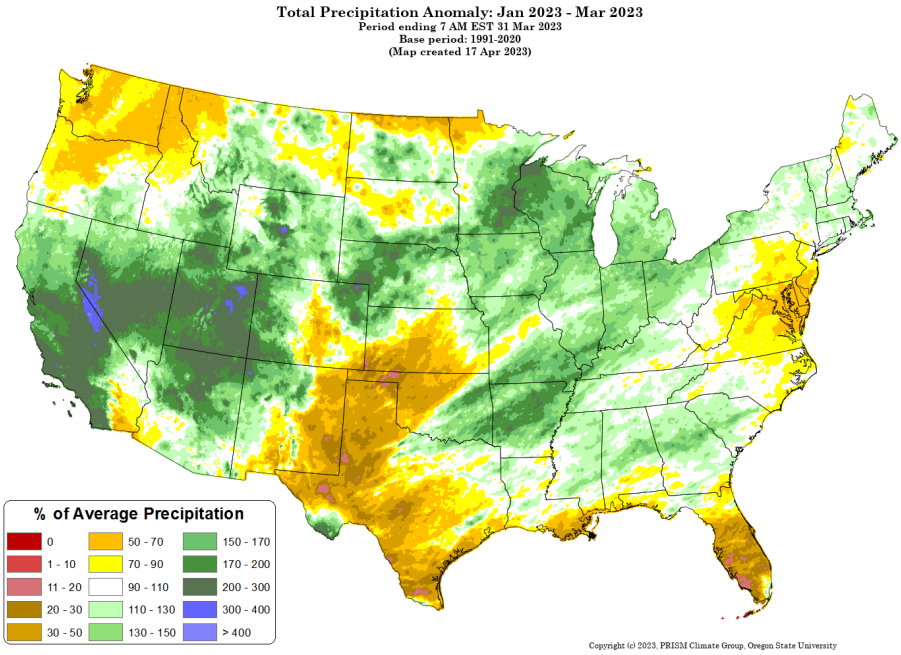
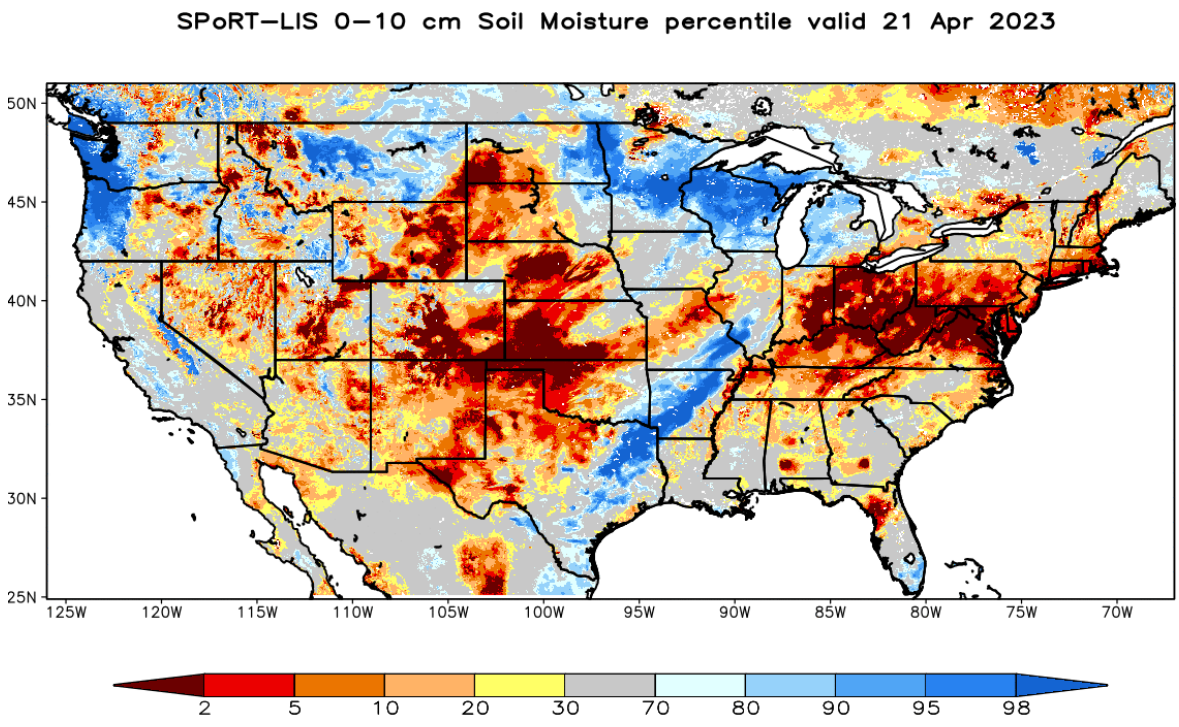


Figure 2 illustrates the current precipitation anomaly (relative difference) for the first quarter of the year relative to the average. We have received about 50-70% of normal rainfall thus far. In the last 90 days, our region has been about 3-5” short in total precipitation.



Obviously, the lack of rainfall has had implications on soil moisture. Observed soil moisture percentile data is displayed in figure 3 below:



Our region is thoroughly entrenched in the 2-5 percentile of soil moisture.

However, relief is coming. Much of the region is expected to receive rainfall over the next 24-48 hours. This will be a welcome relief as we may see some degree of soil moisture recharge heading into next week, with another potential for rain mid-week. Figure 4 displays the estimated volumetric soil moisture increasing to about 30- 40% from 20% today.