



Scouting Wheat:

Rainfall reported since April 1 through the week ending May 10 is 3.75 inches with 2.70 being normal. This is 139 percent of average and only the Southwest District is higher at 143 percent. The rest of the state is lower with some down to 53 percent – numbers reserved usually for the Panhandle. These numbers are from the NASS (National Agricultural Statistics Service).

The rainfall since April 1 has improved the wheat condition from concern to having great potential with some reserve moisture for continued growth and greenup. With this moisture and warm weather we should be concerned about any area **not** greening up – especially one that is not coincident with drill rows. This should warrant a CSI (Crop Scene Investigation) to determine the cause.

Possibilities for slow or slower growth can include:

- 1) **Russian Wheat Aphid** (RWA) may be found throughout the spring in winter wheat and has been reported in northeastern Colorado. Infestations are likely to be spotty. Sparse aphid populations can build up through mild winters to become a serious problem. The most serious impact occurs when significant aphid populations damage flag (curl) leaves and interfere with normal head emergence and development. Damage symptoms appear as visible white, yellow, or purple longitudinal streaks on the leaves and stems of wheat plants. Sometimes the high aphid numbers develop later and impact later maturing crops such as barley or even volunteer wheat.



Wetter than normal summers along with friendly host crops can then provide green bridges for aphid survival until the new wheat emerges. Does all this sound familiar?

RWA can have a border effect as they move from the bridge crop to the new plants and the infestation starts anew. When aphid populations are stressed, succeeding generations (every 7-10 days) can develop wings and travel further with the winds, resulting in more widespread infestations. Initial infestations of RWA can produce hot spots and that is what we are looking for now. The fall infestations eventually cause the most damage especially with a mild fall and winter. RWA control is another reason to control the bridge crops!!

- 2) **Wheat Streak Mosaic Virus** (WSMV) infections also will become visible in the spring. This will usually become evident as symptoms develop from the edge but may continue across the entire field. It becomes evident this time of year after a few warm 80 plus degree days that result in the wheat beginning to turn yellow. WSMV begins with a fall infection coming from the bridge crops – it is the adjacent crops that determine the severity of the infection. An extended warm fall can produce a secondary infestation. The prime areas to look for WSMV are areas that had hail near wheat crop maturity last year. There is no treatment for this disease.



- 3) **Black Grass Bug** – You may notice wheat grass areas turning white (CRP fields and road ditches for example) This damage is very likely from Black Grass Bug or Labops.



The black grass bug is native to our grasslands in low numbers but has flourished over the years with the wheat grasses (which they prefer) planted in the CRP acres. It damages by piercing and sucking contents out of cells and removing the chlorophyll. They start at the tip and work down (they are upside down on the plant) mostly on the upper surface. This cell damage is unique and well defined

compared to fungal diseases (excluding stripe rust). These can eventually the field a whitish cast depending on severity. This is not usually a



concern in CRP but it is for those in seed or forage production. In Montana 15 plants bugs per square foot resulted in 58% forage reduction and the remainder being less palatable.

This year we have seen this early visual damage in wheat (see pictures above). Labops in wheat normally remain along the edges but higher numbers could result in deeper field infestation. Any spraying is usually recommended along the field edges. The damaging actions, however, should be short lived with the new leaves showing improvement. The key is still to protect the flag leaf.

Conclusion: 1) It should be noted that healthy wheat is the best deterrent to withstand challenges mentioned above. 2) It is always important to determine why any crop areas are not greening up.

Upcoming Meetings:

Extension Crop Management Workshops: <http://ardc.unl.edu/registration.htm>

Crop watch (including Crop Protection Clinic Schedules): The latest edition of Crop watch has been posted to the Web at <http://cropwatch.unl.edu>.

Other web sites to reference:

Pesticide Education Resources: <http://PestEd.unl.edu>

UNL Extension in Box Butte County: <http://www.boxbutte.unl.edu/>

Institute of Agriculture and Natural Resources: <http://www.ianr.unl.edu/>

National Drought Mitigation Center: <http://www.drought.unl.edu/>

Wheat Varieties Virtual Tour: <http://www.panhandle.unl.edu/wheat/>

Market journal – Television for Ag Business Decisions: <http://marketjournal.unl.edu/>

UNL Department of Agronomy variety testing results by crop and year <http://varietytest.unl.edu/>

The High Plains Regional Climate Center: <http://www.hprcc.unl.edu/>

The Nebraska Agricultural Statistics Service: <http://www.nass.usda.gov/ne/cropwthr.htm>

For more information on these and other educational programs stop in at **your** UNL Extension office in Box Butte County at 415 Black Hills Avenue or call 762-5616. You can also check the KCOW or Box Butte Extension web sites.

This is Bill Booker, Extension Educator, for your UNL Extension.
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