



# Cornell University Cooperative Extension

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*The NYS IPM Weekly  
Field Crops Pest Report  
is at [http://  
blogs.cornell.edu/  
ipmwpr/](http://blogs.cornell.edu/ipmwpr/)*

**Topics in this issue:**  
**Storing Wheat & Bar-  
ley**  
**Spider Mites on Soy-  
beans**

## Capital Area Ag Report July 22, 2020

### Announcements

**Friday, July 31, 12:15-1:00 PM—WEBINAR—Brassicas and Other Cool-Season Annuals with Heather Darby of UVM Extension. REGISTER: <https://attendee.gotowebinar.com/register/1146633804470769936>**

Even though Empire Farm Days was cancelled, the Soil Health Center is putting on a **Virtual Soil Health Center Program!** The event will consist of three workshops **July 29-31st**, each registered for CCA credits. **Info & registration for one or all sessions at: <http://newyorksoilhealth.org/virtual/agenda>**

### FYI

**Drought-Stressed Soybeans: Keep an Eye Out for Spider Mites:**

<https://blogs.cornell.edu/ccefieldcropnews/2020/07/16/drought-stressed-soybeans-keep-an-eye-out-for-spider-mites/>

**Informative resource for harvesting quality forages and ensuring safe practices:**

Silage Safety Video

<https://www.youtube.com/watch?v=O6DAMGb380I&t=38s>

Silage Safety Handbook

Link to request a hard-copy handbook: <https://qualitysilage.com/handbook/silage-safety-handbook/>

QualitySilage.com

<https://qualitysilage.com/ensure-silage-safety/safety-tips-for-harvest-and-ensiling/>

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## Agronomy Notes—Aaron Gabriel

**Grain Storage Management:** Wheat and barley are being put in grain bins and storage bags. I measured the temperature of newly harvested rye in one grain cart at 91.5°F. Small grains are harvested in hot weather, and they must be cooled down in storage. Insect activity does not stop until it gets down to 50°F. For now, we need to reduce grain temperatures to the ambient temperature.

As we blow air through a mass of grain, we create a “**moisture front**”. The air picks up moisture as it moves up through the grain mass (assuming the grain is in a bin with air entering the bottom). The moist front is a zone of increased humidity. The moisture front slowly moves up the grain mass and eventually exits—provided that you continually run the fan until the moisture front has moved completely up the grain mass.

*If we turn off the fan before the moisture front has moved up and out of the grain mass, we get a band of high moisture part way up the bin of grain.*

*Mold and insects will destroy the grain in that band.*

There is a rule of thumb to determine how long fans must be run to move the moisture front up and out of the grain: hours = 15 / (cfm/bushel). You must know your fan capacity and bushels of grain in the bin to determine the aeration rate (cubic feet per minute of air per bushel of grain).

If you only turn on the fans at night, then turn them off in the morning, you can get a zone of concentrated moisture part way up the bin if that moisture front is stalled. Run the fans constantly until the moisture front is gone.

You can monitor the moisture front by opening the hatch at the top of the bin and smelling the air. Is it musty or moist? You can also measure the grain temperature (with a long-stemmed thermometer or grain thermometer) and compare it to the ambient temperature and/or the grain temperature at the bottom of the bin.

Here is a good article, “Wheat and Barley Storage”: <https://conservancy.umn.edu/bitstream/handle/11299/50794/05947.pdf?sequence=1&isAllowed=y>



**Tools for measuring grain temperature and moisture. The thermometer is screwed onto 3/8” threaded rod and pushed into the grain at varying depths.**