Volume VII | May 1 Day 2022

# May Newsletter

If you spend any amount of time throughout the Montana countryside, it won't take long to notice that spring planting is in full swing here in the Big Sky state. Producers took full advantage of the dry conditions early in the month and were able to get a jump on planting. Although not ideal given the extensive drought, the dry weather is beneficial for producers hoping to get seeds in the ground.

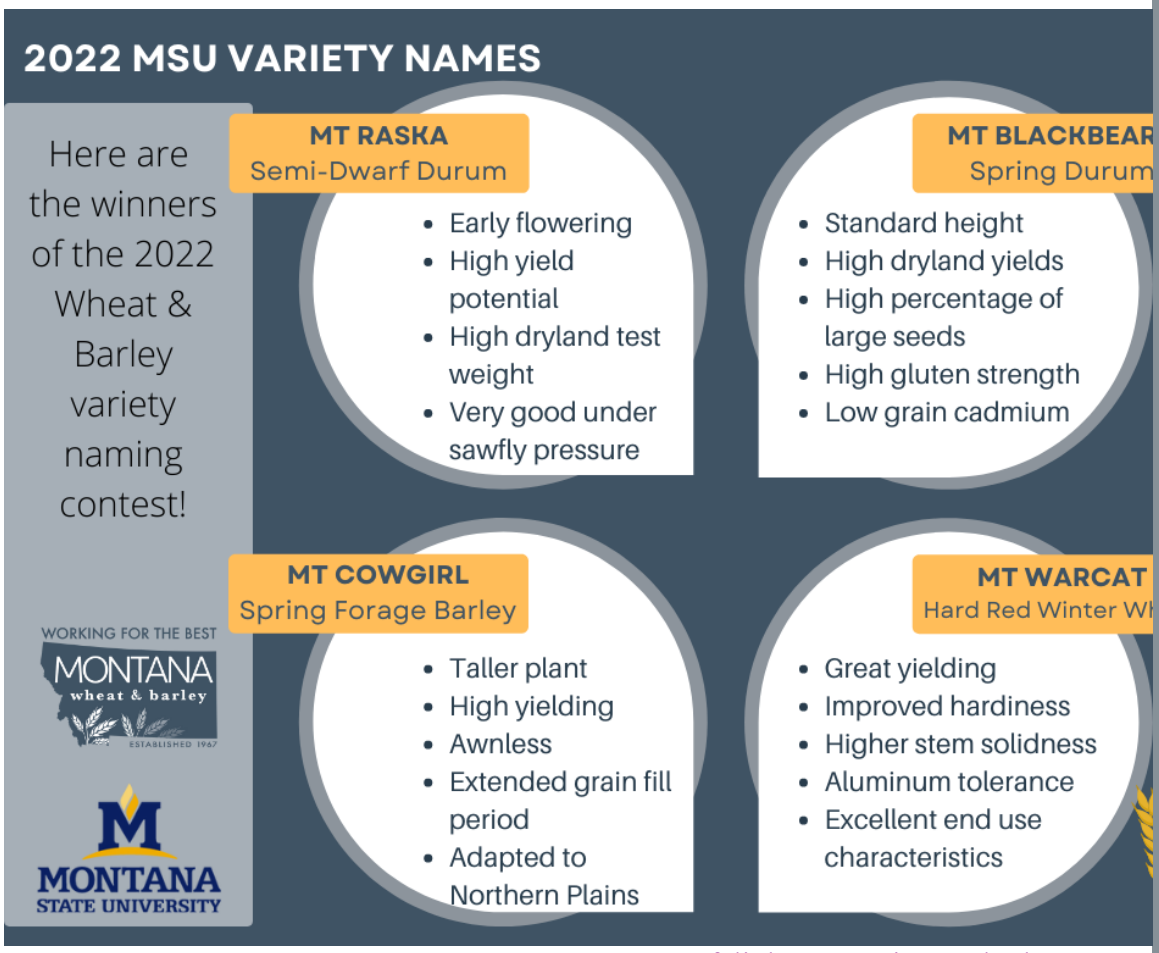
Saying that we've been praying for moisture throughout the state of Montana is an understatement. Although the month started out dry, there is some good news to report. A round of heavy and wet snow blanketed a good portion of the state halfway through the month. Since this round of moisture moved through, we've managed to pick up a few quick shots of moisture every few days.

Another positive from last month was that we we're able to host an in-person trade team! This is the first in person visit we've had in over a year and it was refreshing to meet face to face again. We are expecting a few more in-person visits this summer.

And finally, make sure you keep an eye on our YouTube Channel and Facebook page as we head through the growing season. We'll be posting crop updates from across the state. These digital crop reports

from producers will help to highlight how the conditions are shaping up and will provide a firsthand look at what growers are experiencing.

–Jason Laird
Communications and Marketing Director

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After inviting the public to help name three new publicly released wheat varieties and one new barley variety, the Montana Wheat &

Barley Committee (MWBC) and Montana State University Plant Sciences and Plant Pathology Department (MSU) is announcing the highly awaited results.

**The official winners are…**

MTD18313 (Semi-Dwarf Spring Durum) – MT Raska
MTD18348 (Spring Durum) – MT Blackbeard
MT16F02902 (Spring Forage Barley) – MT Cowgirl
MTS18149 (Hard Red Winter Wheat) – MT WarCat

"Allowing Montana producers as well as consumers around the world the opportunity to name the new varieties was a great way to highlight the MSU breeding programs and not only get people excited, but also involved in the work happening in varietal development," said Executive Vice President of the Montana Wheat and Barley Committee Cassidy Marn. "The response rate was extremely high, and we are excited for growers to have four new tools to utilize in their operations in the future."

The committee's goal was to generate excitement and get more people involved with this year's plant variety releases. A list of clever possible names, many honoring industry legends or locations throughout the state, for three new wheat varieties and one new forage barley variety and was populated for the public to vote on.

The voting generated hundreds of submissions as well as media coverage from around the nation.

**MT Raska** is described as an early flowering semi-dwarf durum that has high yield potential, maintains high test weight even under very dry conditions and has very good standability under sawfly pressure. The new variety gets its name from long-time industry

leader and former Executive Director of the Montana Grain Growers Association Lola Raska.
“This is a very nice honor and I’m truly humbled,” said Raska. “It’s especially meaningful to me for a couple of reasons, one, because the name was chosen by growers across the state who took the time to vote in the naming contest and two, because Durum was the long-time crop of choice on my family’s farm in Northeastern Montana.”

**MT Blackbeard** is described as a standard height durum that yields very well under dryland conditions and has a high percentage of large seeds, high gluten strength, and low grain cadmium.
“We are excited about the recent release of both MT Raska and MT Blackbeard,” stated Dr. Mike Giroux, Professor and Plant Sciences and Plant Pathology Department Head.
“Both of these new varieties have very good yield potential under dryland conditions, and both should fill a niche and offer growers improved yields versus currently available durum varieties,” said Andy Hogg, Research Associate at MSU.

**MT Cowgirl** is described as a taller, high yielding, awn-less forage with an extended grain fill period that is certain to be widely adapted in the Northern Plains

**MT WarCat** is described as great yielding, with
improved winter hardiness and higher stem solidness than
Loma, aluminum tolerance, and excellent end use characteristics. End users will be delighted to see high falling numbers, low PPO, high water absorption and strong mix times.

## Do Wheat Stem Sawflies Impact Yield Other Than By Stem Cutting?

## Your Checkoff Dollars at Work

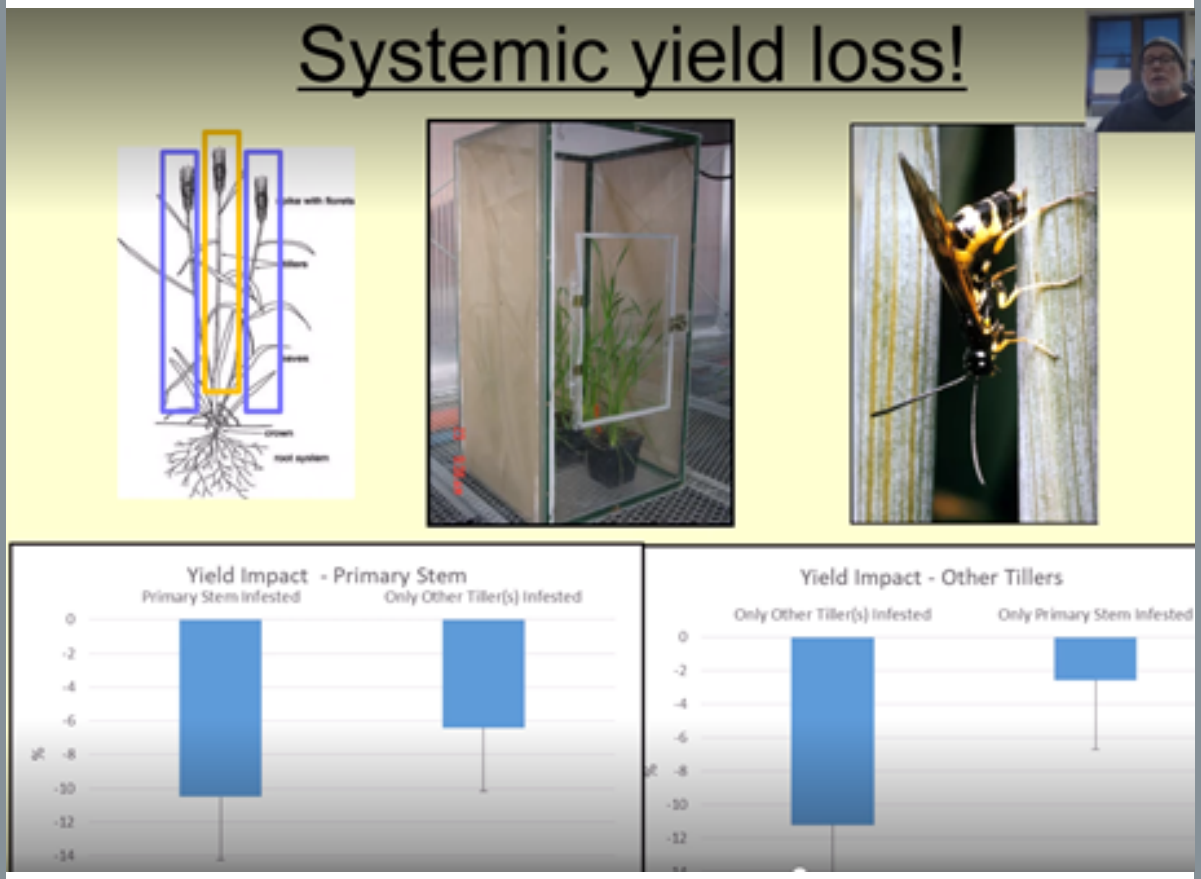
The wheat stem sawfly (WSS) is the major pest of wheat grown in Montana and is a key pest throughout the northern Great Plains. Annual losses in the area impacted by the wheat stem sawfly are estimated to be at least several hundred million dollars.

There are 2 types of yield loss related to WSS:

**Stem Lodging Loss** typically ranges from 10-20% (or more) yield loss per field. This loss is easily seen, cut stems have tipped over, with complete heads on the ground. Seasoned WSS-effected producers are very familiar with swathers and pick up headers to help combat lodging losses. This is imperfect, and growers should go to fields well after harvest to assess the success of this operation. Cut stems with heads laying on the ground are unrecovered losses.

**Systemic Yield Loss**: 10-30% yield loss per infested stem, systemic larval feeding damage results in reduced ability of the plant to send yield components to the head, significantly impacting the ability to grain fill. The only way this type of loss is detected is by cutting open the stem and identify feeding by the WSS larvae.

**How Do These Interact at Harvest?** Very simply, a cut stem that makes it into the combine hopper has that 10-30% systemic yield loss built in. A cut stem remaining on the ground is 100% lost. Systemic yield loss occurs in swathed fields, no matter how excellent the harvest practice is because this loss has already happened when equipment arrives.




Why not plant the highest yielding hollow stem variety and swath? **Systemic yield loss is the real problem, along with cultivation of a growing WSS population.**

The charts above are the latest wrinkle – and not good news. A wheat plant typically produces about 3 stems – or tillers – per seed in a wheat field. Because of plant architecture and plumbing, this systemic yield loss due WSS larval feeding occurs across all stems, even if only one stem is infested (3-10% loss in the uninfested stems). The way yield loss has been viewed in the past does not account for this decreased yield in the uninfested stems of an infested wheat plant. Thus, losses are greater than previously believed. It is extremely important to decrease WSS numbers across the landscape in Montana wheat and barley production.

The key strategy to combating WSS is deployment of solid stem varieties, coupled with continuing development of superior host plant resistance. The small larvae struggle to survive in a more solid stem resulting in greater larval mortality. Typically, solid stem varieties on paper have lower yields than hollow stems. If you produce wheat in WSS impacted regions, please consider solid stems or use both solid and hollow varieties, with solid stems dedicated to the most seriously impacted areas. Hollow stems will stimulate larger WSS populations resulting in a bigger problem down the road. Contact your local seed dealer or MSU varietal specialist to develop a science based WSS management plan.

This insect can develop in most cereal crops, plus cultivated and wild grasses. Losses are typically less apparent in barley and oat is invulnerable. Recent evidence suggests that the wheat stem sawfly is probably native; yield impacts similar to here in Montana are now being seen in Colorado wheat regions. The WSS in Colorado did not come from Montana, but the reproductive cycle of native Colorado WSS has recently adapted to the wheat growth cycle there. This ongoing adaptation will continue to synchronize local WSS to wheat grown in Kansas and Oklahoma, and damaging populations will soon occur there as well.

The Montana Wheat & Barley Committee has invested Montana State University's Wheat Stem Sawfly laboratory for the last 2 decades. Funding promising parasitoid population efforts, product development, solid stem varieties and best production practices are showing great advancements. Stem susceptibility and stem solidness have an interesting relationship, one new goal is to breed for varieties that have high stem solidness during WSS susceptibility, kill the larvae and then become hollow – for larger yields. This is all in the works for Treasure State producers, and we encourage producers to attend field days to see firsthand what the future will look like.

-Dr. David Weaver
Montana State University Professor
-Sam Anderson
Market Development Director
Photos: Jackson Strand

# The Philippines

## Partner Spotlight

The Philippines have seen a tremendous period of growth in the past decade and wheat imports have been a major benefactor of this growth.

In the marketing year (MY) 2019/2020 the US set a new export record to the Philippines with imports of all US wheat classed exceeding 3.14 MMT, with the majority of imports being hard red spring wheat. According to data collected by Euromonitor, Filipino consumers consider loaf bread an essential item with purchases rising by more than 10% through 2020, even during the pandemic. Currently, approximately 50% of the flour sold in the Philippines is used for bakery products like bread and hamburger buns, with 20% going toward noodles, and 25% for crackers, cookies and cakes, along with small amounts for pasta and snack foods. The long-term trend in the Philippines is to consume less noodles than neighboring Southeast Asia countries, which puts a very high priority on bread products. And although rice consumption is four times higher than wheat, the growth pace for wheat is substantial.

Since 2013, the Philippine milling industry has seen four new flour mills become operational, and with that wheat imports have nearly doubled in the same time frame. Imports of 7 million metric tons

(MMT) each of the past three marketing years consistently place the Philippines as a top market for US wheat. The United States typically controls over 90% of the milling wheat market, although improved production in Australia makes their Australian Prime Hard (APH) high protein wheat a viable competitor.

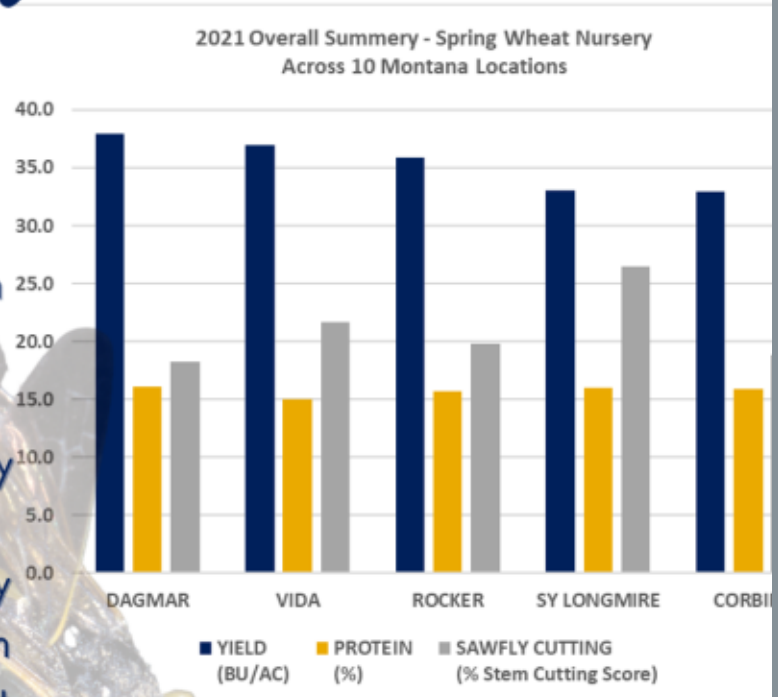
The baking industry in the Philippines has also seen tremendous evolution. Small and medium bakeries account for around 50% of the market share, with fewer than 100 bakers full or semi-mechanized. Large volume bakeries have capitalized, and mass production has become a trend as bakery operations look to reduce selling price and improve competitiveness and efficiency. Expansion requires the flour milling industry to maintain higher quality and consistency to meet the needs of these advanced production lines, which is an excellent fit for the high-quality wheat grown in Montana.

Our partners at US Wheat Associates (USW) have done a tremendous job in the Philippine market. A study funded in 2020 shows that consumption is driven by cost, sense that food is filling and energizing, healthfulness, and convenience. With this information, USW and the milling industry produced an excellent consumer campaign to promote the benefits of US grown wheat.

-Cassidy Marn
Executive Vice President

# High Yield and Sawfly Tolerance

Take a look at **Dagmar**! The highest yielding variety on average from 2018-2021 with excellent stem solidness! **Dagmar** was bred by Montana State University specifically for its high yield, high protein and excellent end-use quality across all areas of Montana!




To view the complete listing of the 2021 variety trial resul scan the QR code!

MONTANA STATE UNIVERSITY | MONTANA AGRICULTURAL EXPERIMENT STATION

BranDee Johnston
brandee.johnston@montana.edu | 406.749.4154

Photo Credit: RKD Peterson

## Working For The Best!

The **Montana Wheat & Barley Committee** promotes local research and develops trade markets around the world.