SD Wheat, Inc., exists to represent the South Dakota wheat producer at the Capitol in Pierre during the legislative session. The 2020 Session will run from January 8th through March 12th and will address multiple issues which will affect South Dakota Agriculture. But as you well know, one person cannot move or stop legislation.

It's one thing to talk about political issues, and another to become active and actually change legislation. As your lobbyist, it is my job to inform you of the issues and provide direction to accomplish our goal. Whether we want to pass the bill or defeat a bill, the work is all the same. Producers need to respond when there is a Call To Action request!

There are several issues that will be introduced during the upcoming Session. Do you feel strongly about any of the following issues?

- Ag land assessments
- Agricultural zoning restrictions
- Department of Agriculture fee increases
- Production of industrial hemp
- County and township road repair
- Proposed changes in teen driving restrictions
- Financially restricted state budget
- Upcoming elections

The single most effective way to change laws or proposed laws is to contact your local legislator. As a lobby organization for the wheat industry, we are here to help you do just that. The office can provide phone numbers, email addresses and arrange meetings to meet with your legislators to explain your perspective on an issue so that the legislator understands the effects it has on you and your operation. But YOU must become engaged and make the first move. Make a call to the SDWI Office at 605-224-4418, send an email wheatinc@midco.net or go online at sdlegislature.gov. Better yet attend a cracker barrel in your community.

SD Wheat, Inc., also represents SD producers on a federal level. Our Congressional officials vote on multiple issues throughout the year that affect your farming operation. On January 15 through the 18th, several SDWI Board of Directors will travel to Washington, DC to visit one on one with Senators John Thune and Mike Rounds and Representative Dusty Johnson. The number one topic will be Farm Bill implementation.

While in DC, we will also be attending the National Association of Wheat Growers (NAWG) winter meeting. We represent one of 20 states which belong to NAWG. In 1950, a handful of wheat growers from across the country formed the National Association of Wheat Growers to work toward common solutions and make decisions for the future of America’s wheat producers. Decades later, NAWG continues to focus on the policies of the U.S. government that affect the livelihoods of U.S. wheat producers.
Although we are surrounded by winter it is never too early to start thinking about how Spring Wheat can be incorporated into your 2020 crop rotation. We may have little control over the weather and the markets; however, we can influence the future through the many agronomic merits of wheat:

- Manage and distribute fall and spring work loads
- Diversify your crop rotation system
- Yield boost for future row crops
- Early access to manure ground next fall
- Improved soil structure and valuable residue
- Pheasant nesting habitat in spring and early summer
- Break disease, insect and herbicide resistant weed cycles
- Increased opportunities to include cover or forage crops

I encourage you to thoroughly review the 2019 Annual Report of the South Dakota Wheat Commission that is included as an insert to this issue of the Prairie Grains magazine. Your check-off investments are providing tremendous impact upon the future of the wheat industry!
Established in 1996, Commodity Classic is presented annually by these associations:

- Educational sessions that will change the way you think about your farm.
- Insights and inspiration from well-known speakers and ag thought leaders.
- Huge trade show with the latest innovation, technology and equipment.
- Networking with thousands of high-caliber farmers.

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It is the mission of Ag Horizons to provide a broad spectrum of farming practices and ideas to help “Grow Your Future”. A one-stop-shop if you will, to improving your farm production. In two short days we offered six keynote speakers and 25 different presentations on a buffet of topics. Many seminars were standing room only because of this year’s record attendance.

Daniel O’Brien, Kansas State University, brought the current market perspective to our attendees as he presented “Grain Market Outlook 2020” during his first presentation. On the second day he discussed what might be in store for the future with “Focusing on Regional Cash Markets”. This tied into two other presentation resulting from the Ag Land Assessment Task Force titled “Land Use Assessment” by Matthew Elliot, SDSU and “Property Assessment” by Lesley Coyle, Department of Revenue.

Brian & Jamie Johnson, the 2019 Leopold Conservation Award Winners shared their farming strategy. Jason Mauck with Constant Canopy shared his thoughts about “Using Nature to Improve Profits” setting the stage for our conference by talking about farm diversity. Stanley Boltz, with NRCS, presented “Planning Alternate Forage Grazing" to expand farm and ranch options. One of our breakout sessions included Lori Tonak, from Mitchell Technical Institute, as she presented “Financials During Stressful Times” where she reminded us all of the importance of having a solid understanding of the business and financial aspects of our farming operations.

“Estate Planning Basics” presented by John VanHove, provided insight to allowing parents to enhance the lives of all of their children during the transitioning of the legacy. Parents need children and the children need their parents. Understanding what the “need” is becomes the first step of the transition. Ag Horizons, continues to offer "Industry Seminars" where six different corporations highlight new techniques and innovations. Our speakers included Thomas Staddard with Calyxt, Paul Drache, with Central Life Sciences, promised “Rescue for Bug Infested Grain” with his long and short term storage needs. Sponsored by Sioux Nation and Plains Gold, Tyler Benninghoven, presented FusionAX — CoAxiuem for grass control in wheat. Wally West with Syngenta provided “Wheat Disease Management” and Steven Dvorak talked about Veritas Seed Data.

Of course, many of SDSU professors, staff, specialist and agents, were on hand to help with crop diseases, insect diagnosis, soil & crop management solutions as well as new crop varieties. And finally, but certainly not last, was the discussion of soil health! Five separate seminars with presenters from NRCS, Soil Health Coalition and independent producers covered subjects that included precision ag, soil infiltration, cover crop selection, soil management, water quality, and improving soil health.

Have only touched on a few of our presentations to give you an inside look at what Ag Horizons provides for its attendees. There isn’t enough space in this issue to go into the information provided by exhibitors and social networking that also takes place.

Our hope is to see you in Pierre, for our 2020 Ag Horizons held on December 1 & 2, at the Ramkota RiverCentre. Thank you to all our sponsors and attendees from our hosted which include South Dakota Crop Improvement Association, South Dakota Oilseeds Council, South Dakota Pulse Growers, South Dakota Seed Trade Association, South Dakota No Till, South Dakota Soil Health Coalition, South Dakota Wheat, Inc., SD Soil & Water Conservation Society and SD Association of Conservation Districts.
Congratulations to all of our 2019 Wheat Yield Contest winners. Awards presented at Ag Horizons on December 11th, in Pierre, included a 1st place in each District of $500, and a 2nd place in each District of $300.

The Board perceives the “Wheat Yield Contest” as an opportunity to highlighting producers and varieties that out preform in their area. The contest provides documentation for yield results, including chemical inputs and farming practices. Email us at wheatinc@midco.net or go to our website www.sdwheat.org to print off the 2020 participation form. Our Contest is funded 100% by our sponsors! SD Wheat Inc., would like to “Thank” our sponsors for their financial support: CHS Midwest Cooperative, CHS Southwest Grain, CHS Northern Plains, Agtegra, Oahe Grain Corporation, Sioux Nation and Dakota Mill & Grain.

We encourage everyone to participate in next year’s Wheat Yield Contest, the application deadline is May 15, 2020. SD Wheat, Inc. is your lobby arm for the wheat industry as well as distributing information through our SD Wheat Advantage newsletter found in the Prairie Grains Magazine which provides educational information and industry highlights.

CONTEST ENTRANT QUALIFICATIONS
1. To enter, you must be an SDWI member in good standing. A one-year membership ($100) will be included with your entry fee.
2. A farm entity or operation may enter more than one entry.

CONTEST FIELD AND ENTRY QUALIFICATIONS
1. The state will be divided into seven separate reporting regions. The location of the field, NOT the entrant address, will determine the region of the entry.
2. There will be two classes in each region for 2020.
3. Contest field must be at least 10 continuous acres of one variety number.
4. Continuous being defined as “not separated by public roads, permanent field roads, or waterways that are delineated out of FSA maps or other structures or features that cause a field to be “farmed” separately.”
5. Out of this field, a minimum of 2.5 acres must be harvested for the “official” weight/yield. There is no maximum size for the official weight/yield.

SUPERVISOR ELIGIBILITY QUALIFICATIONS
1. The supervisor’s names must be on the SDWI contest entry form along with their title, address, telephone and e-mail address before the entry can be accepted. The supervisor’s responsibility is to oversee the harvest and make the final computations of yield based on an accurate weight, moisture and calculated area. It is the responsibility of the entrant to submit the final paperwork.
2. A supervisor cannot be related to the contestant, employee of the contestant, be a seed company representative, chemical company representative, retail fertilizer representative or in any way have any interest in the crop. Examples of qualifying supervisors would be local extension personnel, local bankers, FFA Advisor, SDWI Board members, etc.

**Contest Winners**

<table>
<thead>
<tr>
<th>Contestant</th>
<th>Year</th>
<th>District</th>
<th>Variety</th>
<th>Weight/yield</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kevin Neuhauser</td>
<td>2019</td>
<td>2nd Place</td>
<td>Winter Wheat</td>
<td>65.80 bushels per acre</td>
</tr>
<tr>
<td>Crystal &amp; Levi Neuharth</td>
<td>2019</td>
<td>1st Place</td>
<td>Winter Wheat</td>
<td>83.84 bushels per acre</td>
</tr>
<tr>
<td>Wyatt Leesman</td>
<td>2019</td>
<td>1st Place</td>
<td>Spring Wheat</td>
<td>84.82 bushels per acre</td>
</tr>
<tr>
<td>Skyler Leesman</td>
<td>2019</td>
<td>2nd Place</td>
<td>Spring Wheat</td>
<td>84.43 bushels per acre</td>
</tr>
<tr>
<td>Abeln Farms</td>
<td>2019</td>
<td>1st Place</td>
<td>Spring Wheat</td>
<td>60.21 bushels per acre</td>
</tr>
<tr>
<td>Abeln Farms</td>
<td>2019</td>
<td>2nd Place</td>
<td>Spring Wheat</td>
<td>48.72 bushels per acre</td>
</tr>
</tbody>
</table>

**Wheat Yield Contest Results**
Why to keep grain cool

Keeping grain cool reduces mold and insect activity. Activity slows at temperatures below 60 degrees Fahrenheit and almost ceases below 40.

Because daytime temperatures usually exceed 60 degrees in late summer and early fall, you may need to operate fans at night to start the cooling process. Don’t worry too much about high nighttime relative humidity—grain rewetting is unlikely to be a problem.

Another reason for aerating grain is to keep its temperature within about 20 degrees of the average outdoor temperature. This prevents moisture migration. If warm grain is stored into cold weather, natural moisture movement from warm grain to cold rewets and spoils grain at the top of the bin (Figure 2).

Recommended storage temperatures

The recommended winter grain storage temperature in northern Minnesota is about 25 degrees. Watch forecasts for 20- to 30-degree weather and operate aeration fans 24 hours a day in late fall to cool grain for winter storage.

How long it takes to cool the grain

The time required to cool a bin of grain depends on the airflow per bushel provided by the aeration fan. The recommended aeration rate for farm bins is 0.1 cubic feet of air per minute (cfm) per bushel of grain in the bin.

The rule of thumb for how many hours it takes to cool grain is 15 divided by the aeration rate in cfm per bushel. If the aeration rate is 0.1 cfm per bushel, approximate cooling time is 15 divided by 0.1, which is 150 hours.

However, the only way to for sure know that cooling is complete is to actually measure the temperature of the grain or the air exhausting from the grain. If grain isn’t cool enough after a cooling zone has completely moved through the bin, repeat the aeration cycle when the weather gets colder.

You don’t need fully perforated floors to aerate dry stored grain—simple duct or pad systems are adequate. You can use either positive or negative pressure systems to aerate dry stored grain.
Given the widespread wet conditions present this spring, there are many areas in winter wheat fields with both ponding and saturated (or waterlogged) soils. Like many crops, winter wheat can survive about 3-4 days underwater as long as there are some leaves showing. Cooler conditions may increase survivability as plant respiration is occurring at a slower rate.

Flooding or waterlogging causes oxygen in the root zone to be rapidly depleted, and the ensuing deficiency of oxygen affects several plant physiological processes. Furthermore, waterlogging impairs nitrogen uptake and also increases the probability of denitrification and leaching.

How Will it Affect Yield?

Even though plants may survive a flooding event, some research suggests that waterlogging for as little as 24-48 hours may reduce grain yields. In contrast, another study noticed no yield penalty after four days of waterlogging. Why the differences? Not all studies were performed at the same growth stage or in the same environment. However, all agree that waterlogging will affect plant growth and yield more at early vegetative growth stages than at later vegetative and reproductive growth stages. Extended periods of waterlogging (10 days or more), no matter the growth stage, show yield losses of 20 to 50 percent.

Some varieties of wheat have the ability to develop adventitious roots (similar to brace roots in corn) that serve as the functioning root system when growth of the seminal roots is restricted due to saturated soils. While adventitious roots may help a plant survive for a short period of time, their growth is limited and the wheat plant will eventually suffer if the waterlogged conditions persist.

Considerations Moving Forward

Producers may want to consider soil conditions and evaluate extended weather forecasts when deciding whether or not to retain a winter wheat this spring. Some research suggests that a rescue application of nitrogen may help to speed crop recovery once waterlogged conditions have abated. However, this will not work if: 1. waterlogged conditions return or; 2. Wheat plants have been injured beyond the point of recovery. As always, stand counts and an assessment of plant health can aid producers in making informed decisions. Instructions for winter wheat assessment can be found in the article “Winter Survival and Spring Stand Counts in Winter Wheat.”

Varieties that lead the industry. And lead you to better returns.

With AgrPro® brand wheat varieties continuing to push for genetic diversity, it’s no wonder AgrPro makes up the largest portfolio in the wheat industry and consistently ranks in the top yield groups in every region. New releases show improved yield cf 3 to 5% over current varieties. It's time to plant these top-performing wheat varieties in your field.

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**SY Ingmar** — Protein leader for maximum premiums
**SY Valda** — Superior yield

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Wheat: The World's Essential Grain

Cultivated for 10,000 years, wheat is one of the world's most important plants. Today, U.S. farmers grow about 50 million acres of wheat, providing food for hundreds of millions of people at home and abroad and supporting jobs in rural communities as well as mills, bakeries, grocery stores and restaurants.

Wheat by the Numbers

52.6 bushels of wheat per acre were harvested during the 2016 crop year. In fact, a 1,000 bushels can be harvested per hour from a modern combine.

6 classes of wheat are produced in 42 states in the United States. U.S. wheat farmers are among the world's most productive, and U.S. wheat is known worldwide for its consistent high quality.

$0.10 of every dollar spent on a loaf of Sara Lee Classic Wheat Bread ($2.99, May 2017) goes to the wheat farmer.

21.0 million full- and part-time jobs were related to the agricultural and food sectors—11.1 percent of total U.S. employment in 2015. Direct on-farm employment accounted for about 2.6 million of these jobs, or 1.4 percent of U.S. employment.

Wheat and “bread” are closely tied in many people's minds. However, wheat is also used to make pasta, flat breads, cookies, cakes, cereals...even twizzlers!

Wheat by the Numbers

2.309 billion bushels of wheat were produced in 2016/17. Wheat ranks third among U.S. field crops in planted acreage, production and gross farm receipts, behind corn and soybeans.

6 one-ounce servings of grain per day are recommended by USDA and nutritionists for the average American. Half of these servings should be from whole grains.

17 billion base pairs make up wheat's genetic material, five times more than the human genome and 40 times more than the rice genome.

20 percent of calories consumed by humans are from wheat, according to the United Nations. The complex carbohydrates in bread and other grain-based foods provide essential fuel the body needs.

DIVERSITY OF WHEAT IN THE U.S.

Wheat farmers support their local, rural economies by buying inputs from local suppliers, selling their products to local elevators, paying property taxes and frequenting local businesses.