LEGACY Seeds
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AGRONOMY NEWSLETTER

DECEMBER 2019

WALKING FIELDS

STILL STANDING STRONG?

Harvest progress in Wisconsin is slowly trudging ahead with about 57% of corn harvested for grain in the November 24th USDA Crop Progress and Condition Report. These numbers can be confirmed by driving through the trade area. A lot of Wisconsin's corn crop is still standing in the field. This is a crop that has been put through the wringer all season long and all things considered is still standing strong. With harvest struggles of wet fields, freezing weather, excessive drying and LP shortages some growers have told me that the field is the best spot for the crop at this moment. We can all agree that a solid standing crop could help growers navigate around these logistical challenges but at what cost?

Drying rates at this time of the year might be around 1-2% of moisture per week. Shank strength is subject especially on later planted fields. Impending snow storms could cause severe lodging costing up to 30 bushels per acre. Wildlife feeding pressure will increase as other food sources become limited. Mold and mycotoxins will continue to grow and continue degrading grain quality. The risks far outweigh the benefits of leaving corn stand in the field into the winter months. The many challenges are making this harvest season the toughest in recent memory but to preserve as much yield as possible, growers should continue to grind away at the 2019 harvest season.

ONE FOR THE RECORD BOOKS

2019 AGRONOMIC YEAR IN REVIEW

As we prepare to turn the calendar to 2020, let's look back at a growing season that many of will not soon forget. I spent quite a bit of time tracking weather conditions at the Research and Learning Center in Waupaca in 2019 to gain a better understanding of how products and management react to the unique conditions of each growing season.

Fall of 2018, had challenging harvest conditions caused by over 14" of rainfall from August to the end of October. The above average precipitation trend continued into February and April of 2019. Excessive moisture caused difficulties in planting alfalfa, corn and soybeans on time, fertilizer and herbicide applications and spring tillage. From February through June, average monthly temperatures were below the 30-year average. Limited heat unit accumulation, especially in May, paired with excessive soil moisture proved that waiting for optimal soil conditions for planting corn was critical to success.

Very few heat units were "lost" by delaying planting a couple days in waiting for better soil conditions. However, late planting of corn and soybeans did show a yield penalty.

Heat units continued to play a critical role in 2019. On July 1st in central Wisconsin the accumulated heat units lagged behind the 30-year average by 160 Growing Degree Days. Although July was above average for monthly GDD's, it was not by a wide enough margin to overcome the deficit from earlier in the season. June and July also showed above average rainfall which only added to saturate soils. During this critical V4-V6 timeframe in corn and flowering in soybeans very little stress was displayed in the delayed crops if fertility and weed control were adequate. Later into July there were many widespread wind events and hail storms that caused localized stresses and standability issues.

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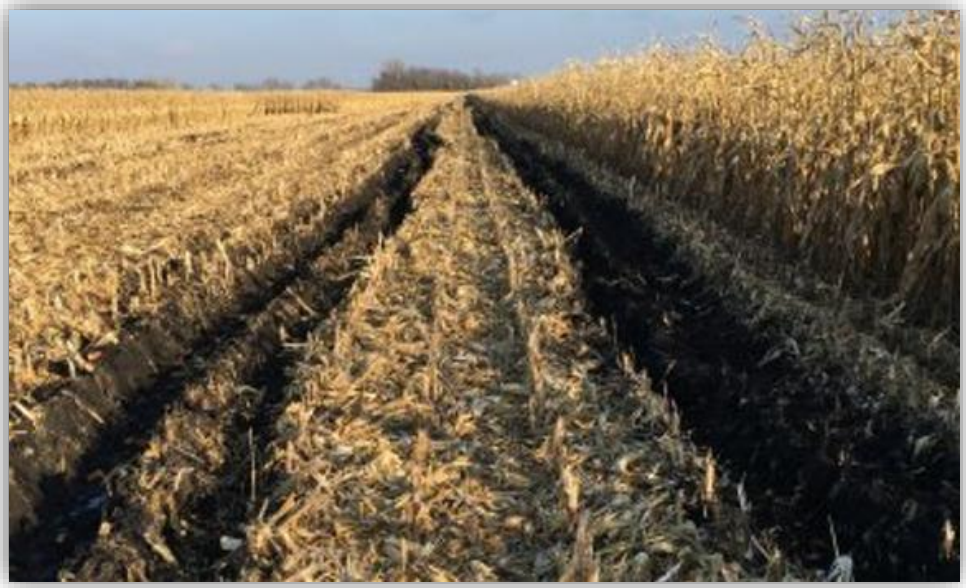

RECORD BOOK CONT.

2019 AGRONOMIC YEAR IN REVIEW

Pollination of corn planted around mid-May was delayed by limited heat units a couple days into late July. Pollination conditions were very favorable and crops showed very little stress during this time. Ear fill took place in an August where GDD's were lacking by 50 units and precipitation was below the average by eight tenths of an inch although soil moisture was not limiting. Growing Degree Days were at a premium in August with some four to seven day stretches where less than 10 GDD's were accumulated per day. The delayed crop also lost about 80 minutes of sunlight from day length shortening and cloudy conditions. These factors showed up in the grain tank as lower test weights in corn and lower soybean yields.

September was critical to many crops reaching physiological maturity. September was about 40 GDD's and almost three inches of rain above normal. With above average monthly temperatures many crops began to catch up on the much-needed heat to fill grain. The moisture would again saturate soils making harvest very difficult for alfalfa, corn silage, soybeans and corn.

The first frost of 28° at the Research and Learning Center was on the night of October 24th, almost 10 days behind the average. This extension to the growing season helped many acres of corn and some acres of soybeans reach physiological maturity even with below normal October temperatures.

Through November 1st in Waupaca precipitation was above the 30-year average by 6.28 inches and 2.73 inches ahead of the annual accumulation with two months of the year left. From March 1st through November 1st accumulated GDD's were at 2,509 with the 30-year average at 2,636. Good conditions during the critical vegetative and pollination timeframes, acceptable yields were seen on crops planted near the desired planting date. Poor weather conditions that delayed planting and grain fill were the biggest yield robbers of 2019. Below normal temperatures this fall have limited grain to drying in the field.

2019 AND BEYOND

2020 MANAGEMENT IMPLICATIONS

This challenging growing season could be more difficult to forget than originally thought. The obvious factor to hang around into 2020 is ruts and compaction from a wet harvest season. Fall field operations have also been delayed by moisture and standing crops. Pushing some of those critical operations like fertilizer applications and tillage to the spring could delay 2020 planting. Crops standing later into the fall and poor conditions for tillage could create a crop residue management issue during planting next season. Crop rotations will be modified because of the decisions made with late planting, prevent plant acres and alfalfa winterkill in 2019. Not being able to plant winter wheat on the planned acres or at all will also shift some rotations. Herbicide applications in 2019 may have been delayed and less effective causing concern for carryover issues and elevated weed pressure in 2020. Poor harvest conditions and standability will cause more volunteer crop presence in the following crop. Acres that were not able to be planted in 2019 will need to be monitored and managed for elevated weed pressure. Be sure to pay close attention to these areas when putting together your 2020 crop plan to keep 2019 in the past.

ALFALFA WINTERKILL OUTLOOK

STOP ME IF YOU'VE HEARD THIS BEFORE…

The fall of 2019 is setting up in almost the exact same way 2018 ended; wet. Above average moisture through the growing and harvest season have soils very saturated. New seeding and young stands were asked to fill the bunks in 2019 putting a lot on stress on young stands. These stands do not have the resources to recover as quickly and become stressed more easily. Soil pore space being filled with water does not allow the alfalfa crown to properly respirate throughout the winter. Excessive moisture also causes the critical 4-inch soil temperature to fluctuate more rapidly causing additional stress. Proper late season cutting management fell victim to empty feed bunks and extended depression of dairy markets are showing up more in lacking soil fertility and pH. All these factors can create havoc on an operation if a plan is not in place to address winterkill issues that may show up again in 2020.

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