Overview of the 2014 wheat season

The number of planted wheat acres for the 2014 season in Michigan slipped to 570,000 acres and the harvested acres plummeted to 485,000 acres according to estimates of the National Statistics Service (NASS) in their Winter Wheat Seeding of January 12, 2014. This translates to a loss of 85,000 acres, the largest disparity between planted and harvested acres in recent decades. The only season that came close to this loss in acres was 1996 where much of the loss was due to head scab. In 2014, the blame lies on the most severe winter-kill that Michigan growers have experienced in decades. Of the acres harvested, the average yield was pegged at 74 bushels per acre, one bushel below 2013's yield.

Crop development

In the fall of 2013, some growers were encouraged to grow wheat due to a weakening corn market while many more found it difficult to get on the ground because of a delay in dry-down of the preceding soybean crop. Perhaps a third of the crop was planted by the end of the first week of October. These timely seedings emerged quickly and evenly. However, wheat planted after this tended to emergence slowly due to cool air and soil temperatures. A few growers elected not to seed all their intended acreage as the calendar neared November.

The 2014 crop faced the coldest temperatures in 30 years resulting in significant winter damage. Wheat was also lost from ice-sheeting as ice and water tended to persist often below a layer of snow. The damage was highly variable between and within fields. Production practices had little effect where winter-kill was caused by ice-sheeting. However, where cold temperature damage occurred, observations revealed the crop tended to benefit from more deeply placed seed, earlier planting, good soil drainage, and sloping landscapes. In a couple of MSU's variety performance testing sites, varietal differences were also noted.

Due to a cool spring, surviving wheat plants were slow to develop with green-up delayed to about mid-April. Cool temperatures persisted through the spring and early summer delaying both first-joint and early-flower stages by 5 to 7 days (most wheat reached early- flowering between June 3 and 13). Abundant rainfall also posed a challenge for some growers as it forced them to forego an herbicide application. This, couple with slow developing and thin wheat stands, provided an opportunity for annual weeds to compete and eventually create harvesting difficulties in some cases.

Winter injury delayed development and often made stand assessment difficult

The continuing weather pattern of cool to moderate temperatures plus adequate rainfall extended the grain-fill period benefiting kernel numbers and weights. The late harvest finally began on July 8 in the southern tier of Michigan but did not reach the more wheat-dense counties for another one to two weeks. By July 27, there was still 28 percent of the crop yet to be harvested (Michigan Crop Weather, July 28, 2014). Due to green, late maturing tillers; cool temperatures, and some weather delays, the last of the harvest was not completed until mid-August.

Diseases

Leaf diseases developed relatively slowly through the vegetative stages, with only modest levels of powdery mildew and Septoria leafspot observed. Leaf rust spores rained down on the state a few days following the on-set of flowering allowing lots of time for the disease to develop on susceptible varieties. Soon after, stagonospora leaf blotch began to develop. By the late milk stage, both diseases could readily be found on flag leaves where fungicides were not used. No cases of stripe rust or stem rust were reported. Viral diseases, including barley yellow dwarf mosaic and wheat streak mosaic, were found but at relatively low levels. Fusarium head blight was seen at low to moderate levels (mostly one head per 10 feet of row or less) thanks to warm and dry conditions at early flowering across much of the state.

Insect pests

Insect pests were not a significant threat to wheat during the 2014 season. Adult armyworm moths were at very low numbers according to trap catches by state-wide volunteers and no significant out-breaks of larvae were reported. Aphid numbers were also relatively low.

Grain quality

In general, the quality of the crop relative to DON and falling numbers levels was good. However, as in most years and often inexplicably, there was an odd field across the state that had high level of head scab and DON. Toward the tail end of the season, where harvest was delayed into August, there were more frequent reports of higher foreign material, lower test weights and higher DON levels.

Grain prices:
The average monthly price received by Michigan farmers from July through December was $ 5.60, one dollar below the same period in 2013 (NASS). The market began to strengthen toward the end of the 2014 calendar year, particularly for soft white wheat as some buyers bid up the premium over soft red wheat by a dollar or more.

Patchy areas of winter damage lead to areas of weeds and late developing tillers

Fall planting

The acreage planted to wheat in Michigan during the fall of 2014 is estimated to be only 500,000 (NASS, January, 2015). This is considerably less than growers intended. The lack of acres was due to a severe delay in soybean maturation and harvest. Many growers continued to plant well into October and even November. According to Ag Across Michigan reports (MI NASS), only approximately 90 percent of the crop was planted by the 1st of November and by the 1st of December, approximately 10 percent of the crop had not yet emerged. Many of these late planted fields did emerge in December.