Weekly Outlook: Smaller Winter Wheat Crop in 2016?

Darrel Good
Department of Agricultural and Consumer Economics
University of Illinois
January 19, 2016

The USDA’s December 2015 survey of Winter Wheat Seedings, released on January 12, revealed that producers seeded only 36.609 million acres of winter wheat last fall. That estimate is 2.852 million acres less than seedings of a year earlier, 28.938 million acres less than the record seedings of 1981, the smallest area seeded since 2010, and the second smallest area seeded since 1913. The reduction in seedings points to a potential decline in winter wheat production in 2016. Production, however, will be determined by the actual level of seedings, the magnitude of harvested acreage, and the U.S. average yield.

Seedings of hard red winter (HRW) wheat for harvest in 2016 are estimated at 26.5 million acres, nine percent less than seeded last year. Fewer acres were seeded in all the major HRW wheat producing states, with record low acreage reported in Nebraska. Estimated seedings declined by 700,000 acres in Kansas and Texas and 400,000 acres in Oklahoma. Seedings of soft red winter wheat (SRW) are estimated at 6.72 million acres, down five percent from seedings of a year ago. Seedings increased in most of the SRW wheat producing states in the Corn Belt, but declined substantially in the Southeast. In contrast, seedings of white winter wheat are estimated at about 3.43 million acres, one percent more than the area seeded last year.

The final estimate of winter wheat seedings often differs from the estimate generated by the December survey. In the 10 years from 2006 through 2015, for example, the final estimate exceeded the estimate released in January five times and was less than the January estimate five times. The largest negative deviation (actual less than the January estimate) in those 10 years was 991,000 acres in 2015, while the largest positive deviation was 1.41 million acres in 2013. The average negative deviation during that 10 year period was about equal to the average positive deviation, suggesting that the December survey provides an unbiased estimate of actual planted acreage. Based on the experience of the past 10 years, it seems very likely that the final estimate of winter wheat seedings for harvest in 2016 will be well below the seedings for 2015.

In addition to deviations between estimated and actual seedings, the relationship between planted and harvested area of winter wheat has also varied from year to year. In recent history, the difference between planted and harvested area of winter wheat has ranged from 5.4 million acres (2010) to 12 million acres (2002). The difference was 7.2 million acres in 2015. Over the past 10 years, harvested acreage as a
percentage of planted acreage has ranged from 75.5 percent (2013) to 85.5 percent (2008) and averaged 80.6 percent. The ratio was 81.7 percent in 2015.

Finally, the U.S. average yield of winter wheat varies considerably. In the previous 10 years, for example, that average has ranged from 41.6 bushels (2006) to 47.3 bushels (2013). The average yield in 2015 was 42.5 bushels per acre, near the low end of recent experience. Odds would seem to favor a higher average yield in 2016. Based on actual average yields for the 30-year period from 1986 through 2015, the trend yield for 2016 is 47 bushels per acre.

Assuming that winter wheat seedings are actually near the January estimate of 36.609 million acres, that 80.6 percent of the planted acreage is harvested (29.507 million acres), and the average yield is near the trend value of 47 bushels per acre, the 2016 crop would total 1.387 billion bushels. Production at that level would be 17 million bushels larger than the 2015 crop. Obviously, actual production could differ substantially from the projected level based on current calculations. The biggest factor will be weather conditions that determine the average yield of the winter wheat crop. There is always uncertainty about weather conditions, but expectations that the strong El Nino event will diminish into the spring of the year increases the level of uncertainty. Based on similar conditions historically, the greater risk for unfavorable weather conditions appears to be for the summer months, after the winter wheat crop is harvested. The next estimate of winter wheat seedings will be available with the USDA’s Prospective Plantings report to be released on March 31.

The Prospective Plantings report will provide important information for spring planted crops as well. The sharp decline in winter wheat seedings has stirred some debate about how planting decisions for spring planted crops will be influenced if crop prices remain low. Some argue that the decline in winter wheat seedings is an indication that producers will idle some crop acreage in 2016 as a result of low prices while others suggest that the reduction in winter wheat acres opens the door for increased acreage of spring planted crops. We will provide further analysis of potential crop acreage in 2016 in a forthcoming farmdoc daily article.

References