Looking back at the 2005 growing season, I think it will be a season that many of us will remember for a long time. Many growers have been frustrated with soybean yields for a while and have talked about a yield plateau in soybean. Now I hope that many growers have started to reconsider if we have reached that yield plateau with soybean. During the past two years, we have harvested the third largest and the largest soybean yield per acre on record in Iowa, and many farmers were able to make equal or more money on soybean than on corn in 2005. Our record soybean yields were estimated by the United States Department of Agriculture to have averaged 53 bushels per acre across the 10.1 million acres of soybean in Iowa.
Record soybean yields in 2005 were estimated by the United States Department of Agriculture to have averaged 53 bushels per acre across the 10.1 million acres of soybean in Iowa. (Rich Pope)

Throughout the season, only a few foliar diseases were observed in our fields, which is very common for Iowa. Bacterial blight and Septoria brown spot were the two most commonly observed. Bean leaf beetles were observed early in the spring but not many fields reached threshold. Soybean aphids, on the other hand, showed up in early June in northeast Iowa. It is estimated that approximately 2.1 million acres were sprayed in Iowa. Yield loss from soybean aphids is assumed to be minimal since fields were scouted intensively, and many were aware of the threshold and pulled the “trigger” at the right time. On the other hand, we again lost yield from soybean cyst nematode (SCN). For years, Greg Tylka, an extension plant pathologist who specializes in plant-parasitic nematodes, has warned us about the yield loss this nematode represents, but we still don’t seem to get the message across. From our high yield studies in 2005, our top eight or nine varieties at each location all had resistance to SCN—that is also the case where SCN was not a significant problem! Yield drag is no longer associated with SCN-resistant varieties. Many farmers learned it the hard way this year because the largest yield loss associated with SCN is observed in dry years. Yield loss from SCN was estimated to be around 50 million bushels in 2004. Who wants to take a guess on 2005?

Last year was a good year for soybean producers. Hopefully, it restored some promise that we can achieve high yields. I think that many will start to realize that it is not impossible to get high soybean yields, but it takes a lot of effort. It is not as easy as plant a “random variety,” spray a herbicide, and then harvest it 3 months later and expect a bumper crop. It takes a lot more. Variety selection is the foundation, and we just can’t afford to compromise on it anymore. After that, fundamental agronomics should be optimized. Finally, scouting frequently and following integrated pest management guidelines will help ensure that no pathogens, weeds, or insects are limiting yield.

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