

Burrus Buzz

Delivering more than just seed

1.17.17

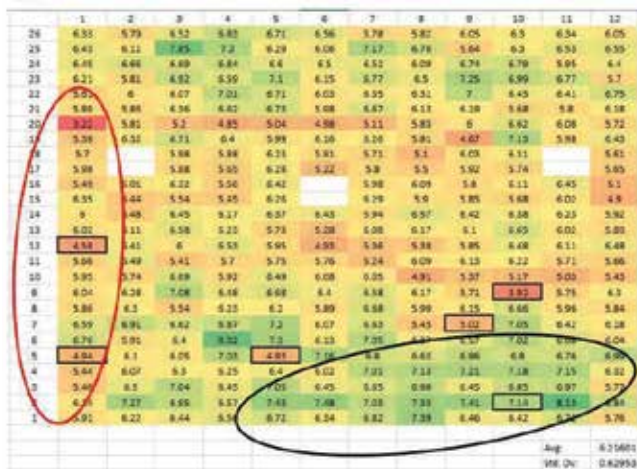
2016 PS SDS (ILeVO®) Soybean Seed Treatment Update

by Stephanie Porter, Burrus Sales Agronomist

For any plant disease to occur, we need a plant disease triangle: pathogen, susceptible host, and favorable environment over time. When evaluating seed treatments, such as PS SDS (PowerShield® with ILeVO®), we must remember to take all these factors into consideration.

Pathogen

ILeVO® at the high rate (0.15 mg ai/seed) is labeled for the control of the pathogen *Fusarium viguliforme*, which causes Sudden Death Syndrome (SDS), as well as the early season control of soybean cyst nematode (SCN). If SCN is present within the field, soybeans can be more at risk for infection of SDS since the nematodes create a point of entry for the SDS pathogen. Most importantly, both SDS and SCN may not be evenly distributed within the field. Therefore, the presence, amount, and distribution of SDS inoculum and SCN can affect the evaluation of PS SDS. There are other diseases that can take yield in a soybean field protected by PS SDS.



Hillview, Illinois
Burrus Soybean Research Plot

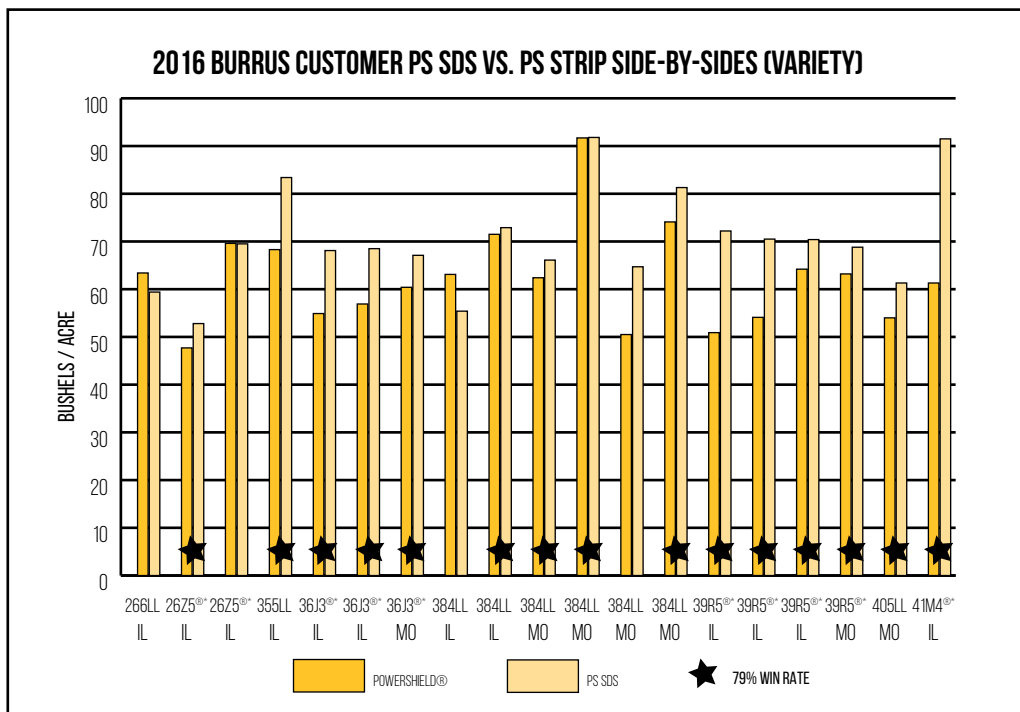
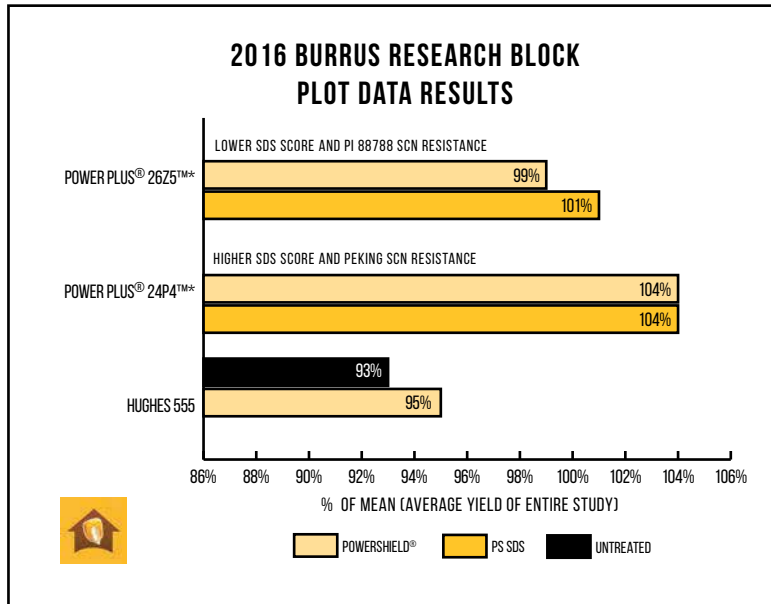
The black oval - little to no SCN pressure

The Red oval - heavy SCN pressure in the field. *This area was very evident in the 3613 border rows on the field in visual observations.*

The rest of the field - moderate SCN pressure.

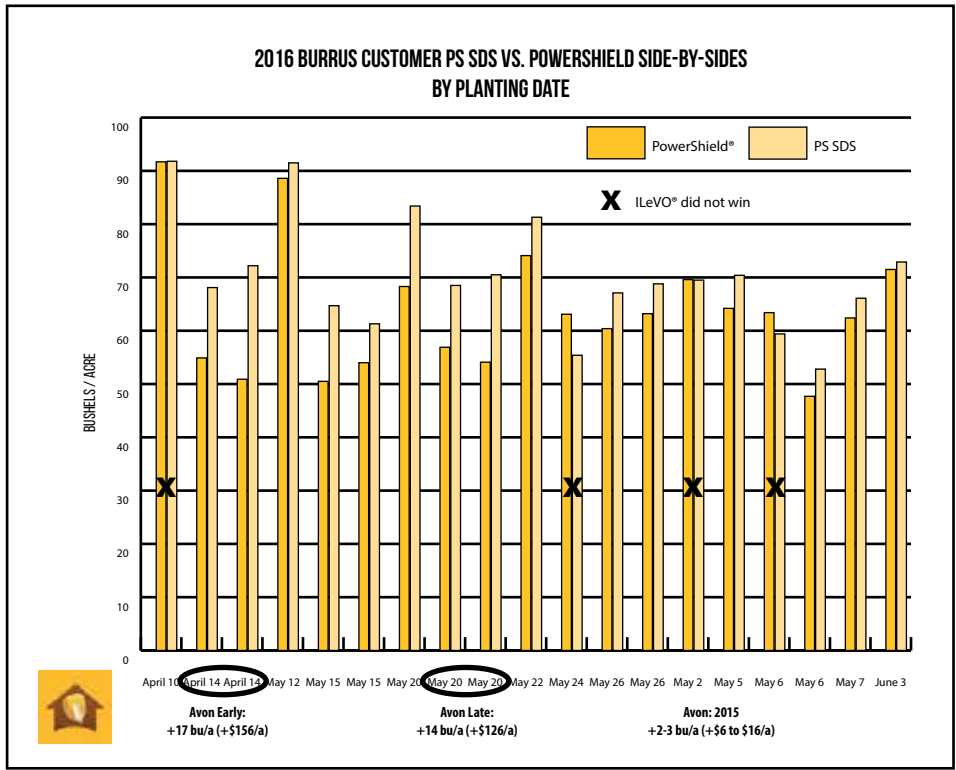
Susceptible Host

Every soybean variety can have a different rating or disease score for SDS, so the lower the disease score, the more susceptible the variety may be. Most soybean varieties consist of the PI 88788 source of resistance for SCN and there can be different levels of PI 88788 resistance within each variety. It has been documented that some populations of SCN may be able to overcome the PI 88788 source of resistance. For more information, read [Why all the Fuss about SCN?](#) If SCN that could overcome the PI 88788 source of resistance is present in your field, a variety with Peking resistance could control those SCN. When evaluating the effectiveness of PS SDS, especially in low to moderate disease pressure, there could be different responses between different soybean varieties. We strongly encourage PS SDS on soybean varieties with lower SDS disease scores or in the event SCN in your field has adapted to the PI 88788 source of resistance.

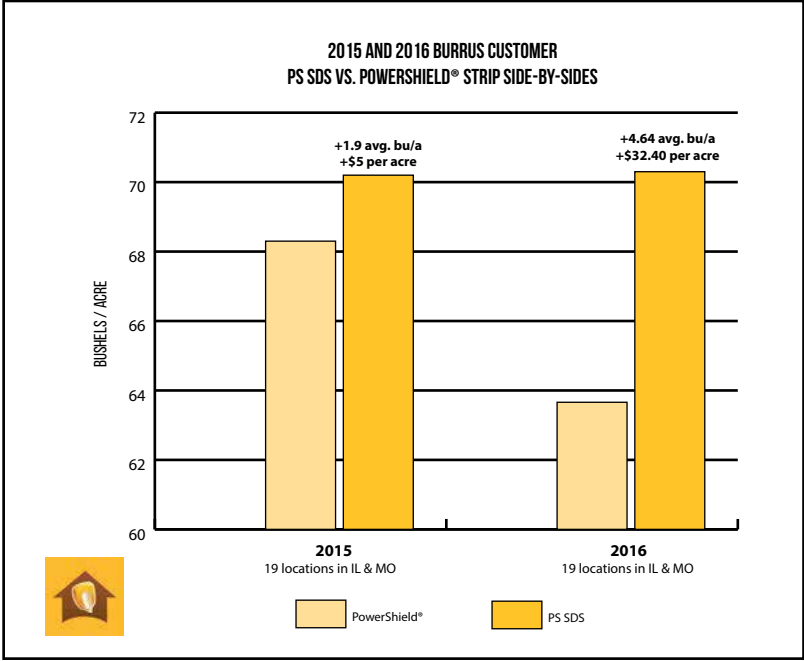


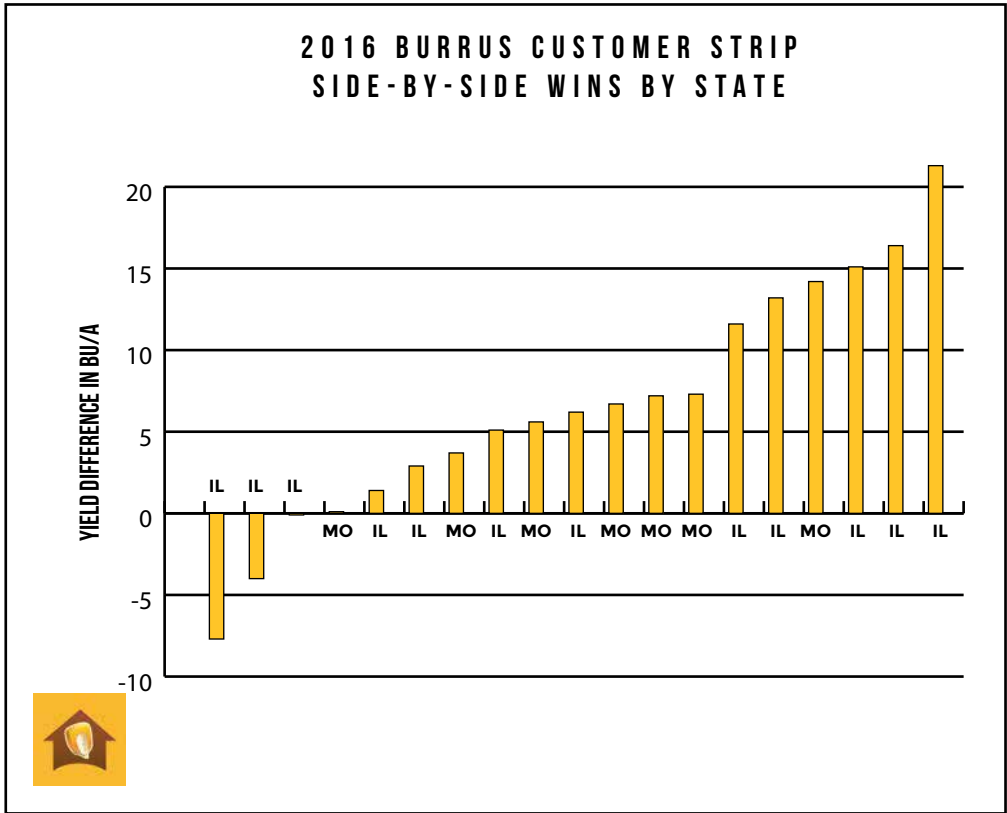
Environment

The most favorable environment for SDS infection is during growing seasons with cool temperatures both at planting and several weeks after planting, as well as plenty of moisture until the end of July/early August. Often, early season temperatures at or below 60° F come with early planting, which is encouraged for higher yield. For more information, check out the [2016 Forecast for SDS in Early Planted Soybeans](#). Other field conditions such as compaction, poor drain-age (lack of tile), heavy soil types, tillage or lack of tillage, or stress can promote SDS in your field. The higher the risk for SDS, the more we encourage utilization of PS SDS soybean treatment. Regardless of the soybean variety or SDS disease score, no soybean is immune from this disease when subjected to heavy SDS pressure.



In 2016, we experienced heavier SDS pressure within the Burrus footprint than in 2015, meaning many more Burrus customers were able to experience the yield advantage, as well as the return on investment, that can come with the use of PS SDS.





During 2011 and 2014, across 190 SDS trials across the U.S., Bayer reported a positive yield response at 89% of these sites. The yield benefit was 2 bu /acre or more 72% of the time and the average yield response was 5.4 bu/acre. Thus far, Burrus research and customer PS SDS trials closely mirror these results throughout the Burrus footprint.

Some factors of the disease triangle can help predict the onset of SDS on your farm, but ultimately, you will never know when Mother Nature will bring favorable conditions for the onset or the severity of SDS. PS SDS is seed treatment insurance that can protect your seed investment in the event of a yield catastrophe caused by heavy SDS pressure or early season SCN.

