



## 2021 Fall Tar Spot FAQs

Question	Answer
1. What is the primary transport mechanism of tar spot that has allowed it to expand across the Corn belt?	Tar spot produces black, raised fruiting structures (ascomata) on the corn plant's surfaces. Each ascocoma produces a large number of spores that can be windblown long distances across the landscape. These fruiting structures can overwinter on corn residue, releasing spores the following season. Infection tends to get worse under irrigation.
2. Do we expect tar spot to continue to move across geographic areas given the environmental needs and disease tracking over the past several years?	It is difficult to predict how tar spot will move over years. We know that it has been present since 2015 and has been most problematic in 2018 and 2021. Tar spot is dependent on growing conditions which will determine its ability to infect corn acres. We expect its impact to vary year to year in different parts of the corn belt depending on local climate conditions.
3. How was tar spot so prevalent and aggressive in 2021, but we had little to no economic yield loss in 2019 and 2020?	We believe the amount of relative humidity and available moisture has a large impact on the ability of tar spot to infest corn. Generally, 2021 had more rainfall and higher humidity during June – September across the central and eastern corn belt.
4. Will Bayer brands have product ratings or expect to have ratings on tar Spot available in the very near future?	Currently a method does not exist, neither by academics nor industry partners, to produce spores which would allow researchers to evenly inoculate research trials to reliably screen hybrid products. As a result, any scores that we have collected have depended on opportunistic infections and have not always been repeatable. We continued to take ratings under the severe disease conditions of 2021, to better understand the impact of the disease on both hybrid and inbred parent base genetics, potentially allowing our breeders to opportunistically screen for and advance products with improved genetic tolerance.
5. Why does it seem like some competitors claim better tolerance than our germplasm?	All commercially available germplasm has the potential for susceptibility to tar spot in our experience. While differences in susceptibility have been present, all genetic providers have some lines that are more tolerant or susceptible than other lines.
6. When do we expect to have tolerance to tar spot in our germplasm?	We are currently working to incorporate genetics from ex-US sources that will increase tolerance to tar spot. We would estimate some of those lines could be available mid – late decade. Other existing sources of tolerance are also being explored that could be available more quickly if proven successful.
7. Do we see differences in fungicide efficacy when managing tar spot?	Yes, we do see many differences in the efficacy of tar spot management with different fungicides. Delaro® and Delaro® Complete fungicide have been shown to be very effective choices

	with multiple modes of action. For more information, please refer to ratings for your state.
8. What are the most beneficial fungicide application timings when managing tar spot?	Most fungicides are targeted between VT and R2 growth stages, with a respray as needed; however, please consult the label of any fungicide that you are considering applying. 2021 research summary data will help determine optimal timings for fungicide sprays in a season with severe disease pressure. In fields with a history of crown or stalk rots, consider an earlier season fungicide spray to protect yield potential of hybrid products, in addition to planning a VT-R2 spray.
9. Do we know if seed treatments have legitimate efficacy on managing tar spot?	We are currently evaluating seed treatments and in-furrow treatments for early plant health protection; but to date we do not have any data supporting seed treatment recommendations for tar spot management.
10. In short, what does the future look like in managing the tar spot disease complex moving forward?	Tar spot appears to be a disease that has established itself in the Corn belt. There also appears to be an interaction with other fungal diseases which may have colonized corn plants prior to a tar spot outbreak. We believe fungicides are the most effective tool to protecting corn yield due to the aggressiveness of this pathogen. Plant breeding plus additional crop protection advances will provide growers even greater options in the future.

**ALWAYS READ AND FOLLOW PESTICIDE LABEL DIRECTIONS. Performance may vary**, from location to location and from year to year, as local growing, soil and weather conditions may vary. Growers should evaluate data from multiple locations and years whenever possible and should consider the impacts of these conditions on the grower's fields.

Not all products are registered in all states and may be subject to use restrictions. The distribution, sale, or use of an unregistered pesticide is a violation of federal and/or state law and is strictly prohibited. Check with your local dealer or representative for the product registration status in your state. Bayer, Bayer Cross, and Delaro® is a registered trademark of Bayer Group. All other trademarks are the property of their respective owners. ©2021 Bayer Group. All rights reserved.