THE OHIO STATE UNIVERSITY
COLLEGE OF FOOD, AGRICULTURAL, AND ENVIRONMENTAL SCIENCES

**Hardin County Extension News Release**

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## Tillage is Useful for Managing Tar Spot and Other Diseases

*Hardin County* – Tillage to remove and speed-up the decomposition of crop residue will help to reduce the risk of tar spot as well as other diseases such as gray leaf spot and northern corn leaf blight that overwinter in infected stubble. This will be particularly important to reduce disease development in 2022, given that in many fields, most of the stubble that remains after harvest came from a 2021 crop with high levels of disease. Unless this stubble is buried or destroyed, several of the fungi that infected the crop this year will likely be available in fairly high numbers to infect next year's crop. And under the right set of weather conditions, infections could occur much earlier next year, leading to greater damage to the crop. Remember, yield loss tends to be greatest when infections occur early (before grain fill is complete), especially if the hybrid is susceptible and the field is not treated with a fungicide in a timely manner.

However, tillage alone will not prevent tar spot or any of the other diseases from developing. That was certainly the case this year where corn fields without residue on the soil surface still had tar spot. Many fields had some level of tar spot, regardless of production practice or cropping system. This was largely because spores of the tar spot fungus are easily carried around by wind, and if your hybrid is susceptible and weather conditions are as favorable next year as they were this year, tar spot will still develop, even if there is no corn stubble in your field or your field is planted after soybean instead of after corn. However, no-till, continuous-corn fields are often at greater risk for disease development than tilled fields under rotation. For instance, if the same susceptible hybrid is planted in two separate fields, one tilled and the other no-tilled, it will likely take fewer hours or days of favorable weather for the disease to develop and damage the crop in the no-till field compared to the tilled field.

So, again, tillage will help, but you should also plant the most resistant hybrid you can find. If the hybrid you planted in 2021 was severely affected by tar spot, you may want to avoid planting it in 2022. However, since no hybrid is 100% resistant to tar spot, you should also be prepared to apply a fungicide if conditions become favorable for disease development.

*Article written by Pierce Paul, OSU Extension-Corn Disease Specialist and edited by Mark Badertscher, OSU Extension-Hardin County.*