

SWEET CORN VARIETY RESISTANCE TO TAR SPOT



Sweet Corn Tar Spot 2023

- All varieties resulted in high incidence of tar spot in late planting
- Photo below by K. Wise



Map of U.S. counties where tar spot was confirmed in 2023. Map source: https://corn.ipmpipe.org/tarspot/





Map created : 11/27/2023

Sweet Corn Tar Spot 2023

- recent U.S. occurrence (~ 6 years)
- potential for significant crop reductions and economic losses (up to 60 bushels/acre reduction)
- reduced photosynthesis during grain fill
- fungal pathogen Phyllachora maydis
- symptoms include small raised black and circular spots on leaves, stalks husks
- disease can vary based on weather, inoculum load, and cultivar

These black and circular spots are known as fungal fruiting structures called stromata, each of which can produce thousands of spores. (upper photo by Ed Zaworski; lower photo by Dan Quinn)







Sweet Corn Tar Spot UW-Hancock ARS Variety Trial – 2023 K21

| 109 | 211 | 305 |
|-----|-----|-----|

















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| Variety | Sponsor |
|------------|--------------|
| Devotion | Seminis |
| Dall | Seminis |
| Messenger | Seminis |
| Shiras | Seminis |
| GSS 2259P | Syngenta |
| GSS 3951 | Syngenta |
| GH 9335 | Syngenta |
| GSS 4628 | Syngenta |
| Azlan | Harris Moran |
| Coachman | Harris Moran |
| HMC 302 | Harris Moran |
| Klondike | Harris Moran |
| Kamet | Harris Moran |
| Stockade | Crookham |
| Forerunner | Crookham |
| Townsend | Crookham |

Planting date June 28, 2023



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Tar Spot Severity

Figure 3. Tar spot severity diagram indicating various levels of tar spot on corn leaves. Yield loss isn't typically detectable in the field until severity reaches 10% or more on the ear leaf or leaves above this leaf.



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Veltyma[®] Fungicide

[†]For disease control and plant health in beans and peas, citrus, corn, fruiting vegetables, grasses, grass grown for seed, non-grass forages, oilseeds, peanut, rapeseed (canola), specified small grains, sorghum, soybean, sugar beet, sugarcane, and tuberous and corm vegetables (including potato)

| See Detailed Use Directions for detailed cro | op listings. |
|--|---|
| Active Ingredients*: | |
| mefentrifluconazole: 2-[4-(4-chlorophenoxy)-2-(t | rifluoromethyl)phenyl]-1- |
| 1H-1,2,4-triazole-1-yl)propan-2-ol | 17.56% |
| oyraclostrobin: (carbamic acid, [2-[[[1-(4-chlorop | henyl)-1H-pyrazol-3- |
| /]oxy]methyl]phenyl]methoxy-, methyl ester) | 17.56% |
| Other Ingredients: | 64.889 |
| Fotal: | |
| Veltyma [™] fungicide contains 1.67 lbs mefentrifluconaze | ble and 1.67 lbs pyraclostrobin per gallon. |
| EPA Beg. No. 7969-409 | EPA Est. No. |

EPA Reg. No. 7969-409

KEEP OUT OF REACH OF CHILDREN CAUTION/PRECAUCION

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

See full label for complete First Aid, Precautionary Statements, Directions For Use. Conditions of Sale and Warranty, and state-specific crop and/or use site restrictions.

In case of an emergency endangering life or property involving this product. call day or night 1-800-832-HELP (4357).

Net Contents:

BASE Corporation



Revytek Fungicide

[†]For disease control and plant health in beans and peas, corn, cotton, grasses, grass grown for seed, non-grass forages, oilseeds, peanut, rapeseed (canola), soybean, sugar beet, and sugarcane *See Detailed Use Directions for detailed crop listings

Active Ingradients*

| Active ingredients . | |
|---|-----------|
| mefentrifluconazole: 2-[4-(4-chlorophenoxy)-2-(trifluoromethyl)phenyl]-1- | |
| (1H-1,2,4-triazole-1-yl)propan-2-ol | 1% |
| pyraclostrobin: (carbamic acid, [2-[[[1-(4-chlorophenyl)- | |
| 1H-pyrazol-3-yl]oxy]methyl]phenyl]methoxy-, methyl ester) 15.49 | 9% |
| fluxapyroxad: 1H-Pyrazole-4-carboxamide, 3-(difluoromethyl)- | |
| 1-methyl-N-(3',4',5'-trifluoro[1,1'-biphenyl]-2-yl) 7.74 | 1% |
| Other Ingredients: | <u>3%</u> |
| Total: |)% |



Acknowledgements

- Midwest Food Products Association
- Agrichemical industry partners
- Seed partners
- Wisconsin Potato & Vegetable Growers Association

University of Wisconsin Vegetable Disease Website (newsletter access) <u>https://vegpath.plantpath.wisc.edu/</u>



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