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Corn Crown Rot

While we tend to see it only sporadically, crown rot has long been a corn production challenge. That's partly because we may not notice it right away and partly because the reason it shows up can be difficult to pinpoint, even as losses can be real.

Most commonly associated with one of naturally occurring *Fusarium* fungi found in soil and crop residue (*Rhizoctonia* and *Pythium* are potential causal agents as well), crown rot is often associated with early season stressors. Those stressors have been difficult to pinpoint, but have included cool and/or wet conditions early in the season or in combination with other issue like wet soils, compaction, etc... Even so, the disease has been seen under various conditions, and it is still unknown what predisposes a plant to infection or subsequent disease development.

Often going unnoticed until later in the season, we occasionally see crown rot symptoms in the early vegetative stages: stunted, wilted plants that may exhibit yellowed lower leaves. When dug up, plants may show a brown to black discoloration of roots and if split, crown tissue may be discolored or dark brown. The more common end of season symptoms include early drydown or plant death with 'ghost plants' sometimes described as grayish-green and surrounded by healthy plants. Once plants have dried down, symptoms include pith discoloration to the first node or roots or roots/brace roots with a pink/reddish color.

Losses are difficult to quantify due to our inability to distinguish crown rot losses from other issues. Work continues to determine whether the *Fusarium* stalk rot we see later in the season is related and other issues can show similar symptomology – if we see symptoms at all. Seed treatments have not yet shown reductions in problems versus non-treated controls and in some cases may have outlived their typical 'coverage life' when potential infections are starting. Hybrids vary in resistance with ratings often mixed. Early vegetative-stage foliar fungicide research has not thus far shown consistently reduced crown rot incidence/severity compared to non-treated controls.

Whether we see crown rot this season is anyone's guess, but in previous years, wet springs followed by extended dry periods that added additional stress to injured plants was when issues appeared. Hopefully it won't be an issue at all – but it *is* one to keep an eye on when scouting this year. For more on corn crown rot (including pictures of symptoms), visit: <https://cropprotectionnetwork.org/publications/frequently-asked-questions-about-crown-rot-in-corn> .