

Stalk Rot

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Stalk rot seems to show up every year somewhere. The pictures you see are some of the more common stalk rots that may be found out in a corn field. Several fungi and bacteria can cause stalk rots both earlier and/or later in the season. Generally though, most stalk rots will show up later in the season.

Disease development is generally initiated by an early environment that favors kernel set followed by a late environment that is stressful such as (a) lack of moisture (b) nutrient imbalance or deficiency (c) excessive cloudiness (d) nematode, rootworm or other insect damage, (e) hail or other mechanical damage to the leaves, stalks or roots (f) loss of leaf tissue (g) excessive plant population (h) extended periods of very wet or dry periods (i) abrupt weather changes especially several weeks after silking. Other factors associated with stalk rot development include (j) high yields, (k) high N levels associated with low potassium levels, (l) high levels of decaying plant residue and (m) other plant diseases and stresses.

Balanced soil fertility is very important especially when it comes to potassium levels. Research has also shown the importance of adequate nitrogen during the entire season and how it can help reduce the severity of stalk rot. Take this into consideration, especially if nitrogen leaching or denitrification has occurred during the growing/grain production season. Most importantly, do not guess on the fertility needs of your field. Fertilizer application rates should be based on the results of soil tests. Soil tests may save you

money in the long run via establishing the fertility needs and limiting excess fertilizer costs and helping to promote better plant health if the correct nutrient rate/balance is provided.

Hybrids vary in many ways and a producer needs to better understand the hybrids he has chosen to grow. Population in some cases may be the major culprit for a stalk rot problem with a hybrid. Some hybrids when planted at excessive rates can result in spindly stalks with reduced standability that may promote stalk rot which in turn probably means yield loss.

Stalk rots cannot be completely controlled but damage can be



Gibberella rot



Charcoal rot



Anthracnose rot



Fusarium rot



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reduced. Here are several food for thought items to help reduce stalk rot influenced harvest loss. (a) Understand the hybrid you are growing and the capabilities it has, (b) follow a balanced fertility program, (c) control insects (d) plant at the proper rate (e) if you irrigate, avoid putting stress on the plants (f) foliar disease prevention can help with stalk rot potential associated with fungus and (g) good weed control.

Check your fields to make sure that stalk rot will not be a problem. Hybrids that have a thicker rind or other complimenting characteristics may not appear to have stalk rot but they may. Squeeze stalks above ground level to make sure they are not hollow or diseased. If some are hollow, this might be a field which you may want to consider harvesting sooner rather than later.



Diplodia rot