## Seven Wonders of the Corn Yield World

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Given key prerequisites
Leaf Greening from Strobilurin Fungicides

Greener leaves 50 days after VT application
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Given key prerequisites
Plant Response to Growth Regulators

Relative growth vs. PGR level/sensitivity.

- **Optimum level**
- **Too little PGR**
- **Too much PGR**
A new ear abnormality from an improper PGR application
The Ohio State and Abnormal Ears

Abnormal Corn Ears

Ear Pinching (Borer Battle Ears)

Symptoms: Long or narrow ears or ears that are brown or yellow and tightly wound around the stem. Ears can be covered in a net-like pattern of corn silks.

Causal Agents: Borer, worm, or larva feeding on the ear or stem.

Blunt Ear Syndrome

Symptoms: Ears that are blunt, wide, and lack tassel ears. Ears may be brown or yellow and tightly wound around the stem.

Causal Agents: Physical damage to the ear or stem during the growing season.

Multiple Ear Syndrome

Symptoms: Ears that are branched or have multiple ears. Ears may be brown or yellow and tightly wound around the stem.

Causal Agents: Physiological or environmental stresses that cause the ear to branch or produce multiple ears.

Drought Damaged Ears

Symptoms: Ears that are dry, withered, or dead. Ears may be brown or yellow and tightly wound around the stem.

Causal Agents: Extensive periods of drought or inadequate water availability during the growing season.

Tassel Ears

Symptoms: Ears that are covered in tassels. Ears may be brown or yellow and tightly wound around the stem.

Causal Agents: Tassels growing on or near the ear.

Diplodia Ear Rot

Symptoms: Ears that are brown or yellow and tightly wound around the stem. Ears may be covered in Diplodia rot.

Causal Agents: Diplodia ear rot fungus.

Poor Pollination at Ear Tip

Symptoms: Ears that are brown or yellow and tightly wound around the stem. Ears may be covered in a thin layer of pollen at the ear tip.

Causal Agents: Insufficient or inadequate pollination during the growing season.

Tip Dieback

Symptoms: Ears that are brown or yellow and tightly wound around the stem. Ears may be covered in a thin layer of dead tissue at the tip.

Causal Agents: Physiological stress or environmental factors that cause dieback at the ear tip.

Zipper Ears

Symptoms: Ears that are tightly wound around the stem, with the kernels not fully formed. Ears may be brown or yellow and tightly wound around the stem.

Causal Agents: Physiological stress or environmental factors that cause the kernels to be small or not fully formed.

Kernel Red Streak

Symptoms: Ears that are brown or yellow and tightly wound around the stem. Ears may be covered in a thin layer of red streaks on the kernels.

Causal Agents: Physiological stress or environmental factors that cause red streaks to form on the kernels.

Western Bean Cutworm Ear Injury

Symptoms: Ears that are brown or yellow and tightly wound around the stem. Ears may be covered in cutworm damage.

Causal Agents: Western bean cutworm feeding on the ear.

Bird Damage

Symptoms: Ears that are brown or yellow and tightly wound around the stem. Ears may be covered in bird damage.

Causal Agents: Birds feeding on or damaging the ear.

More information on abnormal corn ears is available online at http://agcrops.osu.edu/corn/EARABNORMALITIES.php
Name that Ear Abnormality

“Circum-Ovulated Ear”