Beating Corn Diseases in 2011

Wet conditions and the late planting can add up to trouble. Be prepared.

Late in 2010, farmers in the heart of the Midwest got a surprise. Late-season disease took out the top potential yield in some fields, surprising many. The key is to scout early and plan to treat in a timely manner.

Key diseases that can strike corn include northern corn leaf blight, gray leaf spot, anthracnose and Goss's wilt. Early identification of these diseases can lead to effective treatment and protection of crop yield.

Most farmers know gray leaf spot when they see it. Those familiar lesions that can streak a plant's leaf are pretty easy to spot. As the economics of corn have changed, continuous corn has become more popular, which can increase the risk of this disease striking down yields. However, it is a disease that can be prevented, and treated, with fungicides.

Goss's wilt is a bigger challenge. This disease has been more of a western Corn Belt problem, but it moved east in 2010 into a wide range of Iowa as well. Alison Robertson, an Iowa State University Extension plant pathologist, notes that in the past two years (leading into the 2010 harvest) the disease has been more of a problem in northwest and west-central Iowa, "but in 2010 it was widespread in these areas, and was in northeast Iowa and showed up in east-central Iowa, too."

In Robertson's opinion, Goss's wilt is here to stay (in Iowa) with the rise of continuous corn, and the fact that many high-yielding hybrids are currently susceptible to the disease. Weather plays a role in how severe this bacterial disease is each year. "This is going to be a difficult disease to manage. Hybrid resistance will be the key," Robertson says. As a bacterial disease, Goss's wilt cannot be treated with a fungicide. If present in a field, the best approach is to rotate to other crops and seek resistant genetics.

Northern corn leaf blight resembles Goss's wilt, causing death of the leaves at the top of the plant. Robertson notes this disease was more widespread in 2010, and many hybrids are susceptible as well. However, northern corn leaf blight can be treated with fungicides.

Anthracnose, another corn disease, also causes plant die-back from the top, and can pop up given the right weather conditions. It, too, can be treated with fungicides.

If you're in a continuous corn situation, understanding the disease population that could strike your area will give you a leg up in scouting. Gray leaf spot, for example, overwinters on corn residues and could be present each year.

Timing can be an issue. Robertson found that northern corn leaf blight showed up late in 2010 at about R3, which is long past the usual application timing for fungicides. "That's why we advocate scouting, getting out in your fields -- and if you see the disease, then consider whether you are going to try a foliar fungicide," Robertson says. "Some growers went into their fields on July Fourth weekend [in 2010] and there was no disease, but the diseases developed later. Timely scouting and application are a must if you are spraying a fungicide."

With the 2011 crop delayed, combined with those wet conditions, ramping up scouting for this year is a solid management option.