Dry beans are affected by three bacterial diseases (listed in order of importance):
1) Halo blight (\textit{Pseudomonas syringae pv. phaseolicola});
2) Brown spot (\textit{Pseudomonas syringae pv. syringae}); and
3) Common Bacterial blight (\textit{Xanthomonas axonopodis pv. phaseoli})

Symptoms can be found on foliage and pods.

The most prevalent disease on dry beans this year was brown spot.

\textbf{Halo Blight}

Halo blight symptoms begin as water-soaked lesions on the underside of leaves. On the upper side of leaves, reddish-brown lesions with yellow halos are visible (Fig. A).

\textbf{Brown Spot}

Symptoms of brown spot on leaves also begin as water-soaked lesions which rapidly develop into necrotic (brown) spots with a narrow margin. Spots are typically 1/8” in diameter (Fig. B).

\textbf{Common Bacterial Blight}

Symptoms are light brown in color and irregularly shaped. They are surrounded by a yellow margin and may spread to cover large areas of the leaves (Fig C).
Factors affecting disease
All three diseases are exacerbated by high humidity and moderate temperatures. Damage from hail and wind may also facilitate entry of the bacteria into leaves and pods and exacerbate disease.

Brown Spot. The bacteria causing brown spot are found in soil, on weeds and on the surface of bean (and other) plants. The bacteria can also survive in seed but the contribution of inoculum to the disease is insignificant.

Halo and Common Blight. Infested seed is a common source of inoculum for these diseases. Halo and common blight were not commonly observed in dry bean fields this year.

Management
Losses from bacterial diseases may be reduced by:

Pre-planting planning:
- Four years between bean crops are preferred;
- Row direction (E-W) and spacing (36”) to promote wind flow;
- Optimize weed management to also promote wind flow; and
- Use high-quality certified seed.

In-crop management:
- Scout regularly to identify early signs of disease;
- Apply copper (e.g. Champ® Formula 2 at 2/3 to 2 pt/A) immediately after the first appearance of disease; and
- Ensure good spray coverage.

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September 2014