Bean Common Mosaic Virus (BCMV)

Host Range and Symptoms

BCMV host range is limited but naturally infected plants include common bean, Phaseolus vulgaris L. var. aborigineus, Rhynchosis minima (L.) DC, and some wild tropical Phaseolus spp. Symptoms include light and dark green mosaic patterns on trifoliate leaves (Figure 1).

Other symptoms include: puckering, blistering, distortion, downward curling and rolling (Figure 2), and a mild or severe green-on-green mosaic mottle (Figure 3). Pinpoint, yellow dots or necrotic local lesions may often result in plant growth reduction. Plants infected at a young age may be stunted and distorted.

Causal Agent

BCMV belongs to the potyvirus group and is serologically related to them, especially to Bean Yellow mosaic Virus (BYMV).

Inoculum Source and conditions

This virus is spread between production areas and between seasons, especially in infected seed. The most important vectors are aphids, but also pollen, and mechanical transmission.

Management/Control

Control of vectors is the main form of virus control. Use of virus-free seed will also reduce incidence, however, the best method of control is by use of certified and/or resistant varieties or cultivars having the \( I \) gene or other Bean Common Mosaic Virus resistance genes.