

Avoiding Bean Pod Mottle Virus

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Bean pod mottle virus can cause a wide range of symptoms in beans from the bronzing, puckering, and green-to-yellow mottling to green stems and reduced pod set. Seed size and number can also be affected by this disease which is more prevalent in fields that are infected in the early stages of growth. Foliar symptoms are most prevalent early in the season and then somewhat disappear as the season progresses.

BPMV can sometimes appear due to infected seed, but the main method by which BPMV is moved into a field occurs as a result of insect feeding. Common soybean insects, such as the grape colaspis, certain species of blister beetles, and some exotic corn rootworm beetles can transport BPMV, but the main "viral vehicle" is the bean leaf beetle. As the beetles feed, they ingest the virus from an infected host, such as one of the many legume weeds, and then accidentally regurgitate it as they feed on the soybean plant.

What can be done to avoid problems with BPMV? Disease-free seed is one option. However, determining which seed source is or is not disease free can be difficult and may make this a mute recommendation. Managing host insects, such as the bean leaf beetle, early may provide another means of control. However, eliminating vectors of a disease proves difficult because other hosts can move into an area after an insecticide application. Perhaps a more reliable method of managing the pest would be to practice good weed management. Since weeds can serve as hosts for BPMV, mowing roadsides, eliminating weeds from the soybean field, and

eliminating weeds from neighboring soybean fields may decrease the frequency of BPMV. Δ

