It may not be what it appears

John H. Hill
Iowa State University, johnhill@iastate.edu

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Abstract
The last few years we have been plagued by soybean seed quality problems exemplified by hilum bleeding or mottled seed. Much of it has been attributed to bean pod mottle virus primarily transmitted by the bean leaf beetle. This year populations of the bean leaf beetle have been lower, and the incidence of mottled seed throughout the state might be expected to be lower.

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During our hot dry summer, any virus symptoms that occur in plants are often masked. During the late summer, as temperatures cool, symptoms can become more evident once again. But this time, the symptoms observed were also associated with high aphid populations, and are caused by soybean mosaic virus, which is transmitted by the aphid.

Although the viruses are unrelated and very different, they can cause the same symptoms in soybeans, and the mottled seed produced by these infected plants looks the same for the two viruses. How to tell the difference? You can't base your diagnosis upon visual symptoms. The only way is through a laboratory test. Both viruses are seed transmitted, and when they occur together they act synergistically. Further, both viruses can be transmitted through seed (bean pod mottle < 0.1% and soybean mosaic at 0 - 5%). But the insects that transmit them are very different and the tolerance of soybean varieties of the two viruses may differ. So, be careful when trying to diagnose the cause of any abnormality seemingly associated with virus-like symptoms. It might not be what you think it is and knowing what it is could be important for future management decisions!

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