

Soybean Green Stem Disorder May Result in Poor Pod Set

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Last harvest, a number of soybean growers noted that some varieties did not seem to mature uniformly. Soybean green stem is a disorder that causes the stems to remain immature after pods and seeds have fully ripened. Normally, you would expect stems to ma-

ture and dry down with seeds and pods.

Most researchers believe that green stem is variety specific and has not been shown to affect soybean yields. There is some controversy, but many operators would say that green stem significantly increases harvesting difficulty. The excess stem moisture slows the harvest process, reduces fuel efficiency, and may create potential sales and storage problems.

Soybean plants digest their leaves, petioles and stems to complete the pod filling process and add a few more bushels per acre. If the digestion of plant parts is not needed to complete pod fill, then these plant parts remain green as was observed this fall. Some viruses can have a similar effect, but these green stem plants do not appear to have a virus.

Green stem disorder was first reported in Kansas in 1974. The main diagnostic feature of green stem is mature pods and seeds on immature stems. A few varieties have maintained green stems, and sometimes leaves, for up to three weeks after other varieties of the same maturity dropped their leaves, and the stems dried in a normal manner.

Some researchers have speculated that poor pod set may be involved in green stem disorder. Until the cause of green stem can be determined, no specific management recommendations are available. Presently, selecting varieties that are insensitive to green stem is the only method to limit the problem. The University of Illinois Variety Testing Program and the data presented in the Variety Information Program for Soybeans provide additional information. See the VIPS website at http://web.aces.uiuc.edu/VIPS/v4/vpHome/vipshome_new.cfm?b=y

A more complete discussion of green stem disorder is posted at the National Soybean Research Laboratory website, http://www.nsr1.uiuc.edu/news/nsr1_pubs/Green%20stem%20disorder%20factsheet%20v3.pdf.
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