



Understanding green stem in soybeans

August 29, 2025



Example of green stem on fully developed soybean plants.



Green stem is a term that describes abnormal patterns of maturation in soybean, where the seeds and pods mature fully even though the stems stay green. A new [diagnostic guide](#) describes the symptoms of green stem, field conditions that may

increase green stem risk, and management options for fields with widespread green stem occurrence.

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Self-study CEU quiz

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1. Which of the following best describes “green stem” in soybeans?

- a. A fungal disease that prevents pods from maturing.
- b. A viral disease where pods mature earlier than normal and stems turn from brown to green.
- c. A delayed or abnormal senescence pattern affecting stems but not pods.
- d. A nutrient deficiency symptom caused by low potassium.

2. In the United States, green stem is generally more prevalent in

- a. northern soybean-growing states.
- b. southern soybean-growing states.
- c. only irrigated soybean systems.
- d. areas with sandy soils.

3. According to survey data cited in the article, approximately what percentage of farmers and crop advisers reported observing delayed maturation and/or green stem symptoms in 2014–2015?

- a. 25%.
- b. 50%.
- c. Over 77%.
- d. Over 90%.

4. Which growth stage is considered most critical for environmental stress to increase green stem severity?

- a. R3 (beginning pod).
- b. R4 (full pod).
- c. R5 (beginning seed fill).
- d. R8 (full maturity).

5. Which insect pest has been associated with green stem through feeding damage rather than viral transmission?

- a. *Cerotoma trifurcata* (bean leaf beetle).
- b. *Nezara viridula* (southern green stink bug).
- c. *Orosius orientalis* (common brown leafhopper).
- d. *Riptortus pedestris* (bean bug).

6. Which of the following is NOT listed as a potential management option for green stem?

- a. Reducing combine speed during harvest.
- b. Waiting for a hard frost.
- c. Applying nitrogen fertilizer at R6–R7 to accelerate senescence.
- d. Applying desiccants prior to harvest.

7. Green stem typically causes significant yield loss in soybeans.

- a. True.

b. False.

8. Which factor in soybean-breeding programs has been associated with higher green stem sensitivity?

- a. Low chlorophyll concentration in stems.
- b. High vegetative storage protein accumulation.
- c. Increased pod-shattering tendency.
- d. High seed protein content.

9. Fungicide-induced “stay green” effects are the same as green stem.

- a. True.
- b. False.

10. Which of the following seed quality impacts has been linked to green stem?

- a. Higher oil content and smaller seed size.
- b. Increased protein content and improved germination.
- c. Larger seed size, lower fat ratio, and reduced germination.
- d. No measurable effect on seed composition.

prohibited.