

Are Your Soybeans Ready For Frost?

SPRINGFIELD, MO.

Many soybean fields in southwest Missouri were planted later than normal this year due to above average rainfall during the planting season. The last safe date to plant soybeans is determined by the amount of remaining growing season at a location.

“At least 90 frost-free days are needed for double-crop soybeans to reach physiological maturity,” said Jay Chism, agronomy specialist with University of Missouri Extension in Barton County.

Physiological maturity coincides with maximum dry weight accumulations in the seeds and occurs when seed moisture is still 50 to 60 percent.

“Studies show that yellow pods sprinkled with brown are the best clue of physiological maturity,” said Chism. “After the beans have reached physiological maturity, moderate freezing does not affect yield or quality.”

Research at Wisconsin has shown that soybeans had reduced yields when frost occurred

at or before R6 (full seed). The greatest yield losses occurred when it frosted at R5 (beginning seed). The number of beans per plant and reduced bean size all contribute to yield loss.

“A frost between R6 and R7 (beginning maturity) may or may not affect yield, depending on the temperature and duration of the freeze,” said Duane Berglund with North Dakota State University Extension.

Air temperatures of 29 degrees are necessary to completely kill soybean plants.

“If a frost severe enough to kill leaves does occur when pods are still light green or yellow, delay harvest until the pods are mature in color,” said Chism.

At times frost damage may be severe enough that the majority of the grain is lost.

“Just be sure to check with your insurance agent before destroying the crop or harvesting for hay,” said Chism.

For more information contact Jay Chism at (417) 682-3579. Δ