



HARVEST AIDS FOR SOYBEANS FACT SHEET

This is one in a series of fact sheets from the Mississippi Soybean Promotion Board and the soybean checkoff. Each sheet presents a brief overview of a topic important to Mississippi soybean production. More information on each topic can be accessed through the link at the bottom of the sheet. To see other fact sheets, click [here](#).

Harvest aids/desiccants are used to remedy problems such as the presence of green plant tissue (weeds, soybean leaves and stems) that may interfere with efficient harvest of soybeans once pods are mature.

A preharvest desiccant will be needed to 1) hasten plant dry-down if an event that reduced fruit load or caused damage to developing soybean seeds occurred prior to maturity, and 2) desiccate weeds where their densities at harvest are sufficient to increase moisture content of harvested soybean seed or will result in increased foreign matter in the harvested seed.

A desiccant will not dry down immature soybean seed; rather, it will dry the pods, making them easier to harvest.

A desiccant such as Gramoxone will do an excellent job of killing green vegetation, but will not remove excess moisture from soybean seed. The addition of sodium chlorate to a desiccant will aid in removing excess moisture from seed, as well as from green soybean and weed tissue.

Using preharvest desiccants will not result in a soybean yield increase. The advantage from their use comes from increased harvest efficiency and better quality of harvested soybean seed which should reduce potential dockage at the elevator.

Apply a desiccant to soybeans when seed moisture content is 40% or lower to prevent yield loss from an earlier application. This roughly coincides with soybean stage R6.5 to R7.

Waiting too long (closer to soybean maturity) to apply a desiccant may not allow enough time between its application and harvest readiness to meet the

preharvest interval (PHI) stipulated on the label.

It is important to monitor pod/seed development rather than leaf appearance or leaf drop as an indicator of the proper time to apply a desiccant.

MSPB-funded research conducted in Mississippi showed that Gramoxone applied alone and with no adjuvant is the most cost-efficient and effective defoliation product for soybeans.

If Gramoxone is applied at the earliest allowed time (R6.5), then its 15-day PHI will end soon after R8 or maturity and no yield loss will occur from delayed harvest. Delays in harvest that result from too-late applications may result in either yield loss or reduced seed quality, or both, if weather conditions that promote damage to mature soybean seed occur before harvest can occur.

Results from research conducted at Stoneville, Miss. (MSPB Project No. 32-2019/2020) using paraquat as a harvest aid provide the following. If paraquat is applied to soybeans as a harvest aid before full seed maturity (R8), some yield loss is likely to occur, especially if applied before R7. Thus, producers who decide that a paraquat application is necessary to expedite maturity and/or increase harvest efficiency should wait as long as possible in relation to seed maturity to make the application. Since R8 occurred 13-15 days after the R7 paraquat application in this study, and the pre-harvest interval for paraquat is 15 days, it is likely that stage R7 is the latest time for paraquat to be applied to soybeans as a pre-harvest desiccant. This is a decision that individual producers will have to make based on their harvest capacity and anticipated weather conditions during harvest season. Remember, stage R8 does not equate to harvest maturity—i.e., harvest maturity will most likely occur 5-10 days later than stage R8 following suitable drying weather that has matured all pods.

Click [here](#) for a detailed discussion of this topic.

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