

Column Name- The Heartland Minute

By: Lindsay Shorter

K-State Research and Extension Greenwood County

Agriculture Extension Agent

*“Controlling Marestalk in Soybeans”*

Controlling marestalk in soybeans continues to be a big challenge for Kansas no-till producers. Because soybeans are generally planted later in the season, and marestalk generally germinates in the fall or early spring, application timing and weed size are critical factors for successful control.

Mother Nature is pretty good at controlling some marestalk throughout the winter. Research has shown that up to 80% of marestalk can die over the winter as a result of cold temperatures and/or lack of adequate moisture. In addition, a well-established cover crop in the fall can further reduce marestalk establishment and survival and often is quite effective for marestalk control. However, the marestalk that do survive are often robust and can be difficult to control with herbicides, especially later in the spring. Fortunately, there are still a few herbicide options that can help manage overwintering and new emerging marestalk in the spring. Dallas Peterson, K-State Research and Extension’s weed management specialist has compiled different options that producers have when controlling marestalk.

**Early Spring Options-** In the early spring, using a growth regulator herbicide such as 2,4-D and/or dicamba is an inexpensive and effective option to control rosette marestalk. Dicamba has provided better marestalk control than 2,4-D and will also provide some residual control, especially at higher use rates. A combination of the two will give broader spectrum weed control than either one alone. Recent observations in Kansas suggests marestalk will bolt in April throughout most of the state, so timing control before the end of March is recommended. Application of dicamba and 2,4-D in March also generally allows adequate time ahead of planting soybeans to meet required pre-plant intervals.

Using herbicides with longer residual helps control weeds that germinate between treatment and soybean planting. Products that include Canopy EX, Autumn Super, Classic, FirstRate, Sharpen, metribuzin, or Valor can help provide residual control against several broadleaf species, including marestalk. However, it is very important to consult and follow the herbicide label guidelines for the required pre-plant intervals prior to planting soybeans.

**Pre-Plant Options-** As soybean planting nears, existing marestalk plants can become difficult to control because plants will have bolted and be considerably larger. Herbicides to apply as a burndown prior to planting include tank mixes of glyphosate with FirstRate, Classic, Sharpen, Optill, or 2,4-D. Be very careful to follow label directions when using 2,4-D prior to soybean planting. The plant-back restriction ahead of soybean can range from 7-30 days depending on rate and formulation. Sharpen generally provides good marestalk control and can be applied any time before soybean emergence. However, it is still most effective if applied before marestalk starts to bolt, in a tank-mix with other herbicides, when used with methylated seed oil, and at spray volumes of 15 gallons per acre or more. Elevore is a new herbicide that has provided similar marestalk control to dicamba, but needs to be applied at least 14 days prior to planting.

Pre-plant restrictions for dicamba products such as Clarity, Banvel, and others range from 14 to 30 days depending on product, application rate, rainfall amounts, and geography. However, with the introduction of Roundup Ready 2 Xtend soybeans, the new dicamba products Xtendimax, FeXapan, and Engenia have no pre-plant interval restrictions applied ahead of Xtend soybeans and should be some of the more effective treatments for marestail control in that scenario. Xtendimax, FeXapan, and Engenia are still most effective on marestail prior to bolting.

One additional herbicide to consider as a rescue burndown application to control bolting marestail prior to soybean planting is glufosinate (Liberty and others). Although, it would be better to control marestail at an earlier stage of growth, glufosinate has been one of the most effective herbicides to control bolting marestail. Glufosinate also has broad spectrum non-selective activity on other broadleaf and grass species if treated at a young growth stage. Glufosinate is primarily a contact herbicide, so a spray volume of 15 gallons per acre or greater generally provides the most consistent weed control. Glufosinate tends to work best under higher humidity and warm, sunny conditions at application.

**Post-emergence options-** Controlling marestail in the growing soybean crop can be the biggest challenge for producers, especially in non-traited soybeans or Roundup Ready soybeans (if marestail is glyphosate resistant). The most successful treatments for large marestail in Roundup Ready soybeans have been tank-mixes of glyphosate + FirstRate, glyphosate + Classic, or glyphosate +Synchrony. However, some marestail may also be ALS-resistant, and thus not controlled by those herbicides either.

If Roundup Ready 2 Xtend soybeans are planted, Xtendimax, FeXapan, and Engenia should be some of the most effective herbicides for post-emergence control of marestail in soybeans. Remember that Xtendimax, FeXapan, and Engenia can only be applied to Xtend soybeans.

Another post-emergence option to control marestail in soybeans is to plant Liberty Link soybeans and use glufosinate herbicide. It is important to remember that glufosinate can only be applied post-emergence on Liberty Link soybeans.

For more detailed information, see the “2019 Chemical Weed Control for Field Crops, Pastures, and Noncropland” guide available at the Greenwood County Extension Office.

For more information regarding Agriculture and Natural Resources, 4-H Youth Development, or K-State Research and Extension call the office at 620-583-7455, email me, Lindsay Shorter, at [lindsayshorter@ksu.edu](mailto:lindsayshorter@ksu.edu), or stop by the office which is located inside the courthouse. Be sure to follow K-State Research and Extension- Greenwood County on Facebook for the most up-to-date information on Extension education programs and the Greenwood County 4-H program.