

Technical Bulletin

A publication of the LG Seeds Agronomy Department

Issue 468: September 2019

Late Harvesting of Soybeans

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This year has been one of the most challenging years for farmers and the agriculture industry. We faced extreme wet weather with heavy rains and even flooding early in the year. This pushed planting back for many areas of the Midwest, and even forced record levels of prevent plant access. This year is not over and doesn't look to give us a break for some areas. Harvest could be much later than normal this year with the late planting dates and lack of GDU's in some areas.

Soybeans could present some issues for farmers this fall. As soybeans were much later planted in most of the Midwest, harvest will be pushed back. This brings up a whole list of topics when soybean harvest becomes delayed. How should you manage these soybeans and what can you do to help? Here are a few things to consider or important factors that will impact your soybean harvest this fall.

One thing is – what type of soybeans you planted? Are your soybeans a determinate or an indeterminate variety. This can make a difference on how a frost will affect them or applications of products for harvest aids. A determinate variety will stop growth from the main stem when flowering begins. They may put on a few extra branches but will mainly be focused on reproductive stages. Indeterminate varieties on the other hand will continue to grow from the main stem as R1 begins. These plants continue to grow in height and will add branches. All of the soybeans that LG Seeds markets are indeterminant. Be sure to check with your Agronomist to determine what your soybeans are if you are unsure.

Frost has been a concern of many growers and how will affect their soybeans. Below is a link to an article that explains this in detail. Yield reduction and quality reduction are huge concerns to growers who are impacted by an early frost. If soybeans are at R7 or Beginning Maturity, this is when one normal pod on main stem has reached its mature color and 50% of leaves have yellowed, there will be little to no yield loss. Quality may be impacted such as germ, and you may see green beans if this happens. Once a plant is killed by a frost or a freeze the soybeans will not be able to finish maturing, as why you may see some green beans. Major yield loss shouldn't be expected by frost unless your plants are at the R5 or beginning seed stage. Link to Article about soybeans being frosted:

http://fieldcropnews.com/2013/09/what-happens-to-soybeans-when-they-get-frosted/

A hot topic as of late has been using a harvest aid for soybeans. It is always best to let the plants mature on their own, but if time is not on your side this may be an option. Harvest aid may include using a product like Gramoxone® SL 2.0 to help kill the plants and speed up maturity. This practice is done to help soybeans that you are worried about being frosted or if you want to start harvest earlier. Some growers look at this as an option help start harvest earlier than the middle to end of October. Below is a picture of the label for Gramoxone® SL 2.0 used as a harvest aid for soybeans. This is when knowing the difference between indeterminant and determinant varieties becomes important as they have different application timings. Below is also a link to a Gramoxone® SL 2.0 label, make sure to read and follow all label reequipments and instructions.

Crop	Maximum Number of Applications Per Year	Use Pattern	Gramoxone SL 2.0 Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Directions
SOYBEANS	1	Harvest Aid	8.0-16.0 fl oz	Ground: 20 gal Air: 5 gal	15-day PHI Do not graze.	Restrictions Do not apply within 15 days of harvest. Do not graze or harvest for forage or hay. Precautions Indeterminant varieties: Apply when at least 65% of the seed pods have reached a mature brown color or when seed moisture is 30% or less. Determinant varieties: Apply when plants are mature, i.e., beans are fully developed, 1/2 of leaves have dropped, and remaining leaves are yellowing. Immature soybeans will be injured. Mature cocklebur, especially drought-stressed plants, are tolerant to Gramoxone St. 2.0 and desiccation will not be complete. Always use the higher rate for cocklebur.

http://www.syngenta-us.com/current-label/gramoxone_sl_2.0

If your soybeans make maturity without frost and without a harvest aid you are ahead of the game but may not be out of the woods. As soybean harvest looks to be much later this year, weather could impact your harvest. As day length becomes shorter the ability to cut soybeans for more hours in a day shorten up quickly. Here are a few tips to help with a timely harvest and things to consider.

- Take the time now and make sure all equipment is in good working order. Check the head to
 make sure cutter bar and all bearings are in good condition. Preventive maintenance will help
 reduce down-time in the fall.
- Keep extra parts on hand if possible. It is always a good practice to keep extra parts on hand that
 are high wear items such as knifes and fingers for your head. Nothing kills time more than
 having to run to the dealership in the middle of the day for parts.
- Calibrate your yield and moisture sensors/monitors for your combine. As days get late and we
 get deeper into the season you may need to cut beans longer than normal. It is very important
 to know where the moistures are so you don't harvest soybeans that you cannot sell or store.
 Properly calibrated equipment is key, and make sure to check during harvest to make sure the
 equipment is still calibrated.
- Know your local delivery points discounts. If selling your crop direct to the elevator, it is very
 important to know their discounts and their moisture limits. Some facilities can dry soybeans so
 moisture may not matter but many cannot. These elevators typically have moisture limits and
 will discount you greatly if they are wet. Weigh your options, and make sure you can deliver
 your soybeans. The last thing you want to do is harvest soybeans you can't get rid of.
- Be safe and smart. Don't push the limits to get your crop off and be smart about harvest. I know it is very tempting to finish a field or farm so you can move to the next but if the soybeans are ready you may do more harm than good. Yes, you may finish that farm but what good does it do you to finish if the beans pick up too much moisture to sell or get left in the field because they become too tough.

This year has been a very challenging and a year filled with lots of emotions. Make sure to take your time be safe and be smart this harvest. Don't let your emotions get the best of you and control what you can control. This year will be behind us soon enough, and for many let's hope we don't see another one like this again. Thank you for your support of LG Seeds and have a safe harvest.

References and Additional Information:

- https://www.farmprogress.com/soybean/8-tips-managing-late-wet-soybean-harvest?NL=SO-08&lssue=SO-08_20190812_SO-
- https://www.farmprogress.com/soybean/what-expect-late-planted-soybeans?NL=SO-08&lssue=SO-08 20190812 SO-
- https://www.farmprogress.com/soybean/harvesting-beans-fall-will-require-patience
- https://www.farmprogress.com/crops/help-wrap-tough-year
- https://www.farmprogress.com/soybean/drying-soybeans-different-ballgame
- https://www.farmprogress.com/combines/prepare-harvest-high-moisture-beans-frostedcrops

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