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Proper Desiccation of Dry Beans – Risk Management

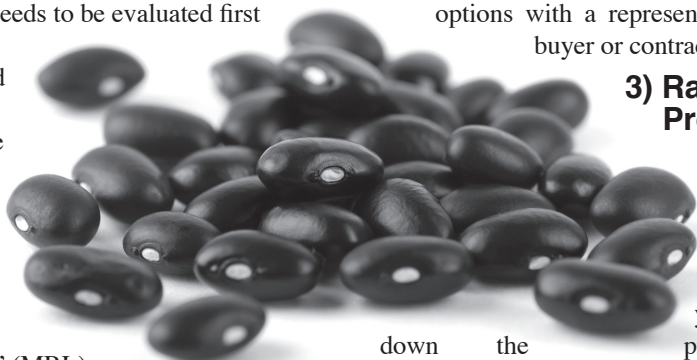
by Mike Eckert, CCA

The dry bean industry in Ontario produces and processes all different shapes, sizes and colours of beans that are shipped to many countries around the world. End users of these beans know that when they buy product of Ontario origin, they are getting a food item that is handled and produced in the safest manner and meet the highest quality standards. A large part of producing this safe food source rests on the shoulders of the grower during the last few weeks of plant ripening, when many producers choose to use a “desiccant” to fast forward the maturity and dry down process of the plant for ease of harvest and improved quality. While not all dry bean fields have a desiccant applied, the majority do ever since direct harvest or “clipping” became the main harvest operation in the industry.

The three main things that need to be evaluated for desiccation are:

1) Plant Staging

Plant staging needs to be evaluated first to determine if you’ve reached the point of maturity where the desiccant product you apply cannot affect the seed by exceeding a “Maximum Residue Limit” (MRL) that is set by the importing country of that product. Different classes of dry beans may vary a little, but for the most part, the proper staging to apply a desiccant is when 80-90% of the pods on the plant have turned completely white. At this staging, the seed itself will be loose from the “skin” inside the pod that held it in place during its development. This loosening means that any desiccant applied that has systemic activity within the plant (glyphosate for example) is very unlikely to enter the seed, resulting in an acceptable MRL. While that may sound simple on paper, the kicker will usually be variability in maturity within the field and



will cause delays in the desiccant application while you wait on the least developed areas to mature. In these variable fields, you need to have 80-90% of the field area with the pod colour change to mitigate risk.

2) Product of Use

There is a short list of products that are registered for use as a desiccant on dry beans in Ontario. The list will continue to grow as more research trials are conducted by chemical manufacturers, OMAF, the University of Guelph and the dry bean industry. Most buyers of dry beans in Ontario have written in their contracts the products that are acceptable to use. This is dependent on the class and type of dry bean. A grower should not assume that all registered desiccants can actually be used. That decision is made by the contracting buyer of the product, as they will know what the export MRL’s are for the final destination of their product. Always remember to discuss your options with a representative from your buyer or contracting company.

3) Rate of Product

Once you establish that your plant staging is correct and you’ve nailed down the product you are permitted to use, all that is left to do is apply the product at the labelled rate for the task. Always apply labelled rates. Do not exceed labelled rates of application as that increases the risk of exceeding the export MRL. Exceeding acceptable MRL jeopardizes food safety and the reputation and integrity of the Ontario dry bean industry.

Food safety must be a top priority for all dry bean growers and processors in Ontario. Following the proper guidelines for pre-harvest desiccation is just one of the practices we must continue to do to keep Ontario grown dry beans the best there are in the world!

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