

AGRICULTURAL BEET

April 25, 2019
Weed Control - Benefits of Pre-emerge
Herbicides

Southern Minnesota Beet Sugar Cooperative
Renville, MN
www.smbcsc.com | 320.329.8305

Planting in May – Why You Need A Pre-emerge Herbicide

The planting window for the 2019 crop will likely be in May. Normally in May the soil temperatures warm quickly and weed emergence will soon follow. For effective weed control in sugar beets, pre-emerge and layby herbicides are important to reduce the emergence of waterhemp. In this edition of the Agricultural Beet, we will discuss the importance of a pre-emerge herbicide application with a May planting date.

Pre-emerge Herbicide Benefits

The chloroacetamide herbicides (Dual Magnum, Outlook, and Warrant) are a vital tool in managing waterhemp in sugar beets. These products are all lay-by herbicides used to reduce emergence of waterhemp and other weeds. The lay-by label for all these products recommends not to apply these herbicides until the sugar beets are at the two true leaf stage or larger. Waterhemp emergence generally begins in mid-May and continues into the growing season. Sugar beet planting dates in May do not allow the sugar beets to reach the two-leaf stage for lay-by applications before the waterhemp begins emerging. This makes the application of a pre-emerge herbicide critical for weed control.

The pictures on the right are from a weed control trial conducted in the SMBSC growing area in 2017. The yellow frame is a 1' X 1' square. The plot in Picture 1 received no pre-emerge herbicide application. The plot in Picture 2 received 0.5 pint /acre Dual Magnum applied pre-emerge. In this heavy weed pressure situation, the benefit of the pre-emerge herbicide in reducing the waterhemp emergence can be clearly seen.



Picture 1 : No pre-herbicide



Picture 2 : 0.5 pint/acre Dual Magnum

Recommendations

Planting Date	Recommendation
Plant Sugar Beet in April	Split lay-by application (early post-emergence / post-emergence) of chloroacetamide herbicides applied at 2-lf sugar beet fb 6-lf sugar beet
	Dual Magnum and/or ethofumesate PRE followed by a split lay-by application at 2 to 4-lf stage fb 6 to 8-lf stage
	Single lay-by application when sugar beet are at the 2-lf stage or greater
Plant Sugar Beet in May	Dual Magnum and/or ethofumesate PRE followed by a split lay-by
Either Planting Period	Continue to scout fields for late germinating waterhemp in late June and July
Either Planting Period	Be prepared to rescue with Betamix + ethofumesate, UpBeet + ethofumesate or Betamix + UpBeet (be aware of resistant biotypes)
Either Planting Period	Cultivate

Recommendations from Dr. Tom Peters, NDSU/University of MN Extension Sugar Beet Specialist

Pre-emerge or Pre-plant Product Options

Herbicide	Rate (pt/A)	Strengths	Weakness
Ro-Neet SB	4 to 5.3 pt/A	Sugar beet safety	Fair to Good waterhemp control. Requires incorporation. Not compatible with cover crops.
Ethofumesate	6 to 7.5 pt/A	Sugar beet safety, good waterhemp control, especially in high OM soils, 8-10 weeks waterhemp control	Nurse crops do not tolerate high rates of ethofumesate
Ethofumesate	2 to 3 pt/A	4 weeks waterhemp control	Wheat and barley do not tolerate etho
Dual Magnum	0.5 pt	2-3 weeks waterhemp control	Generally safe to nurse crops

Recommendations from Dr. Tom Peters, NDSU/University of MN Extension Sugar Beet Specialist

Pre-emerge use of Dual Magnum on sugar beets requires users to agree to the indemnification requirements. This is done electronically on Syngenta's website www.syngenta-us.com. Once you are on the website, click on Crop Protection and then on Indemnified Labels. It will then ask you to log in or create an account. Once you are logged in you can access the indemnified labels for MN. Choose Dual Magnum, agree to terms, and print a label. The label needs to be in your possession when applying the product pre-emerge to sugar beets.



Agricultural Department
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Contact your Agriculturist with any weed control questions.