

AGRICULTURAL BEET

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Considerations for sugar beet
production on prevented plant acres

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Considerations for 2020 Sugar Beet Production on 2019 Prevented Plant Acres

The beginning of the 2019 growing season did not allow for all of the planned soybean and corn acres to be planted. Subsequently, many of these acres will be planted to some type of a cover crop. If these acres are planned to go to sugar beet production in 2020, there are several factors that should be thought through prior to choosing and planting a cover crop on these acres to maximize sugar beet potential for the 2020 season.

Cover Crop Species Selection

There are many choices of cover crop species to plant on the 2019 prevented plant acres. Some of the cost-share programs require a mixture of several species be planted, while other growers may choose to only plant a single species. When you are considering what species to plant, here is a list of items to be thinking about as you make your decisions.

1. Past herbicide programs on the field. Have you applied any herbicides either earlier this season or last season that have the potential to carryover and prevent emergence of one or more cover crop species that you are intending to plant.
2. How will you plant the seed. If you are planting a mixture of several species, be aware of the proper planting depth of each species. Clovers, brassica species, and grass seed generally require very shallow planting depths in comparison to small grain species such as oats or wheat.
3. Is the seed you are planting certified seed? Certified seed is tested for any weed seed content. You do not want to be introducing a new weed species into your fields via the cover crop seed. Palmer amaranth was introduced to several fields over the past few seasons via planting contaminated seed on conservation acreage.
4. Tillage radish is often mentioned as one part of a cover crop mixture. Some radish species are susceptible to sugar beet cyst nematode and will increase nematode numbers. Other radish species suppress sugar beet cyst nematode. Sugar beet cyst nematode has not been found in the SMBSC growing area, however SMBSC does not recommend the use of any radish species that are susceptible to and can increase the numbers of sugar beet cyst nematodes.
5. Do you want the cover crop to winterkill or do you want to plant a winter hardy species that will green up in the spring? If you plant a cover crop that will survive the winter, be sure to have a plan in place for controlling the cover crop in the spring.

Managing Growth of Cover Crop and Seedbed Conditions the Next Cropping Season

A summer planted cover crop has the potential to grow quite vigorously and potentially become large before the end of the growing season. Managing the growth of the cover crop will help manage the residue levels and potentially provide for a better seed bed in the spring of 2020. One way to manage the growth is to consider mowing or using a stalk chopper to reduce the total biomass of the cover crop. When and how to do this operation will be dependent on the species of cover crop you have chosen to plant.

Fertility Considerations for the 2020 Crop

The best way to measure the fertility levels of your field is by taking a soil test. The cover crop will accumulate nutrients from the soil as it grows over the season. These nutrients will be present in the vegetation and thus a soil test taken too early in the fall will not account for the nutrients in the cover crop. It would be best to take the soil test late in the fall, or sampling in the spring may give you the best information as more of the nutrients will have been released from the cover crop residue by spring. The higher the carbon to nitrogen ratio of the cover crop, the longer it will take for the nitrogen to be released from the residues.

A cover crop will also help reduce fallow syndrome during the next crop season. Fallow syndrome is most often seen in corn that is planted on ground that was left fallow or bare the previous growing season. Corn suffering from fallow syndrome is often smaller and can have a purplish color early in the spring due to the lack of mycorrhizae that help the corn plant uptake phosphorus and other nutrients. An actively growing cover crop will reduce the chances of fallow syndrome should you plant corn the next season. Fallow syndrome does not occur with sugar beets as sugar beets do not host this mycorrhizae.

Cover Crop Benefits

Cover crops will not only reduce erosion on your prevented plant fields, if used correctly the cover crops will also reduce nutrient losses, and benefit the crop planted the following season. Be sure to have conversations with your cover crop seed provider to use the best combination of cover crop seed and practices for your operation.

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Contact your Agriculturist with any agronomic questions.

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