Dairy Manure in a Sugar Beet Rotation

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Sugar beets require high soil nitrogen content early in the growing season but benefit from low soil nitrogen later in the season to improve sugar quality. Manure tends to release nitrogen throughout the whole growing season, however, making it difficult to use as a nutrient source when applied prior to sugar beets. But what about if manure is used in other parts of the crop rotation?

Research Objective

• This research aims to evaluate liquid dairy manure application in a sugar beet-soybean-corn rotation. And not just any dairy manure, but manure that has gone through a liquid/solid separation process! Liquid/solid separation is a newer technology that is starting to be used more widely across Minnesota to reduce the volume of manure that needs to be land-applied.

Methodology

Please use the following link to view the methodology and results of this multiyear trial that is still in progress: <u>https://z.umn.edu/ManureSugarbeet</u>

Photo 1. Drone image of the 2022 manure trial taken on Oct. 4th.





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