

AGRICULTURAL BEET

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Setting the stage for a successful 2022

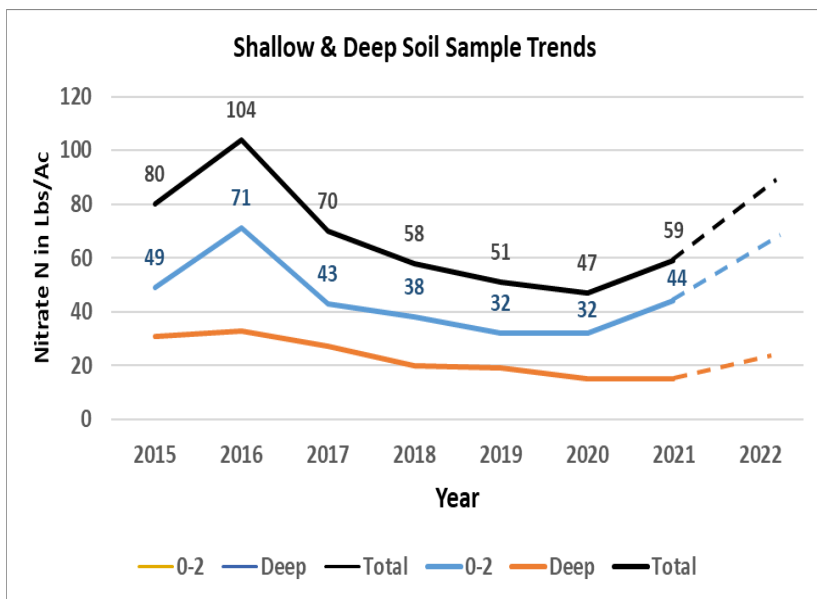
Monitoring Soil Nitrate Trends to Make Appropriate Fertilizer Management Decisions for 2022.

Local soils labs have obtained a preliminary snapshot of fall 2021 nitrate levels from early-season soil sample results. 2021 was a tale of two seasons. We experienced considerably dry conditions from planting through corn pollination and soybean pod formation but received relatively normal rainfall since the end of August. Preliminary soil sample analyses confirm our concerns that the combination of less than average nitrogen uptake by crops coinciding with rain-induced late season nitrogen mineralization after peak crop demand is resulting in a spike of soil nitrate levels. The figure below estimates (with dotted lines) the trend of these preliminary values onto our historic nitrate graph.

Understanding what this means to your 2022 sugar beet production requires observation of nitrogen trends over years compared to our ability to produce high sucrose contents. After a wet 2019 season, low soil test nitrate levels set us up nicely for a high quality 2020 crop. However, as nitrate levels began to increase again in 2021, so did our difficulty in obtaining high sugar contents.

What does this mean? Well... there isn't really anything that we can do to amend what Mother Nature provides us. In other words, these are the cards we appear to have been dealt and all that we can do is determine how we want to play them.

Early results from soils labs suggest that our zero- to two-foot soil depth will possess a considerably larger level of nitrate N coming into the 2022 crop year than in either 2020 or 2021, especially following corn. When this happens, the only strategy that we have at our disposal is *measurement* followed by appropriate *management* and one cannot be performed effectively without the other.



Bottom Line: Please consider taking advantage of the **SMBC Soil Sample Analysis Program** for 2022 sugar beet acres (especially if have not in a while) for insight on increased soil nitrate levels so that you are able to understand your fertility environment and prepare a proper fertilization program.

Steve Roehl – Ag Strategy Manager