

IS APPLYING NITROGEN WITH IRRIGATION WATER RIGHT FOR YOU?

SITUATION

Applying a portion of your crop's nitrogen (N) requirement with irrigation water is a best management practice to reduce nitrate leaching in coarse soils. New irrigation technology systems have made the process of **chemigating** easier.

FACTORS TO CONSIDER

- Soil type
- N application timing
- Management requirements
- Type of nitrogen

ACTION PLAN

1. Decide if chemigating N is right for you. Applying fertilizer through your irrigation system can ensure uniform application and reduce soil compaction. It also helps you control application timing, provides flexibility with changing weather conditions and allows for additional N when the crop is growing rapidly. However, chemigating is management intensive and involves additional equipment and liquid N expense. This practice requires unnecessary water applications and a chemigation use permit. It is not recommended to chemigate more than one-third of your N requirements.



Applying fertilizer through your irrigation system can ensure uniform application and reduce soil compaction.

2. Ensure proper timing. **Timing your N application** is critical to provide corn with the necessary N before the pretassel stage. Plan your nutrient program ahead for preplanting broadcast, planting fertilizers and pretassel application. Finish with the final **N requirements** prior to the 16-leaf stage. Once you have committed to a program, stick with it to ensure the crop receives all necessary nutrients. When a plan is in place, properly calibrate your chemigation injection equipment system.

3. Proper management is key. Manage your irrigation system to prevent runoff. Inspect the check valves, hoses, clamps, fittings, low pressure drain, low pressure shutdown switch and injection meter prior to use. Check the suction line strainer to prevent the injection pump from clogging. Manage travel time and amount of water applied, then recalculate the injection system for proper application. Monitor the injection rate during chemigation process and adjust as necessary. Observe the application underneath the end gun for uniform coverage. If not uniform, consider shutting off the end gun. When finished with each N application, run clean water through the injection meter to flush out any remaining N.

SUMMARY

Chemigating N can be beneficial to supplement preplanting fertilizer application. Weigh the advantages and disadvantages before deciding if it will work on your farm. For more information, contact your local Mycogen Seeds customer agronomist or trusted agronomic adviser.

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