

Investment Insight

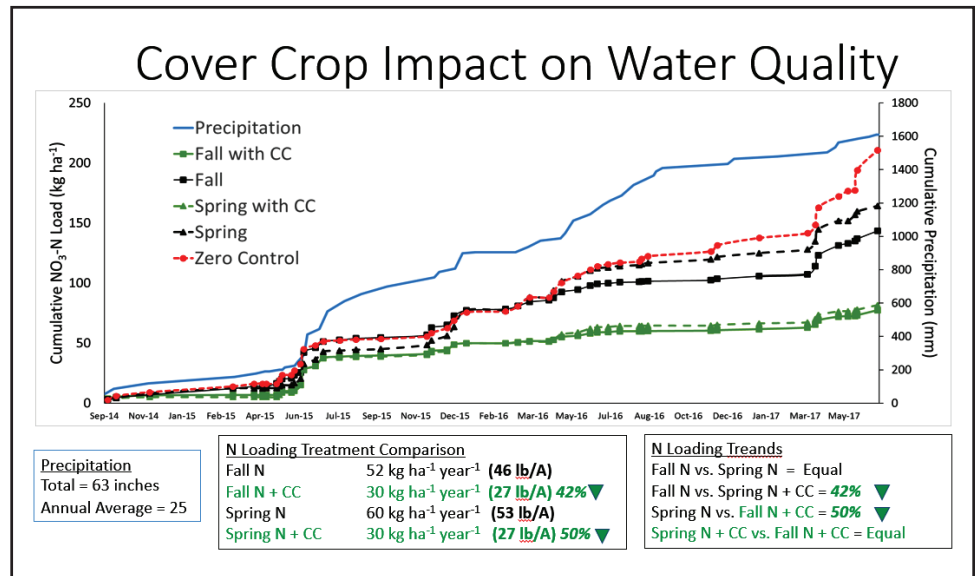
Recent Research Results

Cover crops and nitrogen management impacts on yield and water quality

Cover cropping has been identified as an effective in-field strategy that can be adopted on a watershed scale to reduce Nitrogen (N) loss. But farmer adoption of this system has been slow – possibly due to a lack of knowledge on how cover crops affect N cycling and the fate of fertilizer N within different N management systems.

Dr. Shalamar Armstrong of Purdue University is working with a team to answer some common questions about cover crops and N:

1. Can cover crops reduce the amount of fertilizer N lost?
2. What percentage of cover crop scavenged N will be available to the next crop?
3. What are potential adaptive N management strategies that can be used in a cover crop system to achieve optimum corn yields?



Nationally, only five-percent of row crop land utilizes cover crops in an N management system.

Thus far Dr. Armstrong and his team have shown that cover crops are effective in reducing N loss through tile drains, regardless of what N management system the farmer is implementing. The species of cover crop and the C:N ratio does influence the release of

N from cover crop residue after its termination. Cereal rye residue, in particular, releases N into the soil for the following corn crop to use.

