

# Smart Fertilizer Management Practices Lead to Smarter Agriculture



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*Dr. Nancy Jacobson* taught biology and a course on global warming for over 20 years at Ithaca College. She retired several years ago in order to spend more time as a volunteer at Citizens' Climate Lobby including as the lead of their Agriculture Action Team. She has worked as at Citizens' Climate Lobby for more than 8 years and she became a Cornell Climate Steward (CCS) in 2022.



Even though crops need sufficient nitrogen intake for sustained and productive growth, overuse of nitrogen fertilizers can result in reduced crop quality and increased susceptibility to diseases. Excessive deployment of nitrogen can in some cases also lead to water contamination and emit nitrous oxide to the atmosphere.

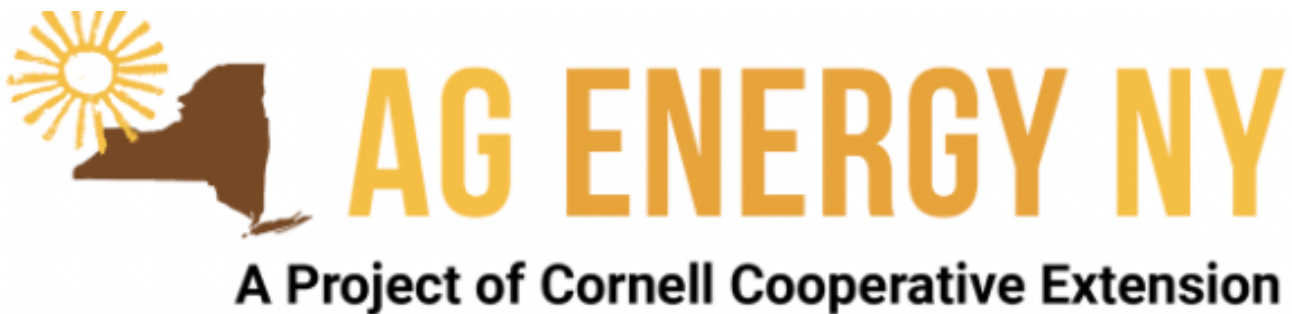
As an expert in biology and agricultural sciences, Dr. Jacobson recognized the prevalent lack of understanding among NYS farmers on these impacts and she contributed to the creation of Cornell Cooperative Extension's (CCE) "Ag Energy NY" web page on soil health and nitrogen fertilizer management, guiding land managers to better incorporate those aspects to create more environmental-friendly farms across upstate New York.

Dr. Jacobson's website details "many ways to reduce N-fertilizer use while maintaining yields." By employing alternative sources of nitrogen and applying fertilizers at a rate compatible with plants' growth patterns, farmers would not only be able to conserve natural resources and protect



the environment but also become eligible for grants that reward these efforts to combat climate change. The “Ag Energy NY” website also offers no-cost energy assessments to help farmers prioritize improvements and guide farmers to implement more sustainable practices.

One rarely witnesses committed climate change action at the local level since people often consider climate change as a distant problem. As a result, Dr. Jacobson’s work assists the larger campaign of developing awareness of smart agriculture practices and their importance in mitigating climate change in the rural NYS landscape that is packed with farms. Follow more posts from CCS to learn about the interesting work our volunteers are conducting and how you can contribute to local climate actions.



The Cornell Climate Stewards Program trains volunteers on the science and solutions to climate change, so that they can support their communities with local climate action projects. For more information, visit the Cornell Climate Stewards website at <https://climatestewards.cornell.edu/>

