



NMSP Internship Helps Cornell University Agricultural Science Student Lars Demander Find the Right Fit

By Lisa Fields

Lars Demander will be among Cornell University's May 2014 crop of graduates, earning his B.S. degree in Agricultural Science. This fall he heads to the University of Connecticut as a Masters student in Agricultural Economics with a focus on local marketing.

Before college, Demander grew up quite literally watching his family's Clover Nook farm in Bethany, Connecticut, grow their retail vegetable operation. He explained, "When I was young we only grew a few different types of vegetables and not a very large quantity either. When my parents first started they sold the produce on a table under an umbrella. Now we have about 35 acres in vegetables and sell about 30 different types and varieties in our farm's retail store."

Demander has played a key role in the family business and designed the Community Supported Agriculture (CSA) venture that started in 2014. He elaborated on being the 8th generation of the family's farm. "My mother's family started the farm in 1765. My grandfather had a dairy herd, but shifted to replacement heifers and beef in 1981. My parents took on the farm in 1991 and continued with heifers, beef and hay production. We maintain a small beef herd and hay production along with the vegetable operation. By the time I was in my teens I took particular interest in managing our tomato crop. It's challenging but also rewarding as they're a customer favorite."

Clover Nook's history stands in contrast to the changes over time in the surrounding community. "I was the only kid in my high school from a farm," Demander noted. "I knew I wanted to continue my education in something relevant to agriculture, and I liked the Cornell campus and Agricultural Science curriculum so I applied. Honestly, I thought it was a long shot for me, and I was very pleased to be accepted."

Professor Dr. Quirine Ketterings, leader of the Nutrient Management Spear Program

(NMSP) in Cornell's Department of Animal Science connected with Demander in 2013. His advisor, Dr. Antonio DiTommaso, guided him toward Ketterings to fulfill the degree program's internship requirement.

Demander commented, "When I pursued the internship with NMSP I wasn't completely sure about my future direction. Agronomy, Horticultural and Soil Science, as well as Nutrient Management all interested me. It seemed like a good idea to gain some direct experience with the research process from field to laboratory work and data analysis."

Ketterings explained, "Lars emailed me to see if he could join us in the summer of 2013. He wrote that he was looking for a summer internship experience that would help him decide whether or not to pursue graduate school. He was uncertain about his future direction but certain in his dedication to determine that direction prior to graduation. That is what these internships are all about...gaining exposure and perspective."



Lars Demander (right) harvesting a study on nitrogen needs of winter cereals seeded after corn silage harvest for forage production the following spring.

During his NMSP internship Demander gained the skills and exposure he had hoped for. He said, "I grew up doing field work, but not in a research setting. It was eye-opening to learn what's required to set up field plots so

that you get meaningful results. I spent a lot of time processing samples and helped analyze data. Project results really have an impact when you're involved from the point of plot set up in the field all the way to data crunching."

By the end of Demander's internship he felt ready to make some critical decisions about his next steps beyond graduation from Cornell. He explained, "Working in the field with graduate student Emma Long I gained a good awareness of what's involved when research is the main focus. The insight I gained about the level of detail and dedication required really helped me think through my choices. I have a goal to return to the farm and I decided that agronomy or horticulture wouldn't be the right focus for my graduate studies. They are important and interesting fields, however I believe studying agricultural sciences as an undergraduate has given me the science base I need. So I decided that for my goals, the economic piece is what I needed to build."

Despite his choice to focus on economic studies, Demander noted the applicability of communication and writing skills acquired during his NMSP internship. "I had a technical writing assignment to produce a factsheet about zone (strip) tillage. To be accurate with my description I had to understand the technical components of zone tillage equipment. There was research involved so that I could describe the purpose of zone tillage and the pros and cons of using it."

The review process is an important component of the factsheet assignment. Demander explained, "Karl Czymmek of Cornell's PRODAIRY Program, Tom Kilcer, consultant and retired extension educator, and Shawn Bossard, farm manager at Morrisville State College, all reviewed my writing to help make sure the descriptions were clear and that I covered the essential pieces of information. While Quirine was guiding me with this I learned a lot about the process of putting information into a public friendly format. The importance of keeping sight of your audience in your communications is a skill that's very useful for the vegetable business, working with

the CSA and retail customers, too." Demander's factsheet can be viewed [here](#).

Student internships are an important piece of the NMSP program. Ketterings said, "To a large degree, agriculture's future lies with the students. It's gratifying to impart a strong set of skills to them, no matter their particular future direction. In turn, working with students keeps our own team sharp. When you are teaching someone you take a fresh approach to the information and procedures that can become mundane with daily routines. We enjoyed being able to guide Lars in technical writing and provide exposure to on-farm research and the Cornell Cooperative Extension system."

His life growing up with an evolving business and drive to learn were also influential in shaping Demander's choice to pursue a Master's in Ag Economics. He commented, "I have a great appreciation for what my parents have done with the farm business. My dad didn't farm before my parents returned to Clover Nook. Through a lot of hard work and making good decisions they've grown a very successful business. It's a lot to be proud of, and our customers are very appreciative that we're here in what has become a suburban area. We're well supported and we can barely meet the demand. There's a good foundation for me to build a future on."

Demander summarized the value of his NMSP experience. "The internship gave me the chance to learn particular skills, but I also got a broader exposure. It was very beneficial to attend field days and get to interact with other researchers and Extension staff. Assisting with various projects that were going on, working both in the field and the lab, I gained skill in managing my time. I'm grateful for the experience with NMSP. I learned a lot and it helped guide me in the direction I want to go."

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The **Nutrient Management Spear Program** (NMSP) is an applied research, teaching and extension program for field crop fertilizer and manure management on dairy and livestock farms. It is a collaboration among faculty, staff and students in the Department of Animal Science, Cornell Cooperative Extension, and PRO-DAIRY. Our vision is to assess current knowledge, identify research and educational needs, facilitate new research, technology and knowledge transfer, and aid in the on-farm implementation of strategies for field crop nutrient management including timely application of organic and inorganic nutrient sources to improve farm profitability while protecting the environment. An integrated network approach is used to address research, extension and teaching priorities in nutrient management in New York State. For more information on NMSP projects and extension/teaching activities, visit the program website (<http://nmssp.cals.cornell.edu>) or contact Quirine Ketterings at qmk2@cornell.edu or (607) 255-3061.