Champlain Valley Crop, Soil & Pasture Team

THE UNIVERSITY OF VERMONT EXTENSION

Winter 2018

In This Issue

FOCUSING ON AGRICULTURE IN THE CHAMPLAIN VALLEY AND BEYOND

By Jeff Carter, Agronomy Specialist

Changes for a New Year

Good luck, Rico!

Our Extension agronomy team continues to change, so please join us in extending best wishes to Rico Balzano as he leaves UVM Extension. Rico has been an integral part of our agronomy outreach team in Middlebury for the past six years, working with farmers and industry professionals on Lake Champlain Basin water quality issues. Most recently, his program emphasis was with farmers in the South Lake Champlain region of the watershed. He has taken a Soil Conservationist position with United States Department of Agriculture Natural Resources Conservation Service (USDA NRCS) in the Rutland office and will continue to work with local farmers on soil health and water quality protection practices. We will continue our work with Rico, just from a different angle. This is a step forward for Rico as he builds on his experiences with the New York City Watershed and then with UVM Extension – all focused on farmers, crops, soil, manure and water quality.

The rollout of the RAPs (Required Agriculture Practices) has been a big change for farms this year, and will continue to challenge us this winter. The ink is not yet dry on the RAPs, but there has already been adjustment to them as the RAP development committee continues to work on waivers for specific practices (flooded soils, buffer widths). Additionally, the Vermont Agency of Agriculture, Food and Markets (VAAFM) is responding with proposed rules of Best Management Practices (BMPs) for land with systematic tile drainage.

For us in Middlebury, the Champlain Valley Farmer Coalition (CVFC, page 5) farmers have been engaged in discussions with the VAAFM and with legislators every month in an effort to keep on top of all that is happening. Our Farmer Coalition meetings provide a common point for all farmers to have some say in all the rules and laws coming into play. I know the Farmer's Watershed Alliance (FWA), Connecticut River Watershed Alliance (CRWA) and the Dairy Producer Alliance (VDPA) are also great ways to have informed and productive farmer discussions about the water quality laws and impacts on our agriculture businesses. Members of the CVFC group receive weekly updates about legislative activities through that organization, so joining with other farmers can keep you informed and also let you be a part of the response being coordinated and directed back to the agencies and legislators.

The winter months are so full of meetings, and we will keep sending you notices about opportunities as they come up. Every year, we coordinate with the Northwest Crop and Soil Team to offer Nutrient Management (NMP) classes for farmers to write their own NMP. This program reaches across the state, working with Heather Darby and the Conservation Districts, and we will teach classes in Middlebury and Rutland. These classes are critical for the many farms that now fall under the state mandate for a formal farm plan that meets the NRCS 590 standard for nutrient management. Remember that writing a NMP is not a one-year deal; it has to be updated with records and replanned every year. That is why we offer these update sessions to you each winter.

Other events include the CVFC annual meeting, the Vermont Farm Show, our annual No-Till Cover Crop Symposium and our new pilot grazing classes. We hope to see you at the Farm Show and we will be there on Monday, January 29 to take in your hay, silage and grain crops for display and competition.

As we move ahead with excitement for the coming spring, I hope this new year is kind to you and your family.

NEWS, EVENTS & INFO YOU SHOULD KNOW

2018 Vermont Farm Show – January 30, 31 and February 1, 2018

Your product entries for the Vermont Farm Show can be dropped off at a nearby Extension office or other location by **4:00 p.m. on Friday, January 26** or drop them off at the Champlain Valley Expo on **Monday, January 29 between 9:00 a.m. and 4:00 p.m.** (judging starts at 4:00 p.m.). Give us a call to find out which offices are participating and what the rules are. Read more about the farm show at ***www.vtfarmshow.com.*** We hope to see you there!

Nutrient Management Planning (NMPs)

Winter is the time to create and update your plan. NMP classes begin in January. If you need an NMP but don't have one, please contact your local conservation district to get the process started for next winter's classes. NMP update sessions for those farmers who have already taken our class and finished an NMP with us will be held in February and March. Tentative dates in Middlebury are **February 8 and 15, and March 8 and 14, 9 a.m. to 3 p.m.** An RSVP is requested - please call our office to confirm you are coming. Remember, an NMP has to be updated every year to be accurate and reflect Vermont RAPs regulations. If you need to find out whether your operation is required to have an NMP call us, 802-388-4969, or check out Vermont Agency of Agriculture, Food and Markets (VAAFM) online at ***go.uvm.edu/raps***.

5th Annual No-Till and Cover Crop Symposium – Registration Is Now Open

March 1, 2018

DoubleTree by Hilton (formerly the Sheraton Burlington Hotel and Conference Center) in Burlington, Vt.

Learn the latest techniques! Discover how your neighbors are using this integrated system of cover crops and no (or less) tillage to create better soil health, increase profitability and meet water quality goals. Learn from other farmers, talk to your local ag dealers about equipment or seed, speak to NRCS about funding, listen to regional and national experts, and hear about research at UVM and in nearby states. This is the fifth year of this conference! If you haven't come in a couple years, now is the time to come back and celebrate. Let's keep the momentum going!

For more information and to register go to ***go.uvm.edu/ntcc.***

8th Annual Organic Dairy Producers Conference

Thursday, March 15, 2018 at Vermont Technical College. More details to follow at ***go.uvm.edu/crop-soil-events.***

Farm Business Clinics

The clinics will run from **January through April 2018**. This is an opportunity for farmers to meet privately, one-on-one, for 90 minutes with a UVM Extension Farm Business staff member. Meetings are conveniently scheduled at various locations across Vermont. Use the time to develop a balance sheet, update financial statements, review a business plan, consider changes to your business, and more. Registration is $25. For more information about this program contact 1-866-860-1382, or register online at ***go.uvm.edu/businessclinics2018***. Ongoing **Water Quality Business Planning** is an additional in-depth program also offered by UVM Extension (find more information on page 4).

SHOULD I HAVE CROP INSURANCE?

By Jake Jacobs, Agricultural Risk Management & Crop Insurance Educator

Finances are especially tight for many Vermont farmers right now. This might lead a farmer to ask the question, "Is it worthwhile to pay for crop insurance?" To answer that question, farmers need to carefully evaluate their specific business risks, as well as the costs and potential benefits of crop insurance.

Know your risks. Without crop insurance, what production and revenue risks will your agricultural enterprise be exposed to? Start by assessing your farm's projected bottom line. How much does your profitability depend on the productivity of your crops? How volatile is the market for your product(s)?

Crop insurance is one risk management tool, providing financial security for farmers and their businesses in the event of a weather-related disaster, a shift in market conditions or certain other unforeseeable circumstances. The unpredictability of market conditions and the weather can devastate a farm's profitability, and the indemnity payments received from crop insurance can make the difference between a catastrophic business loss and the ability to continue farming following a shattering event.

With provisions implemented in the 2014 Farm Bill, crop insurance is an integral part of U.S. farm policy. Today, crop insurance protects more than 90 percent of the nation's planted acreage, and as a public-private partnership, it replaces more costly disaster bills of the past. With federal subsidies, crop insurance is more affordable and the expanding options make coverage available to more producers, including specialty crop growers, organic producers, and new and beginning farmers.

A farmer should realize, however, that a crop insurance indemnity payment will not match what a farmer can receive from harvesting a good crop. As with homeowner's or auto insurance, the farmer has to pay a deductible and any loss has to be verified. But crop insurance may provide some peace of mind in the face of variable conditions in an inherently risky business.

Take action now so you can make an informed decision. Contact a licensed crop insurance agent to determine the best coverage and program for your farm. Consider crop insurance as part of your overall farm business plan to decide if it fits into your risk management efforts. You can find a licensed crop insurance agent by going to ***www.rma.usda.gov/tools/agent.html***. **The sign-up deadline for most spring-planted crops is March 15.**

UVM EXTENSION PROVIDES FINANCIAL ANALYSIS FOR PRODUCERS DOING WATER QUALITY PROJECTS

By Tony Kitsos, Farm Management Educator

UVM Extension Agricultural Business Program is currently taking applications for financial review and cash flow analysis on projects related to compliance with the new water quality regulation RAPs. Staff began working with agricultural businesses of all types and sizes in the fall of 2016 to help producers assess the capability of their farms to meet the financial demands of completing their projects. To date, we have assisted 20 producers in their efforts to achieve compliance on projects associated with manage manure storage, bunker silo leachate, barnyard runoff and milk house waste.

For some, assistance is as simple as a couple of phone calls and a well-placed referral to another Extension specialist. For others, it might take a full confidential analysis, providing essential financial guidance. We also facilitate team meetings with the many stakeholders (agencies and service providers) involved in helping reach reasonable solutions to these complicated problems. Additionally, we often make referrals within Extension to find the advisors best fit for the producer to work with as they navigate the many regulations and possible solutions to their situations. **The project is currently funded through the fall of 2018, and we are signing up new farms weekly.**

For more information on this project or other work Agricultural Business is doing, contact Tony Kitsos in St. Albans at 802-524-6501, or email ***tony.kitsos@uvm.edu.***

FALL PASTURE WALKS HIGHLIGHT EXTENDED GRAZING SEASON

By Cheryl Cesario, Grazing Outreach Professional

This fall we held two pasture walks to explore what strategies they use to graze late into fall months. These events were part of a new program funded by United Natural Foods, Inc. (UNFI) to support farmer meetings in the Champlain Valley. We discussed grazing strategies, markets and economics, and of course, had some fun visiting other farms.

Focus on Dry Matter Intake and Genetics for a No-Grain Dairy

The first farm we visited was Mike Eastman's 220-acre farm in Addison. He has been grain-free for about 12 years, and gets a premium by shipping milk through Organic Valley as "Grassmilk." Mike likes to keep things simple; instead of permanent high-tensile fence, he uses single-strand polywire, with the flexibility to graze or hay a field. He manages his stocking rate so he can regularly graze into December, only starting to feed supplemental hay in November. To make up for no grain, Mike ensures his cows are consuming enough dry matter in good quality forage, including a mix of grass species and legumes such as clover and birdsfoot trefoil. Mike moves his cows to fresh pasture after each milking, and allows adequate rest by using a 60- to 90-day rotation. By mid-summer many pastures will head out and go to seed. As a result, he has not seeded or plowed his fields in 20 years. Post-grazing, Mike likes to see a mat of grass from animal trampling, which protects the soil and keeps it cooler in hot, dry summer months. Instead of a set rotation, he follows the grass regrowth to determine the next spot to graze. This systems works in conjunction with selected animal genetics, using Norwegian Reds and Scandinavian Ayrshires. His goal is animals that keep good condition and breed back easily, as well as selecting for the A2 milk protein.

Stockpiled Tall Fescue for Late Fall Grazing

A few days before Thanksgiving, we visited Brian Howlett's organic farm in Whiting, where he had his cows grazing thick, green stands of tall fescue. He anticipated he would be grazing this through the first week of December. This stockpiled hay field was planted in 2006, with one of the newer tall fescue varieties, "Kora," along with a branch-rooted alfalfa. After 11 seasons, the alfalfa has mostly died out, but the fescue is still vigorous. Brian ensures a late season feed supply from these fields by planning his last cut no later than Labor Day weekend and grazing the regrowth. Late in the season, he moves the cows daily at noon allowing enough time for frost to melt off the next paddock. Cows can also go freely back to the comfort of the hoop barn to enjoy free-choice heifer quality hay, if the weather is less than ideal. Brian varies the rest period on pasture from 20 to 70 days, depending on regrowth, with longer rest periods during dry periods. Like Mike, his fencing is completely single strand polywire for maximum flexibility of paddock size and placement and ease of switching from haying to grazing. He feeds a minimal amount of grain, and is considering moving to a no-grain system, but hasn't felt his feed quality has been high enough yet to make the switch. A new in-line wrapper he just purchased may make the switch more achievable. Brian has been calculating the revenue per acre from each paddock by combining a grazing chart and milk production records to track milk per acre from pasture.

In both cases, stocking rates, rotation length, flexibility and pasture quality help these farmers save money by adding days on pasture and reducing stored feed costs.

If you would like to receive notices about our 2018 pasture events, contact Cheryl at 802-388-4969 ext. 364 or ***cheryl.cesario@uvm.edu.***

CHAMPLAIN VALLEY FARMER COALITION INC.

FARMERS WORKING TOGETHER FOR A CLEAN LAKE CHAMPLAIN AND THRIVING AGRICULTURE IN VERMONT

WHY DO WE CARE ABOUT WATER QUALITY?

Farmers care about water. High quality milk comes from cows who drink fresh, clean water. Farm families drink water that comes from ground wells, streams and the lake. Farmers also enjoy recreation; they fish, boat and swim in Lake Champlain. Farmers care about their land, and despite economic and time pressures to do otherwise, they want to be able to pass their farm onto the next generation in as good or better condition. They want to contribute to the local economy and preserve the local environment.

Thinking about this another way, farmers often occupy land that is "ideal" for development. However, keeping the land in productive agriculture while addressing water quality both protects the land and contributes to the aesthetics of Vermont's working landscape. Clearly, maintaining both objectives – water quality and farming – can be a challenge in a world where there are increasing pressures on farmers to operate under thin margins and do more with less. With those realities in mind, the Champlain Valley Farmer Coalition, Inc. (CVFC) helps farmers make decisions that have positive impacts for both their bottom line and for the environment.

How does CVFC address water quality?

We facilitate dialogue among farmers, and between farmers and many other organizations. In addition to fostering common ground, continued dialogue is necessary to gauge success and find solutions that work for the farm community. Solutions that come from the ground up and are farm-tested are much more likely to be adopted and used over the long term.

Nutrient Management – A common public misconception is that manure is always a "waste" or "pollutant." From a farm perspective, manure is a valuable natural resource for nutrients that the farmer needs to grow crops, and utilizing manure means that a farmer can apply less fertilizer to a field. Nutrient management is a complex tool to help farmers make the best decisions about when and how to apply nutrients.

Soil Management – "Soil health" is an important concept gaining traction across the country. Farmers are learning that promoting soil health can be a win-win for their farm and the environment. The challenge is that while "soil health" is universally relevant, it is very locally applied. That is, soils vary a lot in their capacity for change, and local factors such as regional weather and climate effect how crops are managed. Soil health focuses on keeping the soil covered and adding organic matter to the soil. Soil health practices include using reduced/no-tillage and cover crops, and intensive grazing management. Additional practices used to compliment field-based management include field buffers and grassed waterways. To learn more about nutrient management and soil health, visit ***go.uvm.edu/ag-water-quality-videos***. Watch "Feeding the Soil: The Scoop on Poop" and "Protecting the Soil: Cover Crops for Clean Water." These videos were developed by CVFC, the Connecticut River Watershed Farmers Alliance (CRWFA), and Farmers' Watershed Alliance (FWA) in cooperation with University of Vermont Extension, and show farmer contributions to healthy soil and clean water.

What can YOU do?

Become a member of CVFC to stay involved and informed when you have limited time to sort through information. CVFC hosts farmer field days, bus tours, monthly and annual meetings, and newsletters where farmers have opportunities to discuss what they are doing and share with each other what is working, what isn't working and what has potential to work. Individuals and business members can also stay abreast of these issues by being a part of the Coalition. Visit ***www.champlainvalleyfarmercoalition.com*** for information or to become a member.

WINTER IS THE TIME TO FOCUS ON RECORD KEEPING

By Kristin Williams, Agronomy Outreach Professional

Going into the sciences, I discovered the value of writing things down. General advice being, "the more notes the better." But, admittedly, this takes discipline and may be impractical. In our work we encounter many farmers whose main record keeping tool is their memory. I'm always impressed by the level of detail a farmer can pull out of their head – how many bales they took off a field last year compared to this, or what the weather was like ten years ago. This level of attention to detail is what makes a good farmer.

We aren't trying to replace this first-hand knowledge, but we are trying to help farmers in their decision-making process.

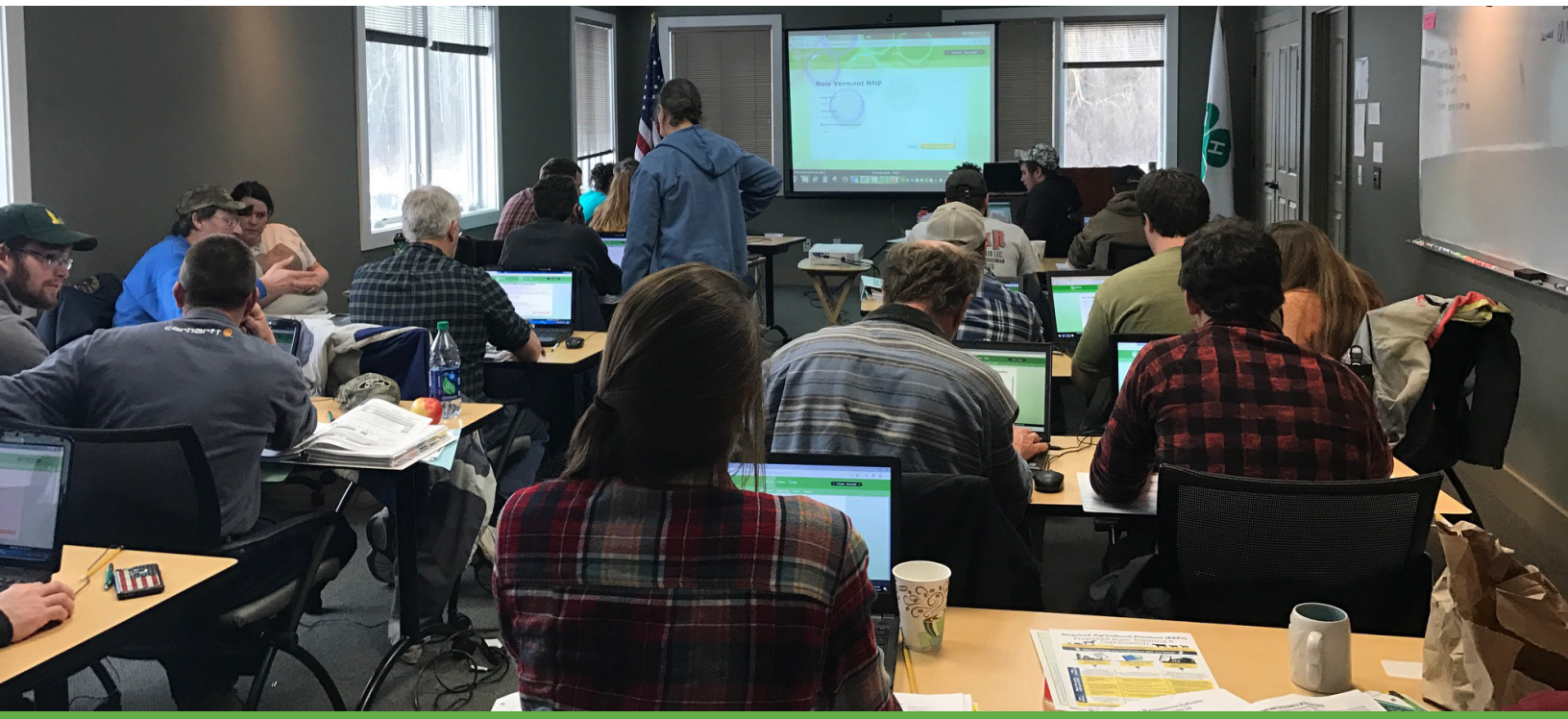
When a farmer needs to make critical decisions it can be helpful to have easily assessable written records to analyze. How much time or effort you spend getting accurate and precise numbers should depend on the type of decision you are making. Precision agriculture is so named because it measures things in the field, say soil-N, more reliably. Not every farm scale or type needs precision ag equipment. However, there is probably some measuring and record keeping all farmers can use to improve their operation. Likewise, when making financial decisions, the ability to have accurate accounting greatly improves the likelihood of making financial decisions based on a correct assessment of risks versus rewards. Making decisions by the seat of one's pants might work if you are clever or lucky, but it is not a reliable way to make decisions.

We spend a fair amount of time, in the winter months particularly, helping farmers develop and maintain nutrient management plans. Farmers should know by now that plans are required on most operations. Even the smaller farms need to take soil and manure tests, and record the basics. The value of NMPs evolves over time as farmers become more adept at the process and discover what is useful to their operation. One challenge that often arises is that many farmers just aren't interested or skilled in working on a computer. Through UVM Extension's class, many are surprised at how they improve in this area, while knowing we are here to continue guiding them through the process. The challenge, and the reward, of nutrient management planning, is that it is an annual process. This means farmers have the opportunity on a yearly basis to reflect on their operation and improve their plan.

We have one farmer who innovated a grazing calendar to keep track of all his practices on the farm like planting, fertilizing and harvesting, and then enters that data into the computer. Another farmer would dutifully fill out his online records every night after each operation, but that became too onerous this year with the hectic weather conditions. Another farmer keeps his records in a regular notebook, but finds our help useful for his organic certification. Strategies evolve with reality, and it takes times to figure out what works individually for each farm. It certainly requires follow-through, but the rewards can be worth it when it comes time to make major management decisions.

Growing up on a farm, my stepfather's main record keeping tool was, and still is, a small notepad kept in the pocket of his shirt. Only he could read it or understand it, but it was easy to access for real-time note taking. For years, we would have debates about the merits, or lack thereof, of computer-based records. He was always diligent about soil tests, but recently took a class to write an actual NMP. I notice these days that I find him on the computer more than I used to, as he finds time to research antique tractor parts and watch videos of skidders. As it turns out, computers aren't as useless or as scary as he might have thought, and hopefully that applies to record keeping as well.

Below: Farmers and service providers work on nutrient management plans (NMPs) at a Middlebury class.



ONGOING FIELD RESEARCH AND A LOOK FORWARD

By Nate Severy, Agronomy Outreach Professional

Winter is here, which means spring is just around the corner. I think it is safe to say that everyone is glad the 2017 cropping season is over. The one bright spot may be local reports that hay yields were excellent, even if the quality was not.

Update on Field Research and Demonstration Projects

Even here at UVM Extension, we struggled in 2017 to complete our field projects. Like all of our farmers, our normal windows of opportunity for getting field work done were greatly reduced. Sometimes, they were nonexistent, with wet weather and soil conditions, and corn that took longer to mature and dry down. Our work with gypsum field amendments will continue next year. We are looking at the use of gypsum as an amendment for high phosphorus fields, as well as for improved soil structure and soil health. We have sent off the first year of soil and forage tests, and are awaiting results. Additionally, we began a three-year study looking at different liming materials on a variety of crops, but we got a late start so that project will evolve next year.

Another project just getting started is collaborative work funded by the VAAFM. This supports multiple Conservation Districts and UVM Extension sampling a total of 40 tile drainage outlets throughout the entire Champlain Valley. We will be collecting water samples at 10 anonymous testing locations. These will be analyzed for total phosphorus, dissolved phosphorus, nitrate, turbidity and flow rate. This data will help us understand if nutrients move through soils and into tile lines when fields are systematically tiled. We are interested in seeing how nutrient loads may vary under different management practices, throughout the year and with weather. There is a need to understand how management changes can impact nutrient loading, so we can develop good recommendations as we continue to help farmers make choices both for economic and environmental sustainability.

Planning Your No-Till Strategy for Spring

We've had a continued focus on helping farmers reduce tillage and keep soils covered all year. With this in mind, a common question is, "When do you plant no-till corn, especially when planting into a hay field?" My response is usually, "It depends." As is with most farming decisions (organic or conventional), determining when to terminate a previous crop and plant a new one is dependent on site conditions. A well-drained loamy field may be planted the beginning of May, while an untiled clay field won't be ready for several more weeks. After advising and watching farmers in our area for several years, I think it safe to say that you should no-till plant corn or soybeans as soon as the soil moisture is good for planting, which would be similar to conditions for tillage. Conditions should be dry enough so that you don't smear the sidewalls and that your furrow will close, but wet enough so that the planter goes in the ground easily and the closing wheels can pull that furrow back together.

If we have a wet spring and you cannot get onto your fields until the hay or cover crop are of a harvestable height, either take off that crop and no-till into the stubble, or roll/flatten it to the ground and plant into the residue. Leaving it standing has produced mixed results. Of course, good cropping all starts with good seed selection and seeding vigor is incredibly important. Extra subsurface nitrogen at or near planting will fuel that young corn plant until more nutrients are mineralized from the soil. This is even more important on wet years or situations with high-carbon residue.

Winter is the time to determine what you are going to do, and remember to develop "Plan B." A little planning now will pay dividends come harvest.

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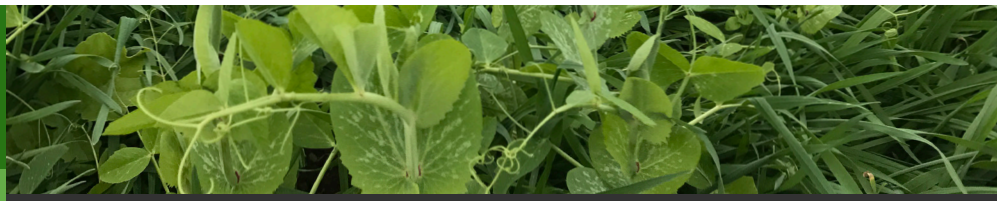

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