

THE VERDANT ELEMENT

Lakeland Agricultural Research Association

Getting Dirty in Farming

Well, we are most of the way through winter and have survived one of the longest cold snaps in decades, along with a large amount of snow. At this point, we have probably long abandoned our resolutions, or maybe you are sticking to your guns and your resolutions. Either way, every new year brings with it possibilities and hopefulness as the days grow longer for a great year ahead. Some may be heading into calving season, but this is a great time to review last years growing season, and make plans for the upcoming spring. What changes are you thinking of? Is there something new you want to try to manage? New crop, new variety, or something in between?

We have hosted a wide range of webinars this year, one that I was particularly intrigued by was intercropping. Our perception of what a beautiful crop looks like needs to change. Human nature is to love a monoculture; seeing that sea of pure green or yellow makes our hearts happy, but our soils not so much. We need to learn to appreciate a 'dirty' field, one where diversity equates to profitability and healthier soils and crops. As our producer panel noted, peola (the intercrop of peas and canola) is like a gateway drug into unlimited possibilities of species composition. Each producer had their own goals, ranging from erosion control, snow capture, reduced inputs (especially important this year with high costs), but bottom line they had positive results and profitability. They are also expanding their acres and mixes.

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Diversity increases your likelihood of success, which was seen by a few producers, as last year we had some of the earliest seeding in years, but then had a hard late frost in May that took out a lot of canola acres. Those that seeded an intercrop had the other species to back up the canola, and did not have to reseed those acres and grew the remaining species as a monoculture. Diversity creates an environment that decreases the instance of disease, weed pressures and improves nutrient cycling. Also, all the microbes and drivers of soil health thrive, with added diversity.

"Dirty" farming is not the only thing where we can add diversity; this year I am going to be brave, and fight my instincts and create a chaos garden. What is a chaos garden you might ask? It is mixing all of your seeds together and sowing them at random. No rows, no order, just wild abandon. It makes sense as companion planting has been happening in what seems like forever. You can look to Indigenous cultures, as they had the three sisters: corn, beans and squash at the heart of their harvest. I dare you to google companion planting and be frankly overwhelmed by the sheer volume of what is out there. Nature is chaos, and messy and works in unison with itself. For every pest (such as insects), there are so many beneficials to help control it. Working with nature allows us to benefit so much more than with us trying to control it.



With fertilizer prices this year heading into the stratosphere, utilizing intercropping and cover crops is much more attractive to increase nutrient availability in the soil. It also helps with water availability, as there is greater infiltration and water holding capacity, which was very evident with the heat dome and last year's drought. In any case, it might be something to consider for your own operation.

"To forget
how to dig
the Earth and
to tend the
soil is to
forget
ourselves."

MAHATMA GANDHI



Canadian Agricultural Partnerships <https://cap.alberta.ca/CAP/Programs>

The Canadian Agricultural Partnership (CAP) Farm Technology Program supports the adoption of innovative technology that minimizes agricultural waste, optimizes farm efficiency and results in the digitalization of an operation and sensors for the purpose of data collection. The farm security component of the program encourages the adoption of security devices that help protect farms.

With some exceptions, many components of 'Smart systems' are eligible · Smart systems can feature: Digital sensors, Data collection, Connectivity, Automated data analysis, Efficiency improvement. Any system, item, or equipment that is considered to be business as usual for a given farm type is ineligible under the program. Digital Sensors are electrical input instruments for measuring or monitoring conditions with the ability to transmit data to data logs or to other applications. They differ from analog sensors (i.e. non-electrical measurement devices that use physical components like dials). Data Collection refers to the logging and storage of measurements and conditions. Once collected, datasets can be analyzed to assist in decision making, often in real time. Connectivity allows various components within the smart system to communicate with each other. Connections may be hard-wired, or wirelessly, through Bluetooth, Wi-Fi, radio frequency, or cellular service. When systems utilize the internet for connectivity, they increase the potential for automation and digital intelligence capacity. Automated Data Analysis is what allows smart systems to make real time decisions and adjustments. Data collected by sensors is analyzed by a computer and new outputs are generated. Outputs could be recommendations, information for decision making, or automated action. · Agriculture-specific drones (e.g. Multispectral imaging drones; Thermal imaging drones) · Farm/Barn/Herd management software or apps - first year of subscription eligible (on-going subscription costs are ineligible) · Digitally connected weather stations (and first year subscription costs of weather station analysis software or apps) · ISOBUS Universal Terminals – for connecting to any ISOBUS-equipped implement, as an interface · ISOBUS Task Controllers – goes on the implement, stores settings, and sends info to the Universal Terminal

Electronic soil sensors. Electromagnetic: Salinity, organic matter, moisture data. Electrochemical: Nitrate, potassium, hydrogen ion (pH) data. Soil compaction sensors. Solar powered soil sensors.

Farm equipment-mounted sensors and cables: Vegetative index data, Grain protein, oil, starch content data. · Drone-mounted agriculture specific sensors & lenses (e.g., thermal imaging; multispectral imaging) · Sensor based fertilizer spreader components that optimize granule distribution · Yield sensors retrofitted onto equipment to gather real-time data for yield maps. Including hay bale · Weed detection and elimination systems.

Farm equipment-mounted data collection and data storage units for: · Accelerometers · Gyroscopes · Magnetometers · Altimeters · Remote monitoring cameras (i.e. remote monitoring for existing water sites

Internet Boosters – MAXIMUM \$2,000 GRANT

Electronic livestock ID readers that allow data collection for individuals animals · E.g. ID reader wands that are linked to weigh scales · E.g. Herd management handheld devices

Other sensors · Leaf wetness sensors · Bee hive temperature, humidity, audio and movement sensors · Livestock body movement and body temperature sensors

OPEN Activities which are not explicitly ineligible and which can be shown to meet or exceed the program goals.

Farm Security Eligible Expenses

- GPS Equipment Tags and Trackers
- Remote Monitoring for Fixed Cameras
- Remote Fuel Tank Monitors
- Wireless Base Stations (Gateways)
- Motion Detectors/Driveway Alert Systems
- Door Sensors



Environmental Farm Plans

The environment is becoming a more prominent issue. It is a large factor in marketing agriculture and food products in today's global markets. Consumers are demanding more transparency and are demanding high quality and safe products. Reputation of food safety is critical to retain and gain access to domestic and international markets.

Environmental Farm Plans (EFP) provide a tool for producers to self analyze their operation and identify environmental risks, current standards, areas for improvement and also highlight what they are doing well.

Having a completed EFP allows producers to access different funding opportunities, such as the Canadian Agricultural Partnerships Programs. It is also useful in product branding that demonstrates specific environmental standards.

The EFP Process

An EFP can be completed through workshops, online or one-on-one session(s). The EFP first identifies the soil and farm site characteristics. Following this, the producer completes only the relevant chapters that apply to their operation; such as wintering sites, fertilizer, pesticides, crop management etc.

Upon completion the EFP is submitted to a Technical Assistant for review. Once reviewed the EFP will be returned along with a letter of completion.

The EFP is a living document and should be reviewed and updated periodically.

If you wish to complete an EFP or have any questions regarding EFP please contact Kellie at the LARA office at 780-826-7260

Riparian Health Assessment

The riparian zone is the interface between the upland and a water course. A healthy riparian area: traps and stores sediment; builds and maintains banks and shorelines; stores water; recharges aquifers; filters and buffers water; creates primary production and much more! A riparian health assessment is a tool designed to evaluate the site and can provide a foundation to build an action plan and identify priorities. If you would like a FREE Riparian Health Assessment conducted on your property or more information please call Kellie at 780-826-7260 or email sustainag@laraonline.ca





Why I am glad I took Mental Health First Aid - By Elaine Froese

Recently I was saddened by the passing of 3 folks in the space of one week with whom I had a connection to. I suspect many of you are grieving losses experienced in the past 22 months during this Great Pause. I want you to explore some new learning and consider signing up for the virtual Mental Health First Aid course. It's easy to do, costs less than \$150, and will give you more confidence to have supportive conversations with your family, friends, and the neighbour down the road who needs a listening ear.

Many long-time readers of this column will recall that I am a post-partum depression survivor who spent a good chunk of 1984 in a psychiatric ward healing after 23 ECT treatments as I was drug resistant to therapy. I also have walked the mental health journey with many family members and friends over the past 37 years, yet I knew I needed a solid framework in 2021 to be supportive and courageous.

My instructor was Ashley Breland, a social worker from the University of Saskatchewan who is working on her MSW. Her energy, enthusiasm, and honest vulnerability of her own mental wellness journey gave all of us on the zoom training the permission to share parts of our own heavy stories briefly in our breakout groups. We learned to confirm the skills of approaching conversations, listening without judgment, and being careful to use the language of empathy, not sympathy.

A farm family coach hears many heavy stories as families approach me for ways to get traction on their transition planning and have smoother conversations. If you are a supportive person who gives and gives, you may be entering 2022 in a depleted state. Breland's training also emphasized the need for self-care when you are nurturing, and being a supportive listener to people who are struggling with mental health storms (everyday life), or the more complicated mental health disorders.

All of us go through storms, and 2021 was a doozy for weather stress, drought, price rallies, contract obligations, lockdowns, social isolation and many more. I would like you to consider investing 2 hours of your precious time in the pre-work for mental health first aid where you will learn the helpful language of reaching out to listen to others who have their own storms. Then you get to spend 6 hours in a day training with breaks to have insights into the difference between conversations that bring folks to making their own choices for further mental health care, and the conversations that stigmatize and are not helpful.

If you are full of heavy stories of folks around you managing depression, grieving a death by suicide, covid, or other losses, you really would benefit from training in mental health first aid. It is not your job to diagnose, it is your role to be a supportive listener, re-frame what the struggling person is saying, validate their feelings, and help them create options for their next steps. The course uses the acronym ALGEE as a reminder of the framework for powerful conversations and self-care. You'll have to take the course to learn more!

Many first-aid folks are also managing anxiety, yet they have meaningful purposeful jobs and are willing to continue to support others in getting tools and resources to have a better mental health journey.

I own a full spectrum light which was purchased years ago for \$200 from the Manitoba Mood disorder Association. (Google SAD lights or Happy lights) .I turn it on in the morning on my desk to create brightness in the darkness of fall and winter. It also comes in handy for zoom calls to light my face, as part of my mini studio for virtual learning.



Why I Am Glad I Took Mental Health First Aid - continued from previous page

I journal and have committed to do this as a daily practice for better self-care because of my training in mental health first aid. For many folks, writing down thoughts, feelings, and experiences helps them process what is going on in their brains. I unplug from my cell phone on Sundays and sometimes Saturdays. Getting off social media can be a brain stress reducer. Comparison can also be a joy stealer, so avoid your Instagram account and fast from it for a few days. See how you are feeling when you don't compare your current life to everyone you scroll online.

Cynthia Beck is a suicide intervention specialist who also farms south of Regina. She has given me permission to send folks her way who are dealing with suicide issues, and you might want to reach out to her if this is part of your story. Her number is 306-436-7354. Her email is shineon@cynthiabeck.ca.

Grainews featured a story on Beck on March 2, 2021.

Intervening early in the mental health journey can create better outcomes, so having the skills to listen well, approach properly, knows local resources, and reach out to help create solutions for the person struggling can be a real gamechanger in our rural communities. Many of you know CPR and first aid to stop bleeding. Take this Mental Health First Aid training to really make a difference to your family, friends, and neighbours. Fifty percent of people will develop mental illness in their lifetime, and ALL of us have mental health storms in the journey of life. I am curious if I have convinced you yet to sign up. I would like you to go to <https://www.mhfa.ca/en/course> and see which instructor appeals to you.

Let 2022 be the year you are compassionate, kind, and curious about the mental wellness of everyone you walk alongside. Know how to start conversations with "How are you really doing?" We are all human beings, and it is okay to ask others if they are okay. When we feel grounded and can handle things we are blessed with mental well-being. Use your well-being to be a safe person to listen to other farmers and families who are in storms, and possibly need a way to navigate heavier stories of a mental health disorder. You don't diagnose, you listen and provide first-aid to get the person to the next step of professional help. You can do this.

"Land is not merely soil, it is a fountain of energy flowing through a circuit of soils, plants and animals."

ALDO LEOPOLD





Local Food Economy = Security, Nutritious Food and Profitability

These past few years have shown how fragile the food system is. Relying greatly on food imports and transportation have highlighted the vulnerabilities as product shortages have left empty shelves. The crisis between Ukraine and Russia is tragic, and will have impacts on food scarcity, namely in some of the world's most impoverished nations.

When asked, many producers say that they grow commodities and not food. Albertans are excellent at growing many crops and livestock that will be exported, but what are we growing for ourselves?

Creating a thriving local food economy would benefit many, as with less transportation we would get fresher, and hopefully less expensive products. Many consumers would like to know where their food comes from and look to farmers markets, Alberta Imarket (<https://www.albertaimarket.com>), CSAs and directly to the farmer themselves.

Creating a local food economy requires the involvement of many, not just producers. It needs to include: government, educators, producers, consumers, value-added / processors, markets/vendors and many more.

Connect for Food (CFF) is an initiative developed with the purpose to identify and create opportunities for people and businesses with interest in the local food economy. We believe everyone connects with food and has ideas and experiences to share to contribute to a strong local food system.



In-Person
Connect
For Food
Workshop
April 13
Flat Lake
Hall
10 - 3

Developing Our Local Food Economy

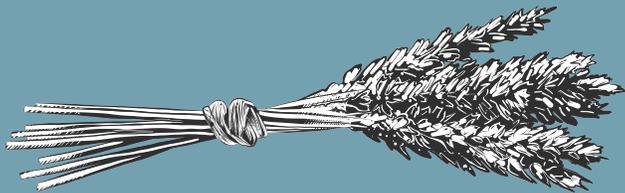
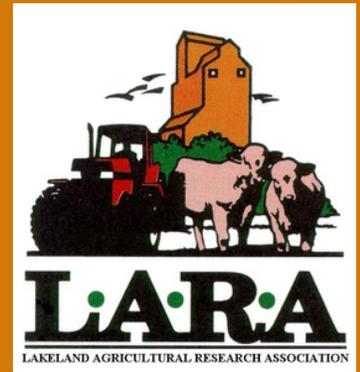
To Register: <https://www.eventbrite.ca/e/connect-for-food-tickets-300881413407>

Lakeland Agricultural Research Association

Kellie Nichiporik
Environmental Program Manager
E-mail: sustainag@laraonline.ca
Phone: 780-826-7260
Cell: 780-812-1036
Box 7068
Bonnyville, AB
T9N 2H4

Follow Us on Twitter! @LakelandARA
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Sustainable farming encompasses a wide range of practices and principles; combining environmental stewardship with profitability and ensuring that the family farm will be there for generations to come.



www.laraonline.ca

Have you missed a webinar that you really wanted to watch? Check out our YouTube page!

Upcoming Events

Fort Kent - July 21

Lac La Biche - July 27

St. Paul - August 4

Smoky Lake - August 11

Summer Field Days



Nicole Masters

APRIL 20TH AT 7 PM

INCREASING
PROFITABILITY THROUGH
SOIL HEALTH AND
REDUCED INPUTS

Making Microbes Work For You

To Register:

<https://bit.ly/3t7y1TV>