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THE VERDANT ELEMENT

Lakeland Agricultural Research Association

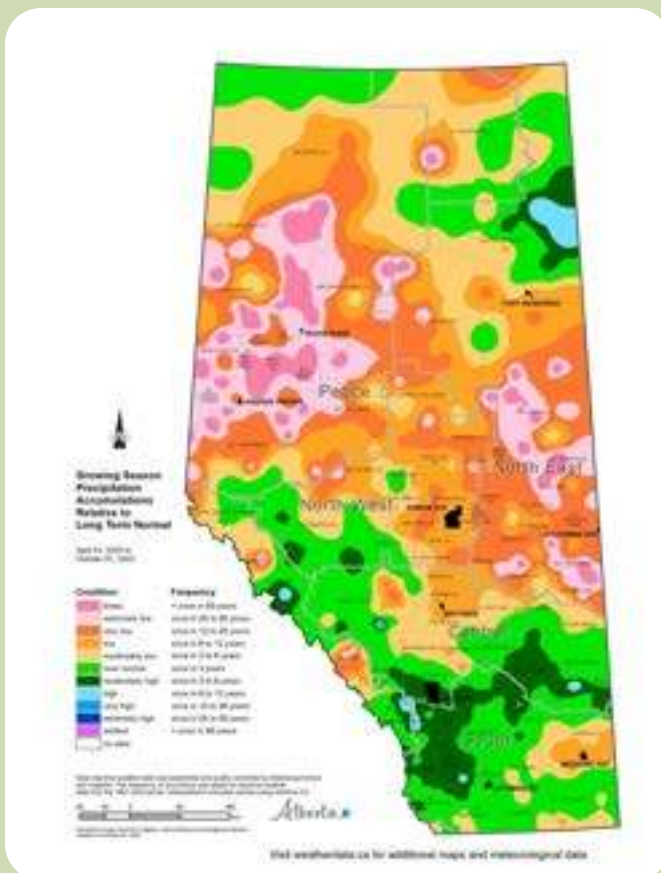
How Dry is it? Drought Conditions Across the LARA Region

For anyone who's spent time within the Lakeland Agricultural Research Association's (LARA) boundaries this season, the signs of drought have been unmistakable. Low rivers and lake levels, dry sloughs and dugouts that have dried tell a story that the data confirms.

According to precipitation accumulation maps from weatherdata.ca, which compare 2025's growing season to historical records from 1961 to 2024, the LARA region has experienced widespread moisture deficits. The maps depict precipitation accumulations relative to long-term normals—an important metric for understanding just how far current conditions have strayed from average.

Within LARA's region, Smoky Lake County saw the highest rainfall this growing season, though still below historic norms. Farther east, the MD of Bonnyville and the Country of St. Paul experienced some of the driest conditions in Alberta, with precipitation rated from extremely low to low compared to long-term averages.

The implications of these trends are clear: the Lakeland's ecosystems, farms, and rural communities are operating under mounting water stress. While no single management change can erase drought risk, producers and land managers can strengthen their resilience through thoughtful diversification—both in land use and business strategy.



Sources: <https://open.alberta.ca/publications/moisture-situation-update>

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THE VERDANT ELEMENT



LARA Fish Pond: Growing into a Living Classroom

Located on the Fort Kent Research Farm, just off the Iron Horse Trail, LARA's Fish Pond has long been a peaceful space where community members can connect with nature. Over the years, it's been home to countless educational events, field days, and family afternoons spent exploring the water's edge. This year, we've taken some exciting steps to enhance the site—transforming it into a true living classroom that supports hands-on learning about riparian health and watershed resiliency.

As part of our Watershed Resiliency and Restoration Program (WRRP), the Fish Pond now features several new demonstration elements designed to help producers and visitors alike better understand riparian management in action. These include a fenced area to illustrate proper livestock exclusion and protection of sensitive banks, as well as an example of a stream crossing—showing how thoughtful design can reduce erosion and maintain water quality.

Thank you to our Partners:





LARA Fish Pond

We've also incorporated LARA's "Try Before You Buy" equipment into the space, giving producers the chance to see practical management tools at work. Both the Razer Grazer and off-site watering system have been on display at the pond during extension programs, allowing visitors to explore how these tools can support healthy pastures while protecting riparian zones.

To enhance the ecological health of the area, we've also planted native riparian species around the pond. The trees were generously provided by LICA Environmental Stewards, with tree planting support from Strathcona Resources. These additions will help stabilize the shoreline, improve wildlife habitat, and demonstrate how riparian vegetation plays a key role in filtering runoff and maintaining clean water. Over time, these plantings will create more shade, biodiversity, and resilience within the pond ecosystem—further supporting our goal of making this site a thriving outdoor learning space.

To make the site more comfortable and functional for visitors, we've added new seating and an outhouse, allowing us to host classrooms, workshops, and community groups right at the water's edge. Whether it's a school field trip learning about aquatic insects, or a producer tour discussing riparian restoration, the pond now provides an accessible, educational, and welcoming space for all.

LARA's Fish Pond has always been a place to pause and reflect on the connections between land, water, and community. With these updates, it's evolving into something even more meaningful—a place where people can learn, share, and see firsthand how small actions on the landscape can add up to healthier watersheds for everyone.

Interested in trying our Solar waterer or razor grazer?

Call to book your **FREE** trial @780-826-7260



Local Innovators: Charlotte Lake Farms



From Cattle to Community: Diversifying with Agri-Tourism

It all started with an idea from the Open Farm Day committee. Each year, visitors ask about things to do in the fall and whether there's a local pumpkin patch—so Charlotte Lake Farms decided to give it a try. That simple idea planted the seed for what would become a thriving fall tradition.

At the time, the Charlotte Lake Farm was exploring long table dinners to promote their farm-to-table beef, but those plans faced many challenges brought on by COVID restrictions. With gatherings on hold and uncertainty in the air, Leona and her family decided to pivot and plant something new. “We thought, let's give pumpkins a try on a small scale and see how it goes,” she recalls. That modest experiment quickly grew into a community favourite. The Charlotte Lake pumpkin patch now draws families from across the region each fall.



Through thoughtful diversification, Charlotte Lake Farms has created a model for how farms can adapt and thrive in changing times. By blending their Farm to Table Beef production with education, recreation, and local engagement they've not only strengthened their own operation but also cultivated a deeper appreciation for the farming community as a whole.

Check out Charlotte Lake Farms at: <https://charlottelakefarms.ca/>



The Benefits of Mulching

Charlotte Lake Farms isn't just known for its fall festivities—it's gaining attention for how it grows its pumpkins. Leona & Guy Bonneau have taken a creative approach to soil management and plant care that keeps the patch thriving without irrigation or added fertilizer.

The pumpkins are started in a greenhouse and transplanted directly into industrial black landscape fabric laid across the patch. The fabric acts as a mulch, trapping moisture, suppressing weeds, and warming the soil in the spring to give seedlings an early start. As the pumpkin plants grow and their leaves spread, they provide natural shade, keeping the ground cooler during the warmer summer months. Small amounts of compost are added at planting to give each pumpkin a nutrient boost, but otherwise, the patch relies on natural rainfall and the moisture-retaining benefits of the fabric.

Over the years, Leona has noticed a remarkable difference in the soil. The original sections of the pumpkin patch, where the fabric has been in place for several seasons, feel softer underfoot—likely a result of consistent moisture retention. In contrast, newer areas converted for pumpkin production feel much harder, demonstrating how this simple innovation improves soil structure over time.

This combination of greenhouse starts, black landscape fabric, and careful soil management allows Charlotte Lake Farms to grow a productive pumpkin patch while using minimal inputs. It's a practical example of how thoughtful innovation can benefit both the land and the harvest, all while creating an inviting space for visitors to connect with the farm.



**One of the
key
principles of
Soil
Regeneration
Management
is keep soil
covered**



JUNIOR GARDENERS PROGRAM



Growing Curiosity, one class at a time.

Each spring, the Lakeland Agricultural Research Association welcomes Grade 6 classrooms to roll up their sleeves and dig into the science of growing at our Fort Kent Research Farm. Through our Junior Gardeners Program, students spend a day learning hands-on lessons about plant growth, soil health, and the natural systems that sustain us—all while helping us plant our gardens for the season.

Our farm offers a unique outdoor classroom where students can explore three distinct growing environments: the greenhouse, the no-till garden, and the tilled garden. Each space provides a living example of how soil management choices influence plant growth and environmental impact. Students learn about the benefits of greenhouse growing, such as season extension and climate control, while also discovering the trade-offs like energy use and pest management. Out in the field, they compare soil structure, moisture retention, and biodiversity between tilled and no-till systems—seeing firsthand how different approaches affect plant roots and soil life.

Cost of Booking: Thanks to Support from our Municipal Partners – The MD of Bonnyville, County of St. Paul, and Smoky Lake County, and West Coast Seeds, the program is FREE for all schools within our area!

Contact:

Kristy Tetreau
Environment & Education Coordinator
Lakeland Agricultural Research Association
kristy@laraonline.ca
780-573-6076

Book your class for the Junior Gardeners Program today!

Horticulture Program

Our horticulture program is built around three complementary growing environments, each offering hands-on opportunities to explore how different management approaches affect soil health, plant growth, and overall productivity.

1. The Greenhouse – a controlled environment where we focus on season extension, companion planting, and integrated pest management. Participants can observe how diversity, temperature, and spacing influence plant health and pest dynamics.
2. The Traditional Tilled Garden – where we explore conventional soil preparation, aeration, and weed control, comparing the short-term benefits of tillage with its long-term impacts on soil structure and moisture retention.
3. The No-Till Garden – which demonstrates regenerative practices through minimal soil disturbance, mulching, and maintaining living roots. This approach highlights how building organic matter and conserving soil structure can improve resilience to drought and erosion.

Together, these three growing systems provide a living classroom for understanding how soil management choices shape the productivity and sustainability of our local food systems.



Seeds donated by the Community Roots Program at:



West Coast Seeds

Upcoming Events



LARA
LAKELAND AGRICULTURAL RESEARCH ASSOCIATION

RANCHING for PROFIT

WORKSHOP

SAVE the DATE

FRIDAY DECEMBER 5, 2025

**UKRAINIAN NATIONAL HALL
SMOKY LAKE**

RDAR
Research Driven Agriculture Research

Smoky Lake
COUNTY

MUNICIPAL DISTRICT
BONNYVILLE SS. 37



LARA
LAKELAND AGRICULTURAL RESEARCH ASSOCIATION

WOMEN IN RANCHING WORKSHOP

Join us for a day of learning, connection and practical insight for women who balance the grit, adaptability and know-how that ranching demands.

\$20 FOR MEMBERS, \$40 FOR NON

15 JAN 2026

REGISTRATION 8:30 AM
PRESENTATIONS 9:00 AM - 4:00 PM
TRADESHOW 8:30 AM - 4:00 PM

BONNYVILLE CENTENNIAL CENTRE

Visit our website to get more information
• WWW.LARAONLINE.CA

THANK YOU TO OUR EVENT SPONSORS:

AFSC **Lakeland**
CREDIT UNION

COWS & FISH **UNIVERSITY OF CALGARY**
FACULTY OF VETERINARY MEDICINE



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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.