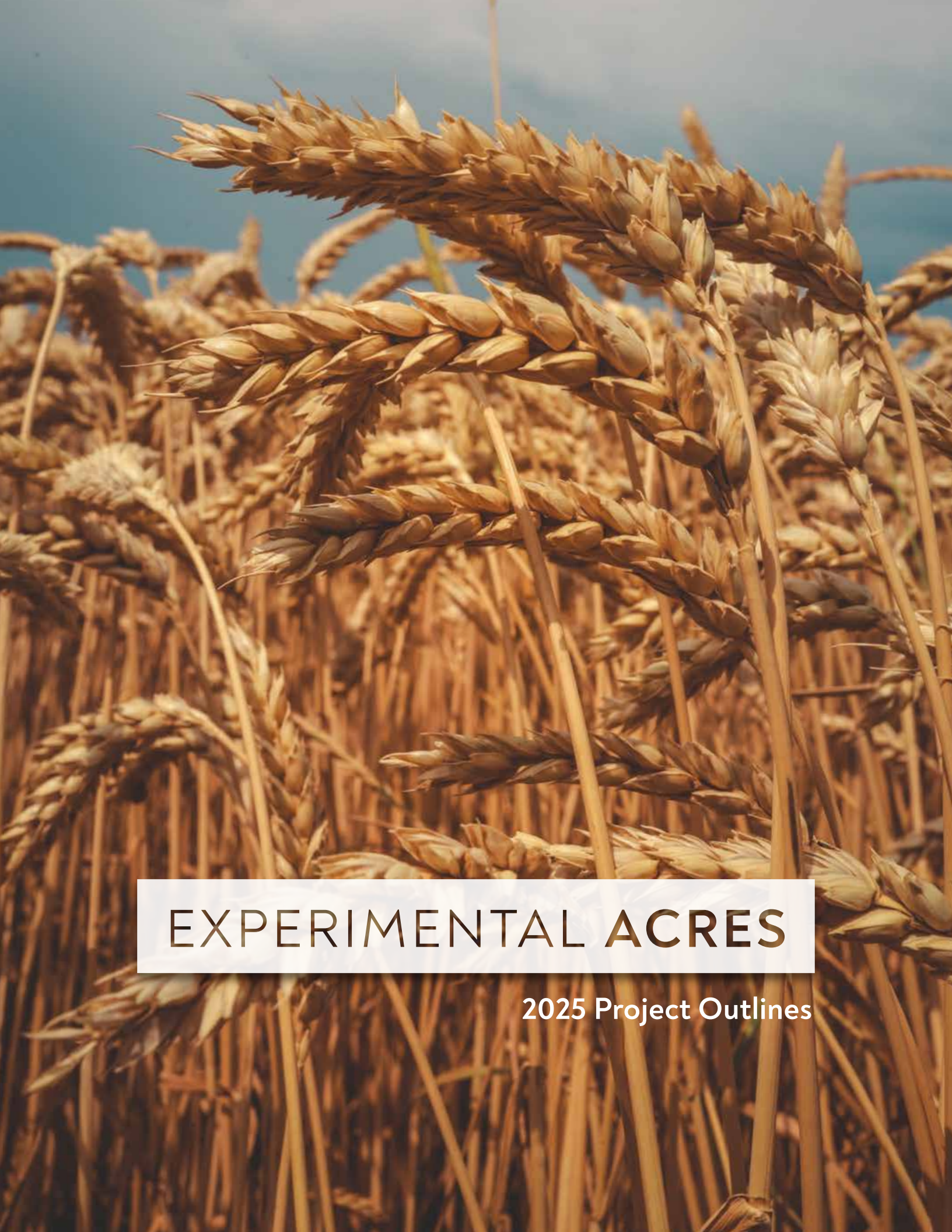

EXPERIMENTAL ACRES

2025 Project Outlines

EXPERIMENTAL ACRES

2025 Project Outlines

Ferrier's Farm Stand 4

River Run Farm, Lauren Fitzgerald 5

Austin Bruch 6

The Barrel House, Pete Bradford 7

Arisswood Farm 8

Doug Mitchell 9

Turtle Island Acres, Dale Hamilton 10

Coyote Song Farm & Forest 11

Crieff Hills 12

Gardner's Gardens and Goats 13

Porter Bros Livestock 14

Shawna Percy 15

CROP/
PLANTING

Ferrier's Farm Stand

Reducing in-field pumpkin waste using winter rye

SUMMARY:

Pumpkin production often relies on repeated tillage and multiple crop protection passes, which can increase costs and contribute to soil erosion. Laura and James Ferrier tested whether a no-till system could reduce these inputs while also lowering in-field pumpkin losses.

For the past six years, the Ferriers have grown pumpkins in rotation with cash crops. For this project, they no-till planted pumpkins directly into crimped winter rye, which typically forms a mulch layer that pumpkins can grow into, helping protect the soil surface and suppress weeds. Rye is also known to release allelopathic compounds that can inhibit the growth of certain weed species. Together, these effects were expected to reduce weed pressure, limit soil disturbance, and decrease pumpkin rot caused by soil contact.

Winter rye was established in fall 2024. Pumpkin planting and monitoring took place from April 2025 through late October 2025.

EVALUATION METHODS

- Updated soil tests (basic fertility and organic matter)
- Regular scouting for weeds and signs of pest damage
- Estimates of in-field pumpkin waste, compared to 2024

SIZE OF TEST AREA

1-2 acres

TESTING

- Soil sampling (basic fertility, organic matter)
- Simple economic analysis

KEY QUESTIONS

- Can pumpkins be successfully established without tillage in this system?
- Does crimped winter rye reduce weed pressure and in-field pumpkin rot?

REFLECTIONS

Pumpkin rot and weed pressure were both lower in 2025 compared to previous years. However, the season was significantly drier than recent summers, which likely influenced these results. The rye mulch broke down by mid-summer, reducing its weed-suppressive effect later in the season. Increasing the rye seeding rate in future plantings may help maintain ground cover and extend weed suppression through the growing season.

CROP/
PLANTING

River Run Farm, Lauren Fitzgerald

Trial of a deep composting system to reduce weed pressure and improve soil health

SUMMARY:

Tested whether a deep composting system could reduce weed pressure and improve soil performance in a market garden. Deep composting involves applying a thick layer of compost to garden beds to suppress weeds, supply nutrients, and improve water retention. The trial compared beds receiving 4–6 inches of compost with beds receiving a standard 1-inch application. Yield, weed pressure, and nutrient content were monitored in three crops: salad mix, carrots, and a brassica. The project also examined whether reduced weeding time could offset the added cost and labour required.
The project ran from April 2025 through late October 2025.

EVALUATION METHODS

- Soil tests (basic fertility and organic matter)
- Plant tissue testing at harvest
- Monitoring weed pressure throughout the growing season
- Comparison of labour required versus weed management versus additional compost inputs

REFLECTIONS

Deep composting provided effective weed suppression for certain crops. However, it also increased labour at harvest, particularly for leafy greens, where extra compost made picking and washing more time-consuming. No consistent differences were observed in crop nutrient content between deep-composted beds and standard beds. While deep composting may be a useful tool in specific situations or on a rotational basis, the system is labour-intensive to establish and may not be practical for annual use across the entire market garden.

SIZE OF TEST AREA

20 beds,
30” x 50’

TESTING

- Soil sampling (basic fertility, organic matter)
- Monitoring weed pressure
- Economic tracking of labour costs for weeding vs additional compost

KEY QUESTIONS

- Can deep composting reduce weed pressure in a market garden system?
- Does deep composting affect the nutritional profile of harvested crops?
- Are the labour and material costs of deep composting offset by management benefits?

CROP/
PLANTING

Austin Bruch

Comparing yield of winter oats with staggered fall planting dates

SUMMARY:

Austin Bruch evaluated winter oats as a fall-planted cereal crop in Ontario, with a focus on identifying optimal planting dates and assessing winter survival. Winter oats are relatively new to the region, and limited local data exists on how planting timing affects stand establishment, nutrient uptake, and yield.
In fall 2024, winter oats were planted on staggered dates across a small test area. Throughout the 2025 growing season, crop development and nutrient status were monitored at key growth stages. Yield and grain quality data were collected at harvest to compare performance across planting dates and against other winter cereal crops grown in the region.
The project ran from fall 2024 through harvest in summer 2025.

EVALUATION METHODS

- Plant tissue testing at late April and flag leaf stages
- Grain quality analysis at harvest
- Yield measurement
- Soil testing as needed

REFLECTIONS

Growing conditions were favourable for winter cereals overall, though lodging occurred in some plots. No notable differences were observed in soil test results. A detailed report comparing yields across planting dates and varieties will be completed in late fall.

SIZE OF TEST AREA

0.05 acre

TESTING

- Tissue sampling (late April and flag leaf)
- Grain analysis (~August)
- Yield
- Additional analyses as needed

KEY QUESTIONS

- What is the ideal fall planting date for winter oats in this region?
- Is the yield of winter oats comparable to other winter cereals grown locally?

CROP/
PLANTING

The Barrel House, Pete Bradford

Comparing different growing styles of saskatoon berries in Ontario

SUMMARY:

The Barrel House explored the feasibility of growing saskatoon berries in Wellington County. Saskatoon berries are native to western Canada but remain uncommon in southern Ontario, and little local information exists on establishment methods or pest pressure.
In this project, approximately 50 saskatoon berry plants were transplanted into a one-acre organic field and grown using three different approaches: trellised (like grape production), left to grow naturally, and protected with netting. Weed management relied on spacing plants to allow for annual tillage passes. Pest pressure from insects, birds, and mammals was monitored throughout the season. Baseline soil testing was completed prior to planting, and yields were recorded as plants matured. Harvested berries were incorporated into baked goods sold at The Barrel House, and project updates were shared with customers through the farm's retail space.
The project ran from April 2025 through late October 2025.

EVALUATION METHODS

- Baseline soil testing (basic fertility and organic matter)
- Monitoring pest pressure and weed emergence
- Yield tracking

SIZE OF TEST AREA

1 acre

TESTING

- Soil sampling (basic fertility, organic matter)
- Simple economic analysis

KEY QUESTIONS

- What is the most effective way to establish saskatoon berries in Wellington County?
- What pest pressures affect saskatoon berry production in this region?

REFLECTIONS

Establishment was challenging due to drought conditions during the growing season. Pest pressure was minimal, and no clear advantage was observed among the establishment methods tested. Improved irrigation will be necessary for future trials. With infrastructure now in place, the producers are considering a similar trial with hops in 2026.

CROP/
PLANTING

Arisswood Farm

Acidifying soil for blueberry production

SUMMARY:

Arisswood Farm tested whether blueberries could be successfully grown on their soil type by lowering soil pH to meet crop requirements. Blueberries thrive in acidic soils (pH 4.5–5.0), while soils in southern Ontario are typically more alkaline.
In this project, sulfur, peat moss, and a combination of both were applied to acidify the soil prior to planting blueberries across a quarter-acre test area. Soil tests were conducted to track changes in pH and nutrient availability and were compared to historical results from 2020. Because blueberry plants take several years to reach full production, success will be evaluated over multiple seasons based on plant health and eventual marketable yield.
The project ran from May 2025 through late October 2025.

EVALUATION METHODS

- Soil testing (pH, micro- and macronutrients)
- Tracking plant establishment and yield over time

REFLECTIONS

Soil amendments were applied and plants were established in 2025. Additional growing seasons will be required to determine long-term plant performance and yield outcomes.

SIZE OF TEST AREA

0.25 acre

TESTING

- Soil tests
- Yield

KEY QUESTIONS

- Can blueberries be successfully grown on this soil type?
- Which soil amendment is most effective at lowering soil pH?

ANIMAL/
GRAZING

Doug Mitchell

Diverting food waste to livestock

SUMMARY:

Doug Mitchell of Black Dog Acres tested a system to divert food waste from landfill into livestock feed for pigs. The goal was to reduce methane emissions from food waste decomposition while producing food from materials that would otherwise be discarded. Doug partnered with local businesses and non-profits to source organic food waste and trialed different methods of processing the material for on-farm feeding. Feed quality was tested, and the quantity of food waste diverted from landfill was tracked. The project also explored the logistical and nutritional challenges associated with feeding non-traditional diets to livestock. The project ran from May 2025 through late October 2025.

EVALUATION METHODS

- Feed quality testing
- Measurement of food waste diverted to livestock feed
- Consultation with a livestock nutritionist

REFLECTIONS

Food waste diversion created multiple benefits, including the donation of a large quantity of meat to local food banks. However, feeding pigs on food waste proved more complex than anticipated. Nutritional guidance prioritized rapid growth using conventional feeds, which conflicted with the project's goals. Equipment limitations and periods of excess food supply also presented challenges. Slower growth rates may be acceptable in future trials if animal health and welfare can be maintained.

SIZE OF TEST AREA

3 Pigs

TESTING

- Feed quality
- Amount of food diverted

KEY QUESTIONS

- What preparation methods make food waste suitable for livestock consumption?
- Does food waste meet pigs' nutritional needs?
- How could this system be scaled to larger operations?

ANIMAL/
GRAZING

Turtle Island Acres, Dale Hamilton

No till potato planting, Beetle Berm establishment

Dale Hamilton of Turtle Island Acres tested two complementary approaches to reduce tillage and pest pressure in vegetable production: no-till potato planting and the establishment of a beetle berm to support beneficial insects.
Potatoes were planted without tillage across half an acre using heavy mulch to create a suitable growing environment. In parallel, a beetle berm was established using a local seed mix designed to attract predatory insects that can help manage crop pests naturally. Baseline soil testing was completed, and potato yield and quality were monitored alongside insect activity and berm establishment. The project ran from May 2025 through late October 2025.

EVALUATION METHODS

- Soil testing (basic fertility and organic matter)
- Monitoring potato yield and quality (including greening)
- Observations of beetle berm establishment and insect activity

REFLECTIONS

Potato production was unsuccessful due to early-season pest predation, highlighting the need for additional protection strategies in no-till systems. Further monitoring is needed to assess long-term beetle berm establishment.

SIZE OF TEST AREA

0.5 Acre

TESTING

- Soil sampling (basic fertility, organic matter)
- Yield
- Potato quality (greening)

KEY QUESTIONS

- What methods are most effective for growing potatoes without tillage?
- How long does it take for a beetle berm to establish and attract beneficial insects?

CROP/
PLANTING

Coyote Song Farm & Forest

Comparing weed suppression between wool mats and landscape fabric

Liz Guerrier of Coyote Song Farm & Forest compared waste wool mats with plastic landscape fabric as weed suppression tools in a market garden. Both materials block light while allowing water and air movement.
Plastic landscape fabric is commonly used but is petroleum-based and may contribute microplastics as it degrades. Waste wool mats are a biodegradable alternative made from agricultural byproducts.
Weed pressure was monitored in beds covered with wool mats, landscape fabric, and no cover throughout the growing season.
The project ran from May 2025 through late October 2025.

EVALUATION METHODS

- Soil testing (basic fertility and organic matter)
- Monitoring weed emergence across treatments

REFLECTIONS

Weeds emerged through the wool mats and were more difficult to remove without damaging the material. Loose, unprocessed wool performed better than the mats, as it conformed more closely to the soil surface and limited space for weed establishment.
Plastic landscape fabric remained the most effective option for weed control.

SIZE OF TEST AREA

N/A

TESTING

- Soil sampling (basic fertility, organic matter)
- Monitoring weed pressure

KEY QUESTIONS

- How quickly do wool mats break down over a growing season?
- Are wool mats as effective as landscape fabric for weed suppression?

ANIMAL/
GRAZING

Crieff Hills

Pasture restoration through rotational grazing

Crieff Hills Farm Manager Ryan Hayhurst is restoring a degraded 10-acre pasture using rotational grazing and reseeding. Over time, the pasture had fallen out of production, with invasive species such as buckthorn becoming established.

The project compared two rotational grazing systems operating in parallel: cattle on one half of the pasture, and sheep and pigs on the other. Following grazing disturbance, a pasture seed mix was applied to encourage regrowth. Soil sampling was conducted across the pasture and other areas of the farm to track changes in soil health.

The project ran from May 2025 through late October 2025.

EVALUATION METHODS

- Soil testing (basic fertility and organic matter)
- Monitoring pasture regrowth and species composition
- Documentation of grazing rotations

REFLECTIONS

Project updates not available at the time of publication.

SIZE OF TEST AREA

10 Acres

TESTING

- Soil sampling (basic fertility, organic matter)
- Pasture regrowth

KEY QUESTIONS

- Does pasture re-establish differently under each livestock system?
- How do management requirements differ between systems?
- How does livestock type influence pasture recovery?

CROP/
PLANTING

Gardner's Gardens and Goats

Determining the nutritional value of sunflower balage

Gardner's Gardens and Goats evaluated the nutritional value of sunflower baleage as a potential feed source for sheep. Sunflowers are grown annually for agrotourism and baled after the season, but their feed value had not previously been assessed.
In 2025, sunflowers were planted across four acres with an interseeded cover crop intended to improve weed management and contribute to feed quality. Soil testing was completed prior to planting, and baleage samples were submitted for feed analysis at the end of the season. A feed consultant was engaged to assess whether the baleage could meet sheep nutritional needs during gestation and lambing.
The project ran from spring through fall 2025.

EVALUATION METHODS

- Soil testing (basic fertility and organic matter)
- Feed quality analysis of sunflower baleage
- Consultation with a feed nutritionist

REFLECTIONS

Sunflower establishment was difficult, and the cover crop did not provide effective early-season weed control. Weed pressure remained high throughout the season. The producer plans to adjust the establishment strategy in future trials and continue testing baleage nutritional content.

SIZE OF TEST AREA

4 acres

TESTING

- Soil sampling (basic fertility, organic matter)
- Feed quality analyses

KEY QUESTIONS

- What is the nutritional value of sunflower baleage?
- Can interseeded cover crops improve baleage quality?

ANIMAL/
GRAZING

Porter Bros Livestock

Implementing the rotational grazing of sheep

Adam Porter of Porter Bros Livestock expanded a rotational grazing system for sheep across 140 acres. After a successful trial in 2024, the project aims to improve pasture utilization, soil health, and operational efficiency.
Fields included in the project have varied management histories, including cash cropping, grazing, and intensive grazing with winter bale grazing. Funding supported the purchase of fencing, water infrastructure, and forage seed. Soil samples were collected across different management zones, and animal health and operational costs were monitored.
The project ran through the 2025 grazing season.

EVALUATION METHODS

- Soil testing across management zones
- Tracking operational costs and animal health indicators

REFLECTIONS

Project updates not available at the time of publication.

SIZE OF TEST AREA

~140 Acres

TESTING

- Soil sampling (basic fertility, organic matter)
- Operational Costs

KEY QUESTIONS

- How does rotational grazing affect soil health in sheep systems?
- Are there economic benefits to rotational grazing?
- How does rotational grazing influence overall farm efficiency?

INNOVATION

Shawna Percy

Construction of swale to mitigate drainage issues

Shawna Percy addressed drainage challenges on her property through the construction of a swale designed to redirect and slow surface water movement. Drainage issues were identified during geothermal installation in 2024, including a high water table and poor infiltration.

The swale was designed to move water toward a designated infiltration area. Soil imported for construction followed provincial excess soil movement regulations. Baseline soil testing was conducted across the property to assess fertility, microbial activity, and texture.

The project ran from April 2025 through late October 2025, with swale construction beginning in spring.

EVALUATION METHODS

- Soil fertility testing
- Solvita CO_2 burst test (microbial respiration)
- Soil texture analysis
- Observation of drainage indicators such as ponding and plant stress

REFLECTIONS

Water issues persisted early in the growing season, indicating that additional time or complementary drainage strategies may be required.

SIZE OF TEST AREA

~0.25 acres

TESTING

- Soil sampling (basic fertility, organic matter)

KEY QUESTIONS

- Does the swale improve drainage and water movement on the site?
- How does soil condition vary across the property?

Alternate formats available upon request