

Bishop's University Educational Farm: Protocol for Submitting Project Proposals

(September 2021)

1. Purpose of this Document

- This document, prepared by the University's **Farm Management Committee (FMC)** (Dr. Darren Bardati, chair), provides guidance to faculty, students, and any other individuals or groups (both internal and external) who wish to pursue a project or activity to be hosted at the Bishop's University Educational Farm.
- Anyone wishing to conduct a project or activity at the Educational Farm (hereafter called "applicants") must submit a written application of their proposal (details below). Applicants should carefully read this document before submitting a project proposal.
- Applicants are encouraged to peruse the Master Plan for the Educational Farm in preparing their submission¹.
- Applicants should submit a new application if the vision or methodology of the project changes significantly.
- The Educational Farm represents a dynamic ecosystem, with many interconnected and interdependent parts. Therefore, before introducing any new project at the Farm, careful thought must be employed to understand possible interactions and implications, and to avoid unintended consequences to projects already being supported.
- Before approval, all applications will be reviewed and assessed by the FMC for compliance with the **vision**, **priorities**, and **agricultural values and approach** of the Educational Farm (outlined in sections 2-4, below).

2. Vision of the Educational Farm

As defined in the Master Plan document:

The Educational Farm is a living land laboratory whose purpose is to instill passion for learning, drive agro-ecological science forward, and foster transformational change towards resilience and sustainability in our food system.

¹ See the Master Plan for the Educational Farm here: https://www.ubishops.ca/wp-content/uploads/201020_UB-DocMasterplan-v6.pdf

3. Farm Priorities

The Educational Farm is a primary teaching and research resource for the Department of Environment and Geography's programs in **Sustainable Agriculture and Food Systems (SAFS)**.

The Farm's priorities, by order of importance, are:

Education – The Educational Farm is a laboratory for field teaching, experiential learning, and exploration. Students will be trained in ecological agriculture, permaculture design, market gardening, organic fruit production, animal husbandry, agroforestry, and other systems, while nurturing a transdisciplinary, systems-thinking perspective.

Research – The Educational Farm provides space for exploring and experimenting with solutions to agricultural and food systems challenges. It will serve as a platform for a variety of participatory projects. Primary goals include improving organic crop varieties and ecological farming techniques for cold-climate growing conditions, as well as measuring and monitoring climate, soil health, and biodiversity. Projects addressing ecology, digital agriculture, alternative agri-products, and other fields could be welcome.

Community Outreach – The Educational Farm will connect community members of all ages with the food they eat, and nature. It will host "Farm Day" events that are open to the public, alumni events, and community workshops on a variety of topics (*e.g.*, seed saving, no-till gardening, soil building, carbon sequestration, role of pollinators, mob grazing of animals, food transformation techniques). These activities must reflect favourably on the University and are meant to build the University's reputation, and to enhance its connectedness to the broader Estrie region.

4. Agricultural Values and Approach of the Farm

- At Bishop's University, we value **agroecology and regenerative agriculture**. The farm focuses on building and maintaining living soil, sequestering carbon, utilizing preventative pest and weed management strategies, and fostering the health and resilience of the entire agroecosystem.
- We value **permaculture design principles**. Students will learn how to design food production spaces (*e.g.*, farms, urban lots, schoolyards, hospital grounds, municipal parks, etc.) that mimic the patterns and relationships found in nature, and which are deeply rooted in the place in which they occur.
- We value **organic growing practices**. We commit to avoiding the use of synthetic herbicides, pesticides, and fertilizers. We recognize that healthy soil, integrated weed and pest management techniques, observation, and preventative measures are critical to maintaining efficient production and high yields.

- We value **biodiversity**. This includes organisms both within and surrounding agricultural activities. Rather than focusing on specialized production, we promote polycultures, crop rotations, and diversified production with integrated systems. We commit to supporting pollinators and other wildlife with conservation of natural areas, pollinator gardens, and maintaining native perennials throughout the landscape.
- We value **the “closed-loop” approach**. The farm will strive for self-sufficiency and minimal reliance on external inputs. We aim to produce resource needs internally and eliminate waste. For example, we plan to utilize food scraps from the Bishop’s cafeteria to create our own compost, to incorporate animal manure for soil fertility, and to grow diverse and nutrient-dense pastures to avoid or reduce the need for purchased animal feed and supplements.
- We value a **human-scale approach**. The farm will consist of intensive plantings on only a few acres, avoiding vast fields of monocultures. Students will work with wheelbarrows, hand-operated tools and small two-wheeled walking tractors.
- We value **appropriate technologies** that facilitate sustainable agriculture and reduce the farm’s ecological footprint. For example, we plan to use geothermally heated greenhouses, solar-powered lightweight electric net fencing, drone-driven remote sensing of soil and plant conditions, etc.

5. Farm Resource Limits and Restrictions

The Educational Farm has limited resources. These resources must be organized, utilized and shared wisely to properly support the prosperity of priority projects. Well planned, organized, and properly resourced activities, and consideration of farm restrictions, will lead to a successful outcome, in line with the vision of the Farm.

The following resource limits and restrictions must be taken into consideration in project proposals:

- **Access to the Farm** – The Farm gates are locked outside of the Farm Technician’s work hours. Unauthorized visitation to the farm is not allowed. Project-related access must be outlined in the application form, and if approved, discussed with the Farm Technician. Any other visitors must make an appointment with the Farm Technician (farmtech@ubishops.ca).
- **Livestock** – The Farm is currently building phases 1 and 2 of its Master Plan and is unable to host livestock or projects involving agricultural animals. Facilities and certification for animal husbandry activities are part of phase 3, to come in subsequent years.

- **Water** – The Farm’s access to water is limited to what is available from a single, low-yield well, plus a seasonal surface spring. Plans are underway to eventually build a large irrigation pond, with surface run-off capture.
- **Space** – The Farm currently has about 3 hectares of field enclosed by 8-ft deer fencing, with suitable drainage and sun exposure for vegetable, orchard, and berry production. Additional fields are planned for the future.
- **Equipment** – The Farm favours human-scale work with wheelbarrows, hand-held tools, and small, two-wheeled tractors. The use of any and all farm equipment will be under the supervision and authority of the Farm Technician. Equipment use by farm participants (students, faculty and others) is subject to workplace health and safety guidelines and protocols. Non-SAFS-related project applicants will need to provide their own equipment (see question 5 in the application). With special permission, applicants may be permitted to use farm equipment. However, equipment use will be prioritized for projects related to the SAFS programs. Applicants must agree to replace any damaged equipment.
- **Workplace health and safety, as well as food safety laws, protocols and guidelines** – To be added later.
- **Labour** – Maintenance and related expenses of the proposed project are the responsibility of those submitting the project, unless otherwise agreed upon.
- **Inputs** – Practices should abide by certified organic standards². The use of synthetic pesticides and fertilizers is prohibited. Compost should also be pesticide free.
- **Plants** – We save seeds and take care to prevent cross-pollination, and invasiveness of certain crop varieties. New plant varieties introduced at the farm must be carefully considered with this in mind.

6. Application Process

Click here for the online application form: <https://forms.office.com/r/jvJGxiN31r>

The application must be submitted in advance of the planned start date. Projects involving new plantings must be submitted by **January 5** of the planting year, preferably earlier. Deadlines for other types of projects are flexible, but please allow a minimum of two months for the FMC to consider the application. After an application is submitted, the FMC may request further information from the applicant.

² Canadian organic standards can be found here: <https://inspection.canada.ca/organic-products/standards/eng/1300368619837/1300368673172>

If there are any questions during the preparation of the application, please contact the chair of the FMC, Dr. Darren Bardati (dbardati@ubishops.ca).

The proposal must include:

1. Project title
2. Name, email and phone number of applicants
3. List of project participants (if not already included in Question 2)
4. Project description, including how it is in line with the **vision, priorities, and agricultural values and approach** of the Educational Farm. Include a timeline.
5. Equipment list (e.g., shovels, wheelbarrows, tractors, post-hole digger, etc.). What would the applicant like to borrow from the Farm and what will be provided by the applicant? Include an acquisition plan for all necessary equipment (e.g., cost, who will fund it?, who will order it?, who will maintain it?, where will it be stored?, etc.).
6. Consumables/inputs list (e.g., seeds, plants, potting soil, pots, mulch, compost, row covers, etc.). Include an acquisition plan.
7. SPACE (e.g., fields, gardens, buildings, gazebo, pond, trails, sugar bush, etc.):
 - a. If applicable, what is the total area of land needed?
 - b. Will any of the farm buildings be used? Which ones and for what purpose? How much space and when?
8. LABOUR / ACCESS:
 - a. Who will perform the labour (e.g., soil preparation, planting, watering, weeding, pest control, harvesting, processing, clean-up, etc.)?
 - b. When will labourers require site access?
 - c. Who will be supervising the activity?
 - d. Any other considerations?
9. PLANTS (if applicable):
 - a. What plants are you proposing to grow, and for what purpose?
 - b. Where are the plants/seeds being obtained from?
 - c. Are the plants invasive?
 - d. What are the pollination/cross-pollination characteristics?
 - e. What are the disease vulnerabilities – viral, bacterial, fungal?
 - f. What is the lifespan of the plants?
 - g. Are there known animal/human toxicities due to the plants?
 - h. Any other considerations?
10. WATER (if applicable):
 - a. Is irrigation required?
 - b. If yes, what are the water requirements (volumes and frequencies)?
 - c. Considering the limitations mentioned in the protocol, what practices will you do to conserve water?
 - d. Any other considerations?
11. PEST CONTROL (if applicable):
 - a. Are there any anticipated pests?

- b. Will any pest control measures be employed (e.g., row covers, bird netting, electric fencing, other methods)?
 - c. Who will implement these control measures and provide the necessary equipment?
 - d. Any other considerations?
12. PROJECT COMPLETION (if applicable):
- a. How will the harvest be used/disbursed?
 - b. How will any project waste be disposed of?
 - c. What actions will be carried out at the end of the project to return the site to its initial state?
13. CARBON FOOTPRINT / ENVIRONMENTAL IMPACT: What considerations have been made with regards to minimizing the carbon footprint and/or environmental impact of this project?
14. Additional considerations (if applicable)?

7. Further Contextual Information

- The Educational Farm is accessed by an internal campus road (bike/pedestrian path) beginning behind Patterson Hall, or at street address, 3075 Chemin Glenday.
- The house on the property is a leased, private residence. The yard, garages, surrounding pasture, horse enclosure, the horses and their shelter are the property of the lessees. These are strictly off-limits to ALL students, faculty, and visitors at the Educational Farm.
- Farm visitors and project participants may park in the parking area provided within the gates of the fenced enclosure to the south of the house. However, all participants are encouraged to arrive at the farm via the bike/pedestrian path when possible. The Farm's gates are only open when the Farm Technician (or other authorized Bishop's employee) is present.

The Educational Farm sits on the unceded traditional lands of the Abenaki People, members of the Wabanaki Confederacy.