

## Sustainability Projects Fund Application

### Contact Information:

Name: Mike Bleho

Email: [Michael.bleho@mcgill.ca](mailto:Michael.bleho@mcgill.ca)

Project Title: **McGill feeding McGill 4**

Budget requested: **23,492\$**

Project group: Please include the names and contact information of all group members.

Mike Bleho: [michael.bleho@mcgill.ca](mailto:michael.bleho@mcgill.ca)

Oliver de Volpi: [oliver.devolpi@mcgill.ca](mailto:oliver.devolpi@mcgill.ca)

Dr. Philippe Seguin: [philippe.seguin@mcgill.ca](mailto:philippe.seguin@mcgill.ca)

Dr. Katrine Stewart: [katrine.stewart@mcgill.ca](mailto:katrine.stewart@mcgill.ca)

David Wees: [david.wees@mcgill.ca](mailto:david.wees@mcgill.ca)

Dr. Valerie Gravel: [valerie.gravel@mcgill.ca](mailto:valerie.gravel@mcgill.ca)

## **Project overview**

Project summary:

To provide locally grown fruits and vegetables from the Macdonald Campus's Horticultural Research Center to McGill University's Food and Dining services operated residences and the general student community.

Project eligibility:

McGill University houses and feeds thousands of students on a yearly basis in its various residences downtown. The Macdonald Campus's Horticultural Center specializes in the growing of fruits and vegetables and is thereby well suited to provide these food items to the University's Food and Dining Services Department. The use of locally grown food will directly contribute to the sustainability of food services in our community. In addition the use of food grown in our community will contribute in reducing the University's overall carbon footprint.

The Horticultural Research Center follows an integrated pest management (IPM) approach to growing in order to minimize the use of pesticides and chemical fertilizers; the result is produce of an excellent quality while reducing the impact of production on the environment. By developing a working relationship with McGill's Food and Dining Services Department, the Horticultural Center will be able to hire more McGill students to work at the Center, providing them with practical experience in sustainable agricultural practices to complement the knowledge learned in the classroom.

Presently the University buys its horticultural produce from exterior suppliers. This project would keep some of the University's financial resources within the institution with direct benefits for the McGill community and students in particular. This project will also optimize the use of currently available land, machinery and other resources at the Macdonald Campus.

The project will strengthen the relationship between the Campuses by opening up our Campus to visits, and academic and work opportunities for McGill's students from the downtown campus.

All the above contribute to a clear vision of sustainability: McGill helping itself... to help itself!

## ***Provide any supporting information that demonstrates a need for the project on campus:***

The 2012 season was McGill Feeding McGill's most successful season to date. We delivered around 25,000 Kg of fruits and vegetables to McGill's downtown residences. This is an increase of 66% from the previous year. The total amount of food delivered over the three years that the project has been in place is 50,000 Kg. We were actively involved in the Guinness World record event on Campus, contributing over 60% of the produce used for the event, the project is also the focus of the recent national IPAC award given to McGill's Food and Dining services for its innovative approach to sourcing its food. Both of these events generated a lot of media coverage for the McGill Feeding McGill project.

The acquisition of the Farm Fresh Truck (SP0079) has greatly facilitated delivery to our downtown residences at the same time the vehicle is used by the MSEG group to bring their produce to the McGill Farmers Market and for egg (SP0052) and meat sales by the Mac Farm during the fall, winter and spring months.

One of our goals is to provide opportunities for our students in the field of Agriculture, to learn about the growing, harvesting and marketing of horticultural crops. In 2012 we were able to provide 5,000 hours of employment to students from both Campuses. The students benefit greatly from this practical experience as it's something that complements what they learn in the classroom.

The project is already becoming institutionalized, in this year's budget, the Plant Science dept. is committed to providing administrative hours, technician and non student hours, student hours, fuel and machinery costs, land and greenhouse space as well as the time for the project leader, Mike Bleho, to organize and supervise most of the field work and deliveries. This spring we will be installing another 6,000 sq. ft of high tunnels (to add to the 10,000 sq ft we already have put in place for this project) this is a fund raising initiative that I undertook with McGill's Alumni relations.

The goal is to increase production in 2013, perhaps not as dramatically as in the past few years since we are reaching capacity with our present partners (McGill food and Dining and Aramark) but we have had interest from new partners – ie PGSS's Thomson House and Macdonald campus' Sodexo. This year we would like to install a washing station to be able to offer a cleaner product to our chefs.

Thanks to the SPF, the McGill rain water collection project (SP0015) has enabled us to use rain water collected from the roof of the Hort. Center, to grow all our transplants in our two greenhouses and this season we are hoping to be able to use the rain water to irrigate a portion of our crops in the field throughout the summer. The rain water can also be used for the first rinse in the washing station we are hoping to set up.

Students still have the opportunity to enroll in "Special Topics" courses offered as part of their summer work at Hort, most of these deal with the scouting, research and control methods involved in a pesticide free way of dealing with vegetable and fruit pests. We are also encouraging students to look into novel ways of sustainable production and season extension in high tunnels, presently an area of interest across the province.

A comprehensive list of all classes and labs that have links with the project can be found on the sustainability website under the McGill feeding McGill presentation tab <http://www.mcgill.ca/sustainability/mcgill-feeding-mcgill-2>.

These are just a few of the benefits that this project has brought to us so far and as it expands, the opportunities for students and staff will grow. The project has opened up a link between the downtown Campus and the Macdonald Campus, some of our student workers live and study downtown, travelling to Mac by shuttle bus and public transportation.

The project has also enabled us to donate food to a multitude of University and student events such as: McGill's Food Security conference, "learning to teach" day, Food Secure Canada conference, PGSS and MCSS bbq's and events, Alumni and Homecoming events, Happy Belly, McGill and CEGEP open houses and McGill's Farmers Market to name a few.

#### Time frame/Milestones:

The projected time span is the annual growing season: from about April to November depending on the weather for outdoor production.

**Early March:** Meetings with the partners to decide what quantities of which crops need to be grown, seeds need to be ordered. Students hired.

**April:** Transplants started in the greenhouses, watered daily and maintained.

**May:** Field plans drawn up, fields prepped for transplanting, mulch and irrigation lines.

**June and July:** Plants are transplanted to field, maintained throughout growing season.

**August:** Harvests begin in mid August (depending on species), weekly deliveries to BMH .

**September:** field harvests and delivery to BMH, RVC, Douglas and New Rez.

**October:** field harvests(depending on weather) and delivery to BMH, RVC, Douglas and New Rez residences

**November:** field harvests (depending on weather) and delivery to BMH, RVC, Douglas and New Rez residences

Success metrics:

The main measure of the projects success has to be the satisfaction of the chefs from McGill's Food and dining services with the produce that we grew here at Macdonald. Accolades from students and staff regarding the taste and quality were numerous. This project was also featured as an innovative and unique opportunity for the University in print and television media and has received a silver medal in the prestigious, national IPAC awards competition. Students who worked for the project were left with the satisfaction of doing something worthwhile. The outcome of this project is that students and staff will be served excellent quality produce, grown on site at McGill. McGill students and staff are invited to come to our farm, anytime, to increase their awareness of local food production and issues of sustainability. Specific field days will be organized to increase awareness of our community to local and sustainable food production, targeting specifically the downtown Campus community.

Stakeholders:

- The Macdonald Campus Horticultural Center will be responsible for growing the food in the project. The Horticultural Center is a field station of the Plant Science department located on McGill's Macdonald campus.

The Plant Science Department will provide the land, greenhouse space, machinery and vehicles used in the project as well as its senior horticultural technician (Mike Bleho) to oversee and supervise all staff involved with the production of the fruits and vegetables.

- The Chair of the Plant Science dept is **Dr. Philippe Seguin**.
- **Dr. David Wees** teaches courses in Horticulture for the Plant Science Dept. and the Farm Management and Technology program.
- **Dr. Katrine Stewart**, retired professor of horticulture, is available for consultation on production aspects of the project.
- Dr. Valerie Gravel is a new professor of Horticulture in the Plant Science Department and available for consultation on various aspects of the project.

The fruits and vegetables will be delivered and sold to McGill's Food and Dining services:

- **Oliver de Volpi** is responsible for Food and Dining services at the various residences.
- **Daniel Poulin** is the Executive Chef at the New Rez (Aramark)
- **Pierre Majois** is the Executive Chef of the McGill Faculty Club
- The project has initiated an on farm collaboration with the Agricultural Engineering Department, especially **Dr. Mark Lefsrud** who initiated the rain water collection project

(SP0015) and is presently working on other farm related applications that would add to the success of the McGill feeding McGill project.

All stakeholders are on board and meetings are scheduled, to work out final details.

**Project implementation**

Tasks and Responsibilities:

<b>Type of Activity- Task</b>	<b>Estimated time required</b>	<b>Group member in charge</b>
Overseeing all aspects of the project, meetings, hiring, supervising students, fertigating, scouting for insects & diseases, interacting with partners at McGill (14hrs/week for 36 weeks)	504 hours	M. Bleho
Seeding various crops in greenhouse and maintaining plants till transplanting	200 student hours	M. Bleho
Field preparation including mulch, irrigation lines and compost application	150 technician hours	M. Bleho
Transplanting to field	400 student hours	M. Bleho
Crop maintenance (including setting up high tunnels)	2000 student hours 200 non student hours 100 technician	M. Bleho
Staking and tying tomatoes	250 student hours	M. Bleho
Harvesting	1700 student hours	M. Bleho
Picking, packing and organizing delivery	200 non student hrs 300 student hours	M. Bleho
Delivering food downtown	350 non student hrs	M. Bleho
Fall clean-up (removing mulch, irrigation lines, debris, etc)	150 student hours	M. Bleho
All administrative hours related to accounting, office work etc. 3 hrs/ week for 36 weeks	108 staff hours	Lynn Bachand
<b>Total hours</b> <b>Supervisor</b> <b>Technician</b> <b>Admin</b> <b>Student</b> <b>Non-student</b>	<b>504 hrs</b> <b>250 hrs</b> <b>108 hrs</b> <b>5000 hrs</b> <b>750 hrs</b>	

## Financials

Expenses (see Appendix A for details):

<b>Other contributions</b>	<b>Plant Science contribution</b>	<b>Total contribution</b>
68,492\$ (A)	76,195\$	= 145,038\$

Detailed Revenues:

<b>Revenue source</b>	<b>Amount estimated</b>	<b>Confirmed?</b>
Sales to BMH, RVC, New Rez, Carrefour, Thompson house	40,000\$	Yes
Total Sales (B)	40,000\$	Expected
Recovery from work study program (C)	5,000\$	Yes
<b>Total requested from SPF ((A)-(B+C))</b>	<b>23,492\$</b>	No

APPENDIX A: Detailed Expenses:

<b>Expense description</b>	<b>Other contribution</b>	<b>Plant Science Dept. contribution (All confirmed)</b>	<b>Total contribution</b>
5000 student hours at 11\$/hr + benefits (17%)	44,350\$	20,000\$	64,607\$
250 hrs of technician time at 25\$/hr + benefits (17%)	0	7,310\$	7,310\$
108 administrative hours at 40\$/hr + benefits (22%)	0	5,270\$	5,270\$
504 hrs of supervision at 40\$/hr + benefits (22%)	0	24,595\$	24,595\$
350 hours for non student truck driver at 15\$/hr + benefits 17%	6,142\$		6,142\$
400 hrs for non student worker at 15\$/hr + benefits (17%)		7,020\$	7,020\$
Washing station	8,000\$		8,000\$
100 reusable plastic food grade bins, for transporting food	3000\$	0	3000\$
Seeds, mulch, irrigation lines, stakes + cord (tomatoes), bio control +misc tools	7000\$	0	7000\$
Land rental fees + greenhouse rental	0	2,000\$	2,000\$
Machinery rental expenses + fuel	0	5,000\$	5,000\$
New Tunnel (6,000sq ft)		5,000\$	5,000\$
<b>Total Expenses</b>	<b>68,492\$ (A)</b>	<b>76,195\$</b>	<b>145,038\$</b>