Campus Planning and Sustainability

Edible Landscapes on the UVic Campus

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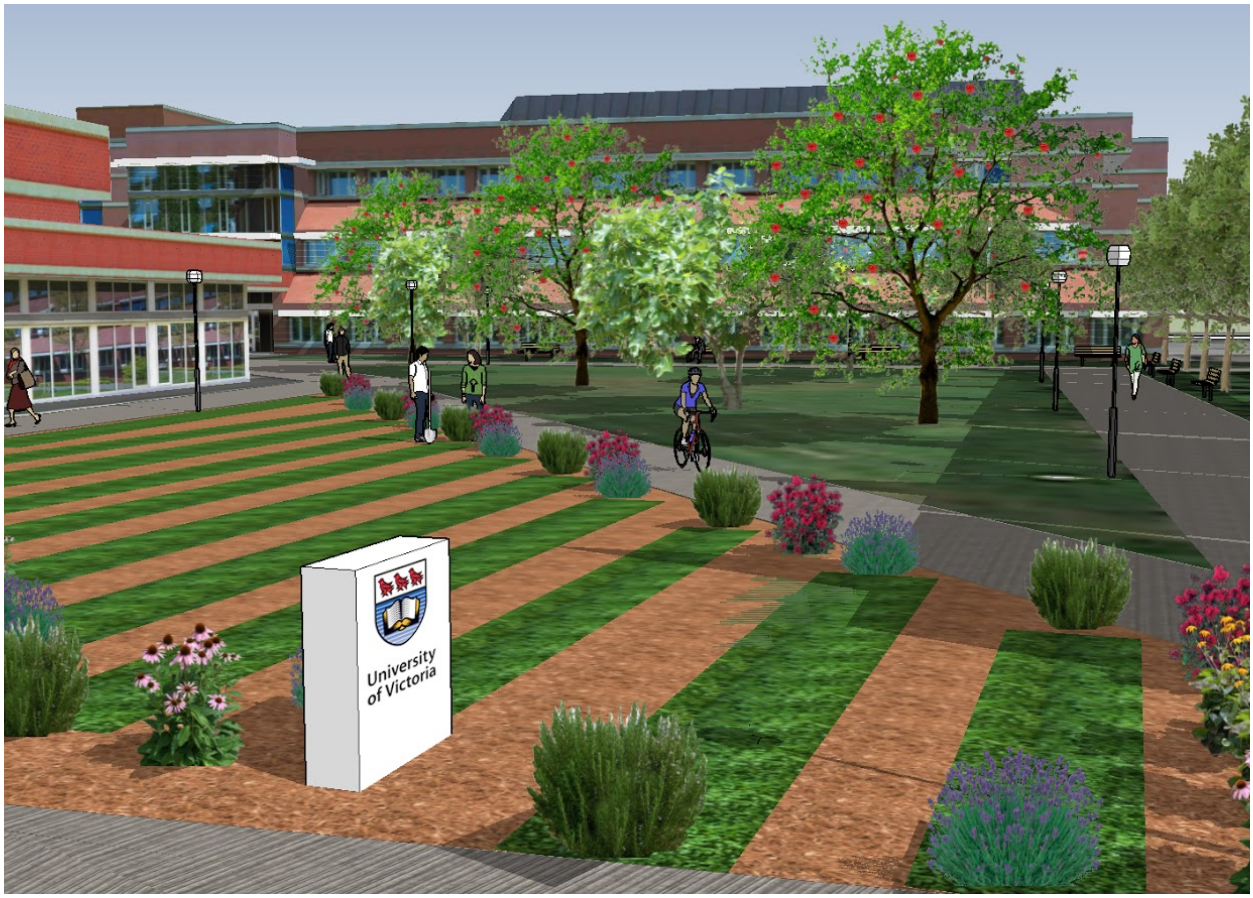

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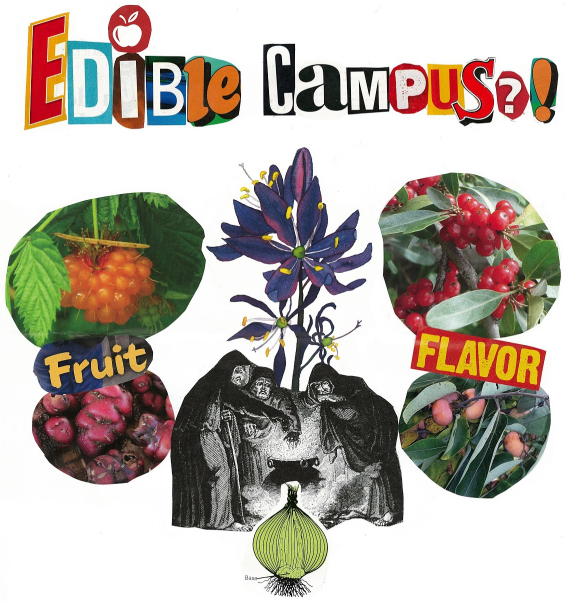
Acknowledgements

We would like to acknowledge that UVic is situated on unceded Lekwungen and WSANEC territory. Furthermore, we wish to emphasize that First Nations here and throughout the Province set a remarkable precedent with the sophisticated and highly sustainable “edible landscapes” they created and stewarded. A growing body of research, much of it generated through UVic, suggests the techniques they employed are still viable and in many cases represent the best way forward. It is our hope that current and future efforts to establish edible landscapes on the UVic campus recognize this heritage not only in passing, but actively engage contemporary initiatives by the Lekwungen and WSANEC to restore traditional food systems.

This report has been developed through a collective learning processes that has involved individual students, student groups, staff, and the faculty at University of Victoria (UVic). First, we would like to express gratitude to Matt Greeno and the Campus Planning and Sustainability Office for their earnest support throughout the whole project. Second, we thank all the participants in the Edible Campus workshop for their contributions to the ideas in this report. Third, we are grateful to Dr. Nancy Turner, Dr. Eric Higgs, and Dr. Valentin Schaefer of the School of Environmental Studies and Peter Robert in the FMGT Grounds for their consultation and guidance. This project is part of the “Ready Set Solve!” challenge competition of the Capital Regional District, and we thank the CRD for providing us with a great opportunity to work on such a meaningful project with great individuals and groups.



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Introduction

In the wake of a rapidly growing human population and the accompanying urbanization and industrialization of many landscapes (Clark & Nicholas, 2012), improving food security, biodiversity and sustainability in urban areas has become a global priority (FAO, 2008; Wu 2008; Lovell 2010). Since early 2000, universities and schools around the world have begun to incorporate edible plants in landscaping, sometimes in addition to actively growing food for students and educational purposes (e.g. McGill University; University of British Columbia; University of Seattle, etc.). The University of Victoria has planted some apple trees, native edible berries, etc. on the campus which are managed by the Facilities (Grounds) Department. However, these plantings are not widely known to students and are often taken advantage of by just one individual (apples) or a small number of students.

The Edible Campus project was initiated by the Campus Planning and Sustainability Department through the Ready, Set, Solve! Challenge to directly address the actions items under section 5.5 of the Sustainability Action Plan: specifically, to "investigate the feasibility of edible landscapes and other food growth options on campus." This action supports the goal to "create and maintain a campus landscape that minimizes environmental impacts, enhance biodiversity and maintains aesthetic values" (UVic Sustainability Action Plan 2014-2019, 2014, p. 14). Our project seeks to link food security (e.i. Food Bank), student health, and restoration initiatives (e.g. Ecological Restoration Volunteer Network) on campus in order to avert potentially destructive actions (e.i the March 2010 guerrilla garden in the quad) and to channel student, faculty, and administrative energy towards common goals. These include increasing the presence and diversity of edible plantings at UVic building community, improving student health, creating hands-on education and research opportunities , maintaining and increasing campus biodiversity, enhancing the beauty and ecological integrity of the grounds, and being a global leader in promoting sustainability.

This feasibility report is the outcome of the present and past efforts of students, staff and faculty at UVic and includes ideas and visions of students shared during the Edible Campus workshop (March 2016). Our overarching approach to produce this report was to connect with and mobilize existing on-campus groups and resources to develop and implement a

long-term vision for making UVic an “edible” campus. It is intended to lay the foundation for designing a master plan in the future in line with four goals shared by UVic communities:

- To provide fresh, nutritious, and affordable/free food for students, staff and faculty and community members and to contribute to the physical and mental health of UVic communities
- To demonstrate replicable sustainable food production model(s) that contribute to biodiversity and ecological integrity of the campus landscapes
- To foster knowledge and skills related to growing food and restoring degraded lands in the community, creating hands-on academic and research opportunities
- To enhance biodiversity on the campus

The report includes recommendations for the three initial challenges proposed by the Campus Planning and Sustainability:

- Assess the feasibility for creating edible landscapes at UVic
- Identify up to 5 potential locations where those landscapes could be piloted, and
- Identify individuals or groups at UVic who would take responsibility to care for the pilot spaces

Further, it provides:

- Case studies of other edible campus projects
- Plant lists for edible landscapes on the campus
- Potential courses that the UVic edible campus project could collaborate with, and
- Potential beneficiary and key considerations for each site

In arranging consultations, conducting the workshop, and preparing this report we have sensed great interest and energy in developing edible landscapes at UVic. We acknowledge that continuous support from the University is essential to capitalise on this collective energy. This report will be shared among the workshop participants and interested individuals and will continue to evolve and develop with time.

Challenges

- **Lack of leadership and collaboration**

Consistent leadership is essential to collect, correlate, and communicate a wide range of ideas from multiple stakeholders on the campus. So far, there has been insufficient collaboration between students, staff and faculty. There have been insular actions - such as the March 2010 guerrilla garden in the quad, or efforts by Grounds to plant fruit trees - which demonstrate a collective desire for growing food on the campus. In order to transform this scattered energy to concerted action that works toward common goals over long-term, creative and collaborative leadership is needed.

- **Lack of continuity**

Productive edible landscapes requires continuous maintenance, education and adaptive management. Growing food involves planting, watering, pruning, harvesting, etc. Many projects initiated by students falter and are discontinued when a leader or a champion graduates. To ensure the continuity of project(s), it is imperative to create a form of organization that effectively passes on the knowledge and skills and continues collaborative partnership with faculty, staff, administration, and the wider community.

- **Potential vandalism**

Overharvesting by individuals has been a problem on the campus and potential vandalism can be an issue. Overzealous and irresponsible actions must be effectively discouraged.

- **Deer / Wildlife browsing**

Deer, rabbits, other urban wildlife can damage plants and prematurely harvest food crops.

- **Funding**

Funding is imperative for creating the organization, developing sound designs, maintaining sites, and implementing education, etc. Funds should create jobs for students and/or incentives for involving a greater range of UVic communities as well as local First Nations and other regional food pioneers.

Major Recommendations

- **Create a multi-stakeholder committee to develop edible landscapes**

While most food production initiatives on university campuses are initiated and driven by students, the support of faculty, staff, and administrators is critical for the success and longevity of these projects. We propose that a committee composed of representatives from all stakeholder groups be created to guide progress, ensure all voices are heard, and efficiently mobilize available resources. While at least one group must take a leadership role, all stakeholders must be brought to the table and contribute in their fashion.

- **Integrate edible landscapes with existing academics and research**

Academics and research are at the heart of university affairs, and edible landscapes should have educational benefit first and foremost. Regular classes throughout the year can help maintain such systems while providing much needed hands-on experiences for students. New classes or lab sections could be created around edible landscapes.

- **Identify beneficiaries, caretakers, and funding mechanisms site by site**

There is no one-size-fits-all solution for edible landscapes. Designs must be site by site.

- **Choose sites with high traffic and visibility**

While edible landscapes could be used to develop underutilized areas of campus, we propose that, at least to begin with, efforts should focus on improving areas of campus with higher traffic and visibility in order to prevent vandalism and theft, prioritize safety and accessibility, maximize educational potential, and discourage wildlife browsing.

- **Combine with placemaking, student health, and art initiatives**

Non-food related benefits will broaden community involvement and support.

- **Involve local First Nations**

“Edible Campus” committee / group should include local First Nations and prioritize reconciliation, decolonization, and revitalization of indigenous food systems.

Campus Survey

Figure 1: Identified potential edible landscape sites on campus, with five highlighted for discussion

The campus was surveyed over the course of three weeks in February. Sites were selected based on the authors' experience and in consideration of staff, faculty, and student recommendations. Major criteria for site selection were:

- Appropriate exposure and soil for food production
- Safety, sightlines, and visibility
- Accessibility and proximity to potential caretakers
- Defensibility against wildlife
- Marginal biodiversity, academic, or recreational value
- Greatest potential for improvement
- Least disruption to important campus and student activities

Map Key

Edible Landscape Type

Ethnobotanical

Perennial

Annual / Perennial

Five of these sites, noted above, are highlighted in the following pages.

David Turpin Building Gardens

Description

This site consists of landscaping around the perimeter and in the courtyard of the David Turpin Building. The site is unique in that it already has some food and biodiversity value. Potential exists to improve these landscapes through additional plantings, better maintenance, and signage.

Figure 2: David Turpin Building courtyard with "visitors"

Potential Caretakers

The David Turpin Building is the home of the School of Environmental Studies, with numerous classes related to food sovereignty, ethnobotany, restoration, and ecology. Dr. Eric Higgs has suggested that there is interest in the Department to enhance the existing landscape with more native species, including edibles, and to increase student involvement in maintaining the area. Lindsay Kathrens has indicated that the Ecological Restoration Volunteer Network is also interested. Better integration with existing or future classes is an additional maintenance option.

Potential Beneficiaries

Casual "foraging" by students, faculty, staff, and visitors could contribute to connection to place, appreciation of indigenous foods, understanding of local ecology, and nutrition.

Other Considerations

- Great potential to provide habitat for birds, insects, pollinators, and amphibians
- Educational signage could transform courtyard into outdoor classroom
- Could be sealed off from deer access with a single gate on the western entrance
- Potential for some funding through grants, a work-study position, or the University

Strong Building Green

Description

Surrounded by the Business and Economics, Strong, Cornett, and University Centre buildings, this grassy area has high traffic but low recreational value compared to the nearby quad. The location is central, but not overly conspicuous - perfect for a pilot edible landscape project.

Figure 3: Strong Building Green; viewed from the south

Potential Caretakers

Suitable for a wide variety of food production landscapes ranging from intensive annual production to a small orchard of fruit trees, this site would provide an excellent opportunity for student groups, grounds, staff, and classes to collaborate to produce food in a more concentrated manner. An information clerk at the School of Business has already expressed interest in helping maintain such a landscape.

Potential Beneficiaries

Depending on the type and scale of food produced, a variety of potential beneficiaries exist. Food could be distributed through the Student Food Bank, incorporated into campus dining services, consumed at harvest events, used by classes, and/or sold to support edible landscaping projects.

Other Considerations

- Great potential to transform an in-between “space” into a destination “place”
- Variety of exposures allows for a diversity of food production approaches
- Sheltered location creates potential for restricting deer access
- Potential for funding by grant, through student organizations, or in partnership with dining services

Student Union Building Lawn Area

Description

One of the largest open areas of lawn on campus, the green to the west of the Student Residences and the south of the Student Union Building (SUB) has high traffic but - aside from the area immediately around the SUB itself - is rarely used. Some form of edible landscape could benefit this area.

Figure 4: Open area south of the SUB; viewed from the North

Potential Caretakers

Much like the Strong Building Green, this area has a variety of food production options and a variety of potential caretakers - see Page 9 for a summary of these. Edible landscapes in this area could be created in conjunction with other "place-making" efforts along ring road (UVic Campus Plan, 2015). Additionally, proximity to the SUB and Student Residences make this an excellent place for "interactive" edible landscapes: these include labyrinths, meditation gardens, and/or pollinator gardens. These other dimensions would welcome involvement by students and groups otherwise less involved in campus landscapes and food growing.

Potential Beneficiaries

Similar to Strong Building Green - see Page 9. If incorporated into art, student health, and/or placemaking initiatives, the entire campus community could greatly benefit from aspects of edible landscapes unrelated to food production.

Other Considerations

- Great potential for involving a wide variety of students, groups, and stakeholders
- Enclosures, individual protection for plants, or deer-resistant plantings necessary
- Potential for funding by grants, UVSS, or as part of the Campus Plan (2015) projects

West Quadrangle and South Entrance

Description

The western quarter of the Quad - including the southern pedestrian corridor into campus - has excellent exposure, a great location, and significantly less recreational use than the rest of the Quad. The recent loss of an old Arbutus tree presents a new opportunity for edible landscaping.

Figure 5: West quarter of Quad; viewed from southwest

Potential Caretakers

This site holds particular promise for perennial and ethnobotanical plantings. Two iconic totem poles - *Eagle on Decayed Pole* and *Raven Soaring* - tower above, and the First People's House is adjacent. It may be possible to collaborate with the Lekwungen and WSANEC to create traditional food landscapes that would be of great value on many levels without detracting from the character, safety, or visibility of the Quad as a whole. For example, a native berry garden - featuring some of the more than 30 highly edible berry species found in BC (Chambers 2011) - would be culturally significant, educational, and delicious habitat for people and small wildlife. A traditional camas meadow could also serve this purpose. Such landscapes could be cared for as part of research, academic classes, and/or student groups. Given the past and present significance of ethnobotany, indigenous studies, and restoration to UVic academics, such a garden would have many tenders.

Potential Beneficiaries

Ethnobotanical gardens would be of great educational, cultural, ceremonial, and nutritional value. A variety of harvest techniques would apply depending on the landscape.

Other Considerations

- Deer protection and educational signage would be absolutely essential

Student Residence Areas

Description

An abundance of underused lawn areas exist throughout both mature and undergraduate student residence areas, including several large open areas. Edible landscapes in these areas could benefit student health, nutrition, campus engagement, and de-stressing, while also beautifying these areas.

Figure 6: Undergraduate residences: viewed from the west

Potential Caretakers

Edible landscapes in residence areas could be as simple as a few fruit trees and as involved as satellite community gardens. At one end of this spectrum, Grounds and student groups could provide all necessary care; on the other, significant resident interest and involvement would be required. The mature student residences (Lam Circle area) could provide an opportunity to trial resident-maintained edible landscapes in an environment with family support and less turnover. Nevertheless, the undergraduate residence areas present a clear opportunity for incorporating critical student health and nutrition initiatives with other values to improve overall student experience in the first years away from home.

Potential Beneficiaries

The primary beneficiaries of edible landscapes in these areas would be the residents themselves, and harvest would depend on the scale and type of edible landscape.

Other Considerations

- Student safety is the main concern here - clear sightlines, lighting, and a well-tended, welcoming atmosphere would be essential
- Garden-style plots would be enclosed; individual trees could be protected from deer
- Potential funding could come from grants, Grounds, and/or residents (plot fees)

Conclusions

As university students in the year 2016, we represent a generation that has come of age with a distinct awareness of the urgency and creativity with which we must address a changing climate, increasing social inequality, and widespread environmental degradation. Without a doubt, developing sustainable, accessible, and environmentally appropriate food systems is a challenge central to all of these issues. As a leader in sustainability, the University of Victoria has an obligation to not only articulate, but to *model* the triple bottom line food systems of the future. The unceded territory of the Lekwungen and WSANEC peoples once supported such systems (Turner & Hebda, 2012); with the appropriate vision, will, and ingenuity, it will support such systems once again.

Drawing on our own personal experiences and the successes of projects on other university campuses, we believe there is significant potential for implementing edible landscapes on the UVic campus. The benefits to the campus community - human and non-human - are myriad, and include educational, recreational, nutritional, artistic, spiritual, biodiversity, cultural, and moral values. We are blessed in that the requisite human, environmental, and cultural resources are all present at UVic, making implementation practical and straightforward - it is simply a question of organizing and mobilizing stakeholders for a coordinated effort.

These five sites demonstrate the wide range of possibilities and great potential for implementing edible landscapes on campus. While we have chosen to focus on areas with high traffic and visibility for pilot edible landscapes, successful projects could provide a model for developing underused, peripheral areas of campus in line with UVic's placemaking objectives (UVic Campus Plan, 2015). In addition, many other options - ranging in scale from a campus farm to scattered individual fruit trees to herb gardens - exist and have precedent on other campuses. We have chosen to highlight compact ethnobotanical, perennial, and perennial/annual landscapes because these are most in line with UVic's past, present, and future trajectory as an academic institution, as well as with the interests of the student body. We hope this report is illuminating, inspiring, and practical; indeed, we look forward to the fruits - as well as the labours - that await.

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Appendix I: Types of Edible Landscapes

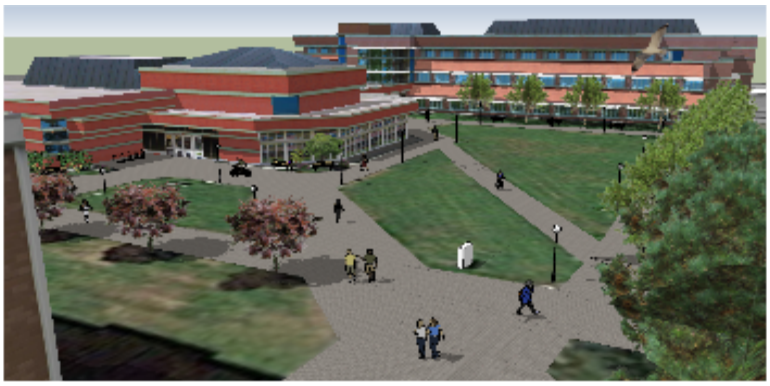


Figure 7: CAD rendering of Strong Building Green; viewed from southwest

Edible landscapes have been developed by human beings on every continent (save Antarctica) since time immemorial. Contemporary edible landscapes - whether traditional, permacultural, or agroecological - can take a variety of forms depending on the goals of the stewards, the scale involved, and the regional ecology. The following are examples of what the various types of edible landscapes discussed in this report could look like, using the Strong Building Green as an example.

Ethnobotanical Landscapes

These landscapes consist primarily of native plants and showcase the diversity and viability of indigenous food systems, in addition to providing excellent wildlife habitat.

Figures 8 and 9: Alder trees, native berry garden, and camas meadow (see Appendix III for plants lists); viewed from the south

Perennial Landscapes

Consisting of fruit and nut trees and/or shrubby and herbaceous perennial plants, these landscapes range from traditional orchard to multi-layered food forest, but can be as simple as dispersed "guilds" of edible plants.

Figure 10 (above): Orchard-style perennial landscape, with a variety of fruit trees; viewed from the south

Figure 11 (left): Guild-style perennial landscape, with mutually beneficial small edible plant communities clustered around trees, dispersed across the landscape; viewed from the southwest

Perennial / Annual Landscapes

A combination of perennial and annual production; crops may be in rows or more natural arrangements. Like ethnobotanical landscapes, this design mimics the mosaic nature of natural ecosystems.

Figure 12: Mosaic of annual and perennial species; viewed from south

Appendix II: Case Studies

The following are examples of successful university "Edible Campus" initiatives.

Case study #1 University of Connecticut, US

Type: student farm (1 acre farm, since 2010)

Who: 11 students living in 2 houses (4.5 miles off campus)

What:

- Growing and supplying veggies, herbs, fruits and flowers
- Educating fellow students, staff, and community members (tour, volunteer, high school internship, etc.)

Beneficiaries: Chuck & Augie's restaurant on the campus, retail outlet in the Student Union Building and at some dining units. They sell at UCONN's Farm Fresh market.

Collaboration: Department of dining Services, EcoHouse Learning Community, Residential Life, the College of Agriculture, Health and Natural Resources

Figure 13: Spring Valley Student Farm educational flyer

Case study #2 University of North California, US

Type: one educational demonstration site and multiple satellite sites throughout the campus (2015)

Who: Full-time, recent graduate of UNC-Chapel Hill started the project as part of an independent study; UNC-Chapel Hill Grounds Services; UNC Environmental Affairs Committee (Students' government)

What:

- Davis Library Edible Garden, demonstration and education site around food and agriculture sustainability
- Integrating more edible, medicinal, and pollinator-friendly plants into UNC campus
- Satellite sites: scattered around campus in small units, such as planters or foundation plantings, that can be tuned to the needs of the communities that surround them.

Collaboration: North Carolina Botanical Garden, The Food Theme Steering Committee, UNC Libraries, the Residential Housing Association, and UNC Housing and Residential Education.

Communication: Facebook, blog for the project http://ediblecampus.web.unc.edu/

Online edible campus map

Figure 14: Satilite site *Source: http://ediblecampus.web.unc.edu/*

Case study#3 Loughborough University, UK

Types: Fruit foraging ("Fruit Routes") (2011)

Who: Artist-led initiative, working with the Sustainability Team at Loughborough University and volunteer Fruit Routes 'curators'

What:

- Growing fruit (e.g. different varieties of pears, plums, damsons, greengages, hazels, almonds, apples), nut trees and edible plants along footpaths and cycle paths across the university campus
- Providing foraging opportunities on campus and sharing knowledge with the university and wider community through creative events, participation and mapping.
- Harvesting and fruit pressing, planting and pruning and one off events like wild teas in the orchard and bake-off competition.
- Fruit Routes Map: documents the fruit tree varieties, locations and recipes.

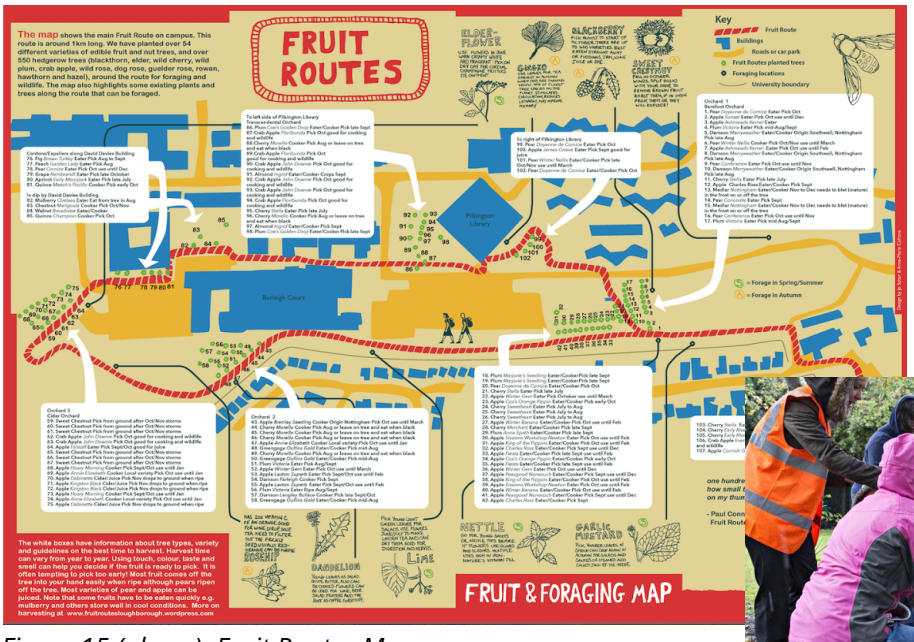


Figure 15 (above): Fruit Routes Map

Figure 16 (right): Students and community members harvesting apples

Source: Fruit Routes, Loughborough University

Case study#4 University of Massachusetts

Types: 4 edible, educational, and biodiverse permaculture gardens (2009)

Who: UMass Permaculture Committee and students and volunteers including faculty, staff, and community. Funded by University in 2010

What:

- Hosting "Permaculture Your Campus" conference
- Supplying 4,500 lbs of produce to campus Dining Services
- Growing 2000 fruit trees, bushes, herbs, flowers, and vegetables
- Transformed from lawns on the campus
- Achieved numerous awards, great volunteer involvement, support from admin

Collaboration: 3 full time and 1 part time staff, with 8 interns in the Sustainability Department; Stockbridge School of Agriculture ; Auxiliary Services Sustainability; UMass Dining Services

Communication: "Harvest Your Health" blog – possible collaboration w/ health services?

Figure 17 (above): Permaculture garden

Figure 18 (right): Students displaying harvest from the garden

Source: University of Massachusetts

Appendix III: Plant Lists

The following is an edible landscapes plant list for the UVic campus, compiled based on personal experience and input from Dr. Nancy Turner and Peter Janes of TreeEater Nursery. Plants are considered for their compatibility with local climate, campus activities, student safety, and practicality. A complete list - including harvest times, cultivar recommendations, and other notes - is available as a separate document.

Native Species

Category	Scientific Name	Common Name	Edible Parts	Climate Compatibilit	Feasibility
Native Trees	*Malus fusca*	Pacific Crabapple	Crabapples	Locally Native	Demonstrated – already on campus
	Corylus cornuta	Beaked Hazelnut	Hazelnuts	Locally Native	Major ethnobotanical and research value
	Sambucus racemosa	Red Elderberry	Berries, Flowers	Locally Native	Of ethnobotanical interest
	Sambucus caerulea	Blue Elderberry	Berries, Flowers	Native to BC	Great potential as food/medicine source
	Crataegus douglasii	Black Hawthorne	Berries, Flowers	Locally Native	Major ethnobotanical and research value
	Quercus garryana	Garry Oak	Acorns	Locally Native	Of ethnobotanical interest
Native Shrubs	*Amelanchier alnifolia*	Serviceberry	Berries	Locally Native	Great potential as food/medicine source
	Vaccinium ovatum	Evergreen Huckleberry	Berries	Locally Native	Demonstrated – already on campus
	Vaccinium parvifolium	Red Huckleberry	Berries	Locally Native	Great foraging value
	Vaccinium spp.	Blueberries, Huckleberries	Berries	Native to BC	Great potential as food source
	Gaultheria shallon	Salal	Berries	Locally Native	Demonstrated – already on campus
	Viburnum edule	Highbush Cranberry	Berries	Locally Native	Great foraging value
	Rosa nutkana	Nootka Rose	Rose hips	Locally Native	Demonstrated – already on campus
	Berberis aquifolium	Tall Oregon Grape	Berries	Locally Native	Demonstrated – already on campus
	Shepherdia canadensis	Buffaloberry, or soapberry	Berries	Locally Native	Major ethnobotanical and research value
	Rubus parviflorous	Thimbleberry	Berries, Shoots	Locally Native	Great foraging value
	Rubus leucodermis	Blackcap Raspberry	Berries, Shoots	Native to BC	Great potential as food source
	Rubus spectibilis	Salmonberry	Berries, Shoots	Locally Native	Demonstrated – already on campus
Native Herbs	*Lomatium nudicaule*	Wild Celery or barestem lomatium	Leaves, Seeds	Locally Native	Major ethnobotanical and research value
	Heracleum maximum	Cow Parsnip	Shoots, Seeds	Locally Native	Of ethnobotanical interest
	Urtica dioica	Stinging Nettles	Greens	Locally Native	Great potential as food source
	Allium cernuum	Nodding Onion	Shoots, Bulbs	Locally Native	Major ethnobotanical and research value
	Perideridia gairdneri	Yampah	Roots	Locally Native	Major ethnobotanical and research value
	Claytonia perfoliata	Miner's Lettuce	Greens	Locally Native	Great potential as food source
	Fritillaria camschatcensi	Northern Rice Root	Roots	Native to BC	Major ethnobotanical and research value
	Camassia spp.	Camas	Bulbs	Locally Native	Major ethnobotanical and research value
Native Covers	*Fragaria spp.*	Wild Strawberry	Berries	Locally Native	Great foraging value
	Rubus ursinus	Trailing Blackberry	Berries	Locally Native	Great foraging value
	Arctostaphylos uva-ursi	Kinnikinik or Bearberry	Berries	Locally Native	Of ethnobotanical interest
	Trifolium wormskioldii	Springbank Clover	Roots	Locally Native	Major ethnobotanical and research value
	Clinopodium douglasii	Yerba Buena	Tea Herb	Locally Native	Great potential as medicine source
Native Aquatic	*Typha latifolia*	Cattail	Roots, Shoots	Locally Native	Major ethnobotanical and research value
	Argentina egedii	Pacific Silverweed	Roots	Locally Native	Major ethnobotanical and research value
	Sagittaria latifolia	Arrowhead	Roots	Native to BC	Major ethnobotanical and research value
	Vaccinium oxycoccos	Got Cranberry	Berries	Native to BC	Major ethnobotanical and research value
	Nuphar lutea	Yellow Pond Lily	Roots, Seeds	Locally Native	Major ethnobotanical and research value

Non-Native Species

Trees	*Malus domestica*	Apple	Apples	Hardy	Demonstrated potential as food source
	Pyrus communis	European Pear	Pear	Hardy	Demonstrated potential as food source
	Prunus armeniaca	Apricot	Apricots	Hardy varieties	Some potential as a food source
	Pyrus pyrifolia	Asian Pear	Pear	Hardy varieties	Demonstrated potential as food source
	Prunus persica	Peach	Peaches	Hardy varieties	Some potential as a food source
	Prunus avium	Cherry	Cherries	Hardy	Demonstrated potential as food source
	Prunus domestica	Plum	Plums	Hardy	Demonstrated potential as food source
	Arbutus unedo	Strawberry Tree	Berries	Hardy	Some potential as a food source
	Ficus carica	Fig	Figs	Hardy varieties	Demonstrated potential as food source
	Mespilium germanica	Medlar	Medlars	Hardy	Great potential as food source
	Zizphus jujuba	Jujube	Jujubes	Hardy varieties	Some potential as a food source
	Morus spp.	Mulberries	Mulberries	Hardy varieties	Great potential as food source
	Cydonia oblonga	Quince	Quinces	Hardy	Great potential as food source
	Juglans spp.	Walnuts	Walnuts	Hardy	Some potential as a food source
	Sambucus nigra	European Elder	Berries, Flowers	Hardy	Demonstrated potential as food/medicine
	Castanea spp.	Chestnuts	Chestnuts	Hardy varieties	Great potential as food source
	Diospyros kaki	Persimmon	Persimmons	Hardy varieties	Great potential as food source
Shrubs	*Eleagnus goumi*	Goumi	Berries	Hardy	Great potential as food source
	Eleagnus umbellata	Autumn Olive	Berries	Hardy	Some potential as a food source
	Rubus spp.	Raspberries, Blackberries	Berries	Hardy	Great potential as food source
	Vaccinium spp.	Blueberries	Berries	Hardy	Great potential as food source
	Myrica rubra	Yamamomo	Berries	?	Some potential as a food source
	Rosa rugosa	Dog Rose	Rose hips	Hardy	Great potential as food/medicine source
	Hippophae spp.	Sea Buckthorn	Berries	Hardy	Some potential as a food source
	Ribes spp.	Currants, Gooseberries	Berries	Hardy	Demonstrated potential as food source
Vines	*Actinidia spp.*	Kiwis	Kiwi fruit	Hardy	Demonstrated potential as food source
	Brassica sp.	Tree Collards	Greens	Potentially hardy	Great potential as food source
	Humulus lupulus	Hops	Herb	Hardy	For brewing club? Campus pub?
	Vitis vinifera	Grapes	Grapes	Hardy	Demonstrated potential as food source
Herbs	*Brassica spp.*	Kale	Greens	Hardy	Demonstrated potential as food source
	Various species	Annual Crop Plants	Many	Depends	Demonstrated potential as food source
Covers	*Fragaria spp.*	Strawberries	Strawberries	Hardy	Great potential as food source
	Oxalis tuberosa	Oca	Tubers	Hardy	Some potential as a food source

Appendix IV: Class Pairings

The following classes have been identified by professors, students, and ourselves as being excellent candidates for integration with edible landscapes on campus (University of Victoria Sustainability Project *et al.,* 2015). It is undoubtedly incomplete - there are many other classes that could be on this list, and future classe could prioritize edible landscapes.

- CYC 230 Introduction to CYC Practice in Indigenous Contexts
- CYC 330 Applied Practice in Indigenous Contexts
- CYC 430 Research Practice in Indigenous Contexts
- ER 326 Traditional Systems of Land and Resource Management
- ER 331 Urban Restoration and Sustainable Agricultural Systems
- ER 390 Environmental Restoration Project
- ES 200 Introduction to Environmental Studies
- ES 301 Political Ecology
- ES 321 Ethnoecology
- ES 341 Past, Present, and Future Ecologies
- ES 429 Urban Ethnoecology
- ES 480 Advanced Topics in Political Ecology
- ES 481 Advanced Environmental Topics in Ethnoecology (incl. Intro to Permaculture Design)
- Geog 209 Introduction to Environmental Management
- Geog 391 Topics in Geography
- IB 405 Sustainable Communities
- Soci 388 Food and Society
- Socw 391 Indigenous Approaches to Healing and Helping

Appendix V: Results of the March 2016 Workshop

Description

On March 14, 2016, we held a workshop in the Student Union Building on campus. Our goals were:

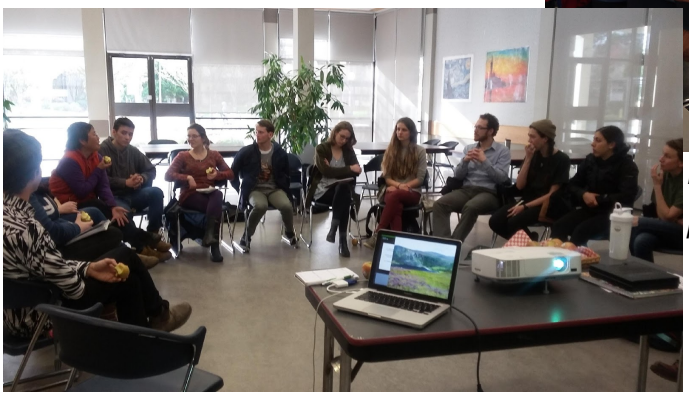
- To present preliminary research and ideas
- To assess student interest
- To brainstorm in a group and collect feedback
- To begin organizing a working group

About 25 people, mostly students, attended and participated in the workshop. Everyone had excellent suggestions that helped shape this report; in addition, most participants signed on to our mailing list and are eager to help organize with us.

Figure 19: Poster advertising our workshop

Outcomes

- Generation of new ideas
- Excellent feedback for report
- Mailing list with 20 people
- Significant energy for the creation of an "Edible Campus" committee, club, and/or group



Figures 20 and 21: Photos from March 2016 presentation and workshop

Appendix VI: Author Backgrounds

Adam Huggins

Adam is a current undergraduate student at the University of Victoria, majoring in Biology and Environmental Studies with a diploma in the Restoration of Natural Systems. He received his Permaculture Design Certification in 2010, and has since designed and created several successful edible landscapes on public and private land. He has worked for the California Native Plant Society, Rolling River Nursery, and the Purple Thistle Centre; currently, he is a nursery specialist at Saanich Native Plants and a steward at Spring Ridge Commons. He enjoys gardening, backpacking, beekeeping, and singing.

Hyeone Park

Hyeone is doing her MA research on food forestry and ecological restoration at the University of Victoria and is currently in the Restoration of Natural Systems program. She received her Permaculture Design Certificate in 2013 and received food forestry training in UK and Canada. She has been involved in a wide range of restoration projects in Victoria and . Previously she worked for the Marine Protected Area Centre and UNDP/GEF Wetland Conservation Project in South Korea. She enjoys dancing and hiking.