

SIP Garden: Sustainable Ingredient Production for Healthy Beverages

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Sustainability in beverages has been ignored

- Efforts focus on producing food in a sustainable manner
- Even plant-based ingredients are imported
- Midwest can grow a wide range of herbs and fruits



The goal is to demonstrate the potential for producing beverage ingredients sustainably

Sustainable Ingredient Production (SIP)

- Demonstrate the many herbs, berries, etc
- Grow items locally and sustainably
- Focus on human health in beverages
- Establish at the previous site of the Community Garden project with trellis



COMMON NAME	SCIENTIFIC NAME	DESCRIPTION	TASTE	BENEFITS	CULTIVATION
Teas/Main Ingredient					
Hops!!!	Humulus lupulus	Female fruits	bitter	relaxation, sleep	Zone 4 perennial vine
Herbs/Leaves					
Hops	Humulus lupulus	Female fruits	bitter	relaxation, sleep	Zone 4 perennial vine
Chamomile	Matricaria recutita	Aster family, dried flower		relaxation, sleep	Zone 2, tolerates light shade
Echinacea	Echinacea sp.	leaves, flower buds		cold/flu/allergy relief	Native perennial, partial shade
Lemon beebalm	Monarda citriodora		lemon (mint family)		Native perennial, rocky soils
Monarda/beebalm	Monarda didyma	stems, red flowers		cold/headache relief	Native perennial, partial shade
Monarda, purple	Monarda fistulosa	stems, purple flowers		cold/headache relief	Native perennial, partial shade
Mullein	Verbascum thapsus	leaves, flowers		respiratory	Biennial plant, intolerant of shade
Spearmint	Mentha spicata		fresh mint		Zone 5 perennial
Peppermint	Mentha x piperita		fresh mint		Zone 3 perennial
Mountain mint	Pycnanthemum virginianum		fresh mint		Zone 3, perennial, part shade
Lemon balm	Melissa officinalis		lemon (mint family)	calm, reduce stress	Zone 3, Weedy tendencies
Lemon thyme	Thymus citriodorus	leaves	lemon		Zone 5, woody(?)
St John's Wort	Hypericum perforatum	leaves, flowers	bitter, astringent	relief depression, anxiety	Zone 3, perennial/woody, part shade
Wintergreen	Gaultheria procumbens	fresh leaves	fresh		Zone 3, woody perennial
Dandelion root				cleansing	
Sheep sorrel	Rumex acetosella	leaves, full plant	sour, lemony	cancer-fighting	Herbaceous perennial,
Raspberry/black leaf		leaves			
Berries					
Cascara (coffee cherry)				caffeine	
Black currant	Ribes sp	berry -fresh or dry		Vitamin C	
Elderberry	Sambucus sp	berry -fresh or dry		antioxidants	
Aronia berry	Aronia melanocarpa	berry -fresh or dry		antioxidants	
Hawthorn		berry			
Grapes, Red (malbec)	Vitus vinifera	open skins		resveratrol	
Rose hips, prairie	Rosa arkansana suffulta			general health	
Roots					
Burdock root	Arctium sp.	Root	peppery	Detoxifies blood, liver	IL -common burdock, S.
Roasted chicory root		Root			



2015



2016



Desired outcomes focus on changing perceptions and behaviors, and education

- Change perceptions and behaviors regarding **beverages**
- Improve **Land Health**, particularly for small applications in urban environments
- Provide **ecological benefits**: conserving biodiversity, recycling nutrients, sequestering carbon, and infiltrating stormwater
- Reduce **ecological footprint** due to fewer external inputs
- **Educate** students and the public about connections between agriculture and human health, through healthy beverages.

Students will be engaged through existing classes and future internships

- Courses will be adjusted to include **SIP garden**
 - HORT 361 – Small Fruit Production
 - HORT 434 – Designing Urban Agriculture
- Paid **internships** will target interested students
 - Manage plots with new, alternative edible crops
 - Track all material and labor inputs for crops of interest
- **Signage** will help educate visitors (students and public)



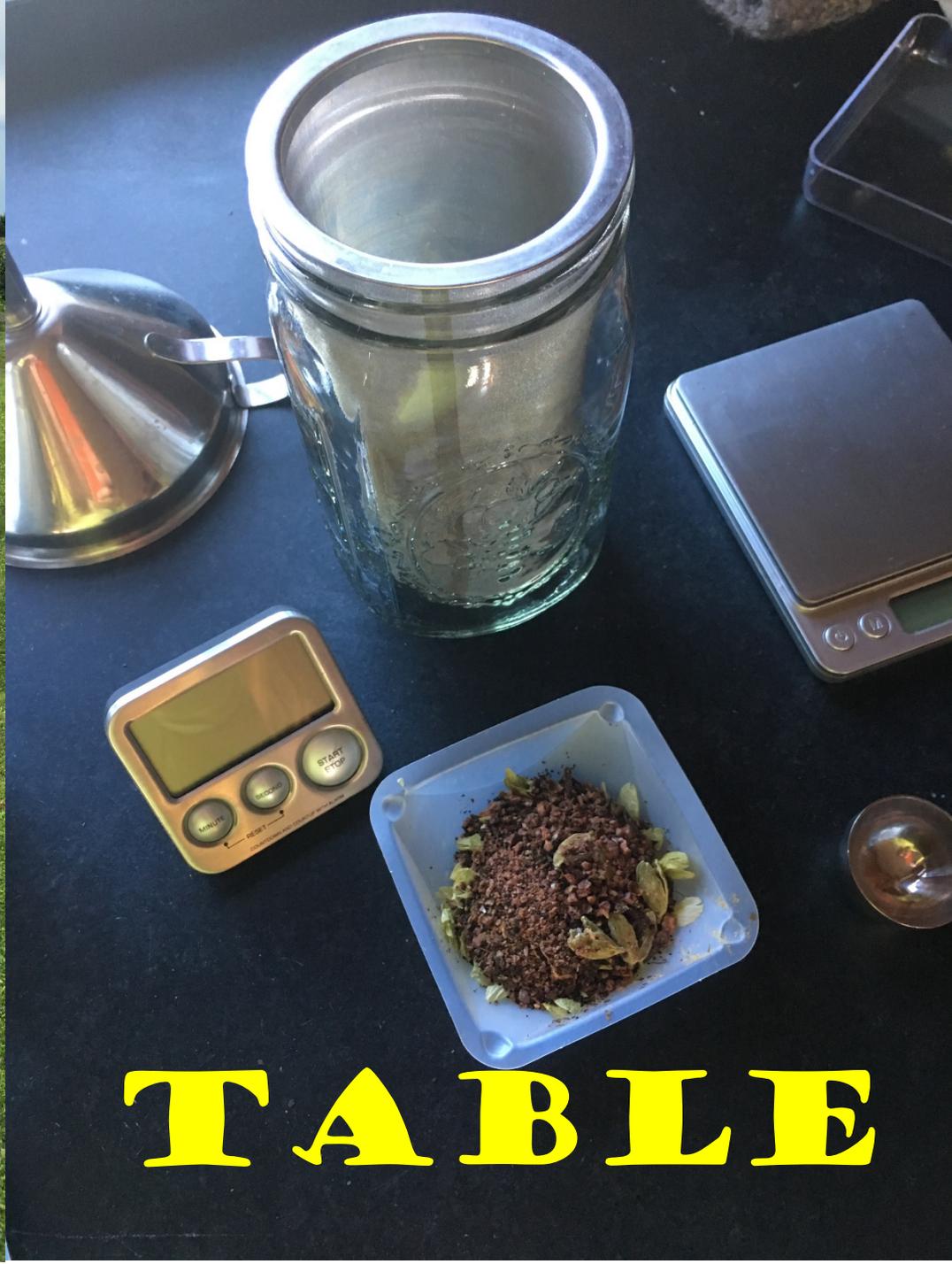
Budget Estimate

The project budget will include funding for the following:

- Summer Internships for 2 undergrad students: $\$4800 \times 2 \times 2 \text{ yrs} = \$19,200$
 - Technician to manage the field activities: $30\% \text{ time} \times 2.5\text{yrs} = \$49,537$
($\$34,282 + \$15,255$ benefits)
 - Plant materials and other field supplies $\$7000$
 - Site improvements (compost bin, picnic tables, etc) $\$5000$
 - Land Rent $\$1000 \times 3 \text{ yrs} = \3000
- TOTAL \$83,737**



FARM TO



TABLE

Questions?



CAMPUS COMMUNITY GARDEN



STUDENT SUSTAINABILITY COMMITTEE

UIUC Students:

Contact Prof. Sam Wortman (swortman@illinois.edu)
to reserve your garden plot today!

Further engaging students (both projects)

- Establish a dedicated role to manage undergraduate research opportunities at both sites – MWP and SIP garden.
- 50% time total, 25% from each project, and request a match from Department of Crop Sciences (or College of ACES)
- Explore outside funding opportunities (USDA) to develop a more permanent, long-term program for undergrad research

Requires additional \$12,000 for each project

An aerial photograph of a vast agricultural field, likely a research garden or farm. The field is divided into numerous rectangular plots, each containing different types of plants or crops. The colors range from vibrant green to yellowish-brown, indicating various stages of growth or different plant species. A road or path runs through the field, and the overall scene is well-organized and systematic.