

# Crops: Selection & Cultivation

Which crops will produce?

# 11

## What will we plant continued

This is the section students are most anxious to get into year after year. Students want to learn about how individual crops grow, how to start their seeds and all the logistics associated with getting the plants into the ground at the right time to produce a viable crop. The week after we started talking about markets and growing methods (week 8) we started talking about crops. This may seem backwards but the growing crops part seemed simpler than the issues with how we would grow what we would grow. We also needed to start tackling the farm layout issues which would be heavily influenced by the growing methods we chose.

Students started out by making top ten to grow lists of vegetables, woody plants (trees and shrubs of nuts and fruits), herbaceous perennials (vegetables, small fruits, vines, etc), herbs (culinary and medicinal) and flowers (edible and decorative cut flowers). These categories seemed straight forward but a number of crops ended up on multiple lists for example Chives are both an edible flower and an herb. Is asparagus an herbaceous perennial, a vegetable or both?

Once we had a loose list of annuals (vegetables, fruits & herbs) and perennials (vegetables, fruits and nuts) , we started brainstorming what we needed to know about the general categories of plants in order to grow them. Two assignments: Investigating Perennials and Crop Profiles (for annual vegetables primarily) came out of these brainstorming sessions. We also had students peer review each others investigating perennials assignment. The result of these assignments were used primarily by summer interns later in the actual growing of the crops and also in a research project designing the perennials into guilds for mutual benefit, economic and environmental yields.

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## Top Ten To Grow Lists

### A. Vegetables

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.

### B. Woody Plants (Trees, Shrubs, Fruits, Nuts, Others)

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.

### C. Herbaceous Perennials (Perennial Vegetables, Small Fruits, Others)

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.

### D. Herbs (Culinary, Medicinal, Other)

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.

### E. Flowers (Cut, Edible, Beneficial Insect Attractors)

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.

## Plants Selection and Cultivation Time Table

Week of Class	Activities
7 (10 minutes)	Begin starting seeds in greenhouse (continue weekly)
8 (10 minutes)	Crops Brainstorm: Creating Top Ten Lists
9 (15 minutes)	Summarize Top Ten to grow lists, Introduce Investigating Perennials Assignment
10 (10 minutes)	Peer Review Investigating Perennials Assignment given
11 (10 minutes)	Vegetable Production Schedule Assignment Given
12 (10 minutes)	Wrap up
13 (90 minutes)	Plant Peas & Potatoes Outside

### Results:

The responses were compiled into a large list and tallied. Crops that received the most votes were further researched in the Investigating Perennials Assignment and Crop Profiles / Vegetable Production Schedules.

# Investigating Perennials Assignment

Crop (Common Name & Botanical Name):

Campus Expert & Contact Information:

1. Description: Type (woody or herbaceous perennial, annual, etc.), expected rate of growth, Form / Habit

Mature Height & Width:

Immature Footprint:

Mature Footprint:

2. Source of seedling, cuttings, plants, etc:

Size & Cost:

3. Planting, Maintenance & Harvest  
Male /Female Pollination Needs:

Cross Pollinator (variety if needed):

Time of Planting:

Maintenance needed:

Time of Maintenance:

Harvestable product (What & How long before production begins?):

Time of Harvest:

Estimate of Yield:

Storage Conditions / Issues:

Equipment Needs & Costs:

	Equipment Needs	Equipment Costs
@ Planting		
@ Crop Maintenance		
@ Harvest		

Does the crop require irrigation?

# Investigating Perennials Assignment Continued

Human Resources (estimate)  
Enterprise / Calendar Matrix: (Worksheet 2.7)

Enterprise / Task	Hours / Month											
	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
Planting												
Maintenance												
Harvesting												

### 3 Most Common Pests & Diseases

A. Pest:

Symptoms:

Organic Control Mechanisms:

B. Pest:

Symptoms:

Organic Control Mechanisms:

C. Pest:

Symptoms:

Organic Control Mechanisms:

A. Disease:

Symptoms:

Organic Control Mechanisms:

B. Disease:

Symptoms:

Organic Control Mechanisms:

C. Disease:

Symptoms:

Organic Control Mechanisms:

Marketing: Is there a market?

To Whom:

To Where:

When:

Results:

The results of this assignment can be found in the Master Plan Investigating Perennials Section.

Conclusion of use on Student Farm: Is this a good potential crop? Why? Why not?

# Investigating Perennials Peer Review Assignment

Reviewer's name:

Author:

Crop:

Is report in Master plan format?

Is report in an easily summarized format?

Information included sufficient:

Area:	YES, NO, NA	Comments
Crop (Common Name & Botanical Name):		
Campus Expert & Contact Information:		
1. Description: Type (woody or herbaceous perennial, annual, etc.), expected rate of growth,		
Form / Habit		
Mature Height & Width:		
Immature Footprint:		
Mature Footprint:		
2. Source of seedling, cuttings, plants, etc:		
Size & Cost:		
3. Planting, Maintenance & Harvest Male /Female		
Pollination Needs:		
Cross Pollinator (variety if needed):		
Time of Planting:		
Maintenance needed:		
Time of Maintenance:		
Harvestable product (What & How long before production begins?):		
Time of Harvest:		
Estimate of Yield:		
Storage Conditions / Issues:		
Equipment Needs & Costs: (Is table filled out with estimated costs?)		
Does the crop require irrigation?		
Human Resources (estimate) Enterprise / Calendar Matrix: (Worksheet 2.7) (Is table filled out with an estimate of hours in each box?)		
3 Most Common Pests (Are pests, symptoms & control mechanisms given for 3 common pests)		
3 Most Common Diseases (Are pests, symptoms & control mechanisms given for 3 common pests)		

## Investigating Perennials Peer Review Assignment Continued

Marketing: Is there a market?		
To Whom:		
To Where:		
When:		
Conclusion of use on Student Farm: Is this a good potential crop? Why? Why not?		

Are references included in the correct format- see syllabus.

Please email a copy of your peer review to the author and your instructor.

Due:

## Crop Profile Assignment

Need to Identify for assigned crop:

1. Annual / Hardy Perennial / Non-Hardy Perennial
2. Cool Season / Warm Season Plant
3. Spacing Requirements:
4. Seeds needed for a 10 foot row
5. Expected yield from a 10 foot row
6. Harvest: # of harvests per plant per season? Multiple or Single, Seasonal or Continuous (if multiple or continuous lapse time in between harvests?- ESTIMATE)
7. We will need to do multiple plantings or just once?
8. Approximate first planting day (for our climate):
9. Planting Schedule on DAY basis:
  - Day 1: Plant Seeds in (Field / Greenhouse)
  - Day X: Transplant to \_\_\_\_\_
  - Day Y: Expected First Harvest
10. Are any support structures need for plantings (Trellis, etc)? What?
11. Tools needed for Harvest
12. Equipment needed for Harvest (Buckets, Tubs, Baskets?)
13. What processes are needed before going to market (wash, bunch, bag?)
14. Storage Requirements:
15. Pests & Diseases to be on the look out for: (list pests & symptoms for 3 most common).
16. Nutrient Requirements- heavy feeder, N-fixer?

### Results:

The results of this assignment can be found in the Master Plan Crop Profiles Section.