Kitchen Gardening:
Step by Step, From Apples to Zucchini

Roger Doiron, Founding Director, SeedMoney.org
What are your garden goals?
How many people do you want to feed?

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How much food?
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How many people do you want to feed?

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Of what type?
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How many people do you want to feed?

How much food?

Of what type?

Over what time period?
What are your resources?
Natural?
Space, soil fertility, sun, water

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Human?
Time, strength, number of people involved

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What are your resources?

Material?
Money, supplies, tools, structures
Natural?
Space, soil fertility, sun, water

Human?
Time, strength, number of people involved

What are your resources?

Material?
Money, supplies, tools, structures

Technical?
Skills, know-how
Choosing a site for a kitchen garden:
Choosing a site for a kitchen garden:

- full sun (at least 6 hours)
- well-drained soil
- within easy reach of the kitchen!
Things to consider when getting started
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- Start small and scale up as you encounter success.
- Start with what you and your family like.
- Try at least one new thing each year.
- Think “most bang for your buck” (most flavor, convenience, and $$$ savings).
- Succession planting
Find the garden system and layout that works best for you
Square foot gardening: an easy and efficient way of getting a lot out of a small space
My preferred system: W-O-R-D-S
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Wide rows
Organic methods
Raised beds
Deep Soil
Square foot
SPACED

Understanding the space requirements of different plants: what can you grow in a 6’ X 6’ space?

36 heads of lettuce

4 zucchini plants

1 dwarf apple
## Sun & warmth: Understanding the time and temperature requirements of different plants

<table>
<thead>
<tr>
<th>Perennials</th>
<th>Spring: short season, can be sown in cool temps</th>
<th>Summer: long season, warm temps</th>
<th>Fall: can survive or thrive in cooling temps</th>
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Organic vs Conventional

Organic:
- Mimics nature
- Recycles nutrients and waste
- Minimizes external inputs
- Preserves and enhances soil biological activity
- Conserves soil & soil moisture
- Eliminates the need for toxic chemicals
- Generally promotes human and ecological health
- System is in balance
- Feed the soil and the soil will take care of the things living in it
- “Plant positive” approach

Conventional:
- Agricultural chemicals are toxic
- Pesticides kill more than their target pests
- Implications for human and environmental health
- Synthetic fertilizers are manufactured from oil
- Feed the plant
- “Pest negative” approach
Organic Approach: Feed the SOIL

- uses organic matter (usually in the form of compost) and minerals in rock powders to build the organic component of soils and soil nutrient levels, which in turn supply the crop with its needs and improves soil structure so the soil has the capacity to hold water, air and nutrients
- nourishes soil bacteria and microorganisms
- low potential for pollution because nutrients are tied up in complex molecules
- less environmental impact because nutrients are recycled and conserved in the garden
- you feel better about what you’re eating!
What is soil anyway?
Nutrient Availability & pH Levels

(you don't need a PhD to understand pH!)

- pH is a measure of soil’s acidity or alkalinity, ranging from 1-14.
- The ideal pH for most fruits and vegetables is in the range of 5.0-7.0.
- You can find out your soil’s pH using a soil test.
- You can adjust your pH by adding lime to acidic soil or organic matter (or agricultural sulfur) to alkaline soil.
Increasing Fertility through Organic Soil Amendments

**Phosphorous:** rock phosphate, bone meal

**Potassium:** wood ash (also has a liming effect)

**Nitrogen:** compost, manure and mulches, legume green manures, blood meal, alfalfa meal
Compost: how nature fertilizes

- great source of organic matter
- the best way to build stable organic matter levels in soil
- a good source of nutrients that do not risk burning or shocking the microbes and helpful bacteria in the soil
- harbors a very diverse community of microorganisms, many of which have been proven to combat plant disease organisms
- the easiest way to use compost in a garden is to spread about an inch thick layer on the soil surface and till it in before planting
Key Organic Strategies

- Compost - to recycle organic wastes, provide food for soil organisms
- Crop Rotation - for fertility, weed control, to break pest & disease cycles
- Cover Crops/Green Manures - for fertility, to prevent erosion
- Diversity and companion planting - to encourage ecological interactions, let nature work for you
- Observation!!
Organic approaches to pest, weed, and disease control

- design the system to avoid the problems (e.g., crop rotation, intercropping, mulch plants to keep weeds down, use row covers to keep pests off plants, etc)

- manage problems as they arise with cultural practices (pull weeds, pick off bugs, remove diseased plant matter, etc)

- turn to (organic) pesticides and fungicides only as a last resort and in moderation
Cost-effective ways of extending your gardening season
Preserving the Harvest

- Cold cellars
- Drying
- Freezing
- Canning
- Pickling
Storing Vegetables and Fruits

Root veggies and tubers
Best at 31°-33°F / 0°C with high humidity.

Apples
Same conditions as above, but it’s best to keep them away from potatoes.

Onions, shallots, garlic
Keep these cold, like roots, but not so humid. Use onion bags or airy boxes.

Cabbage
Cold and humid like roots.

Squash/pumpkin
Least cool (50°-60°F / 10°-16°C) and rather dry (50%RH).
Drying: most easily suited to herbs but also can be used for fruits and vegetables.
Freezing: long-term, high capacity storage the easy way
Making and Freezing Pesto
Canning: two methods

Pressure canning: used for foods low in acidity, e.g. green beans, corn, mixed vegetables

Water bath canning: used for foods high in acidity, e.g. tomatoes, fruit, pickles
Canning tomatoes
Pickling is the process of preserving food by anaerobic fermentation in brine (a solution of salt in water), to produce lactic acid, or marinating and storing it in an acid solution, usually vinegar.
Thank you for your attention & happy harvests

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