



Kitchen Gardening:

Step by Step, From Apples to Zucchini

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What are
your garden
goals?



How many people
do you want
to feed?



What are
your garden
goals?



How many people
do you want
to feed?



How much food?



What are
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What are
your garden
goals?



Of what type?



**How many people
do you want
to feed?**



How much food?



**What are
your garden
goals?**



Of what type?



**Over what
time period?**



**What are your
resources?**



Natural?

Space, soil fertility, sun,
water



What are your resources?



Natural?

Space, soil fertility, sun,
water



Human?

Time, strength, number
of people involved



What are your resources?



Natural?

Space, soil fertility, sun,
water



Human?

Time, strength, number
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What are your resources?



Material?

Money, supplies,
tools, structures



Natural?

Space, soil fertility, sun,
water



Human?

Time, strength, number
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What are your resources?



Material?

Money, supplies,
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Technical?

Skills, know-how

Choosing a site for a kitchen garden:



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- 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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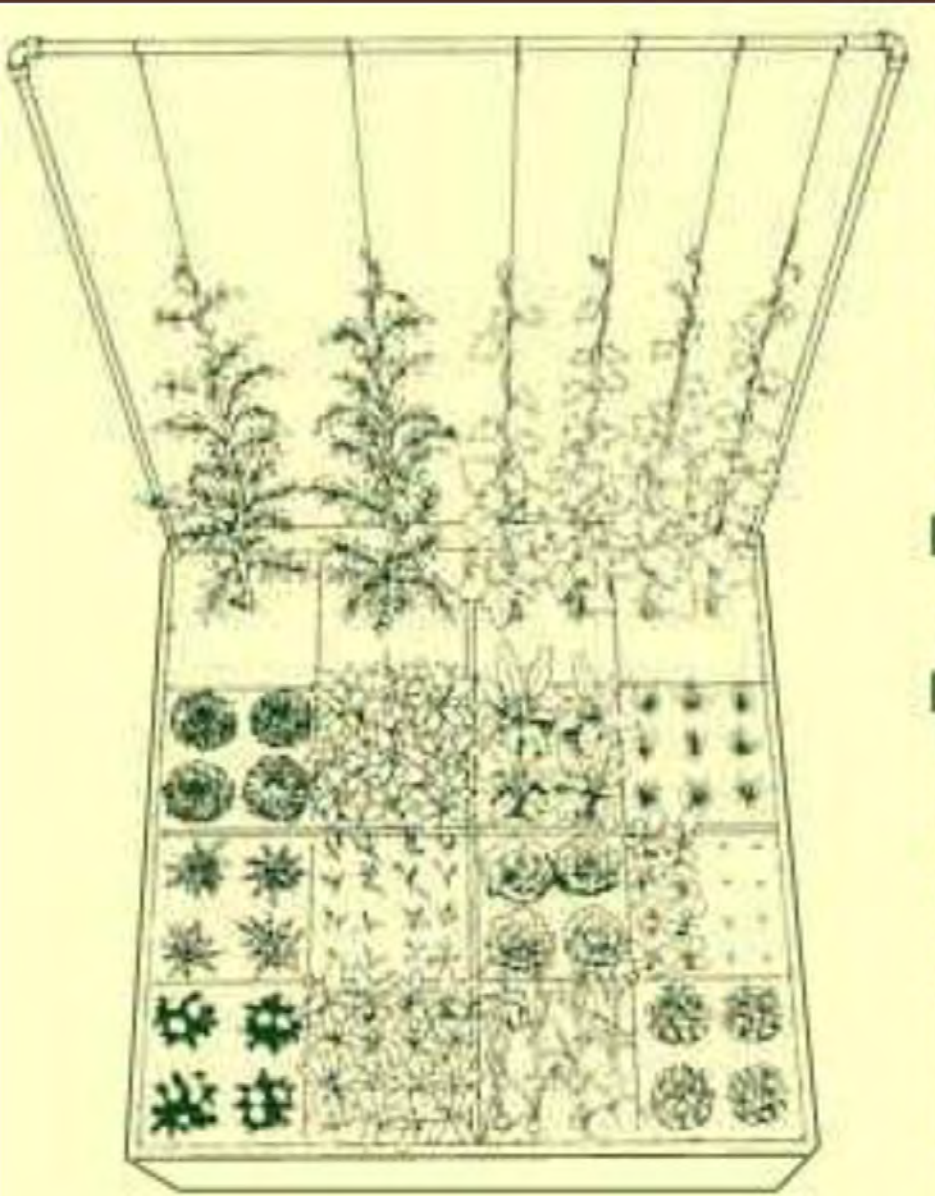
- Start small and scale up as you encounter success.
- Start with what you and your family like.
- Try at least one new thing each year.
- Think “most bang for your buck” (most flavor, convenience, and \$\$\$ savings).
- Succession planting



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**



My preferred system: W-O-R-D-S

Wide rows

Organic methods

Raised beds

Deep Soil

Square foot

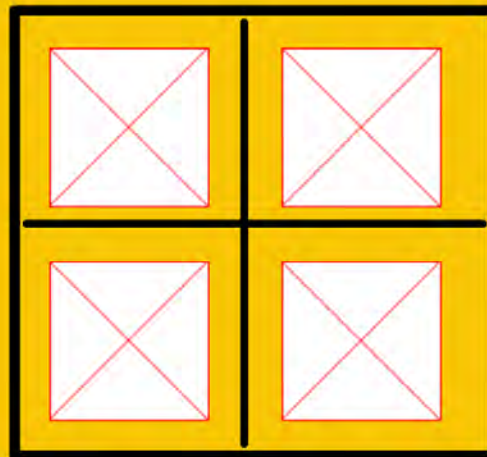


S - P - A - C - E

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

Perennials	Spring: short season, can be sown in cool temps	Summer: long season, warm temps	Fall: can survive or thrive in cooling temps
Asparagus Rhubarb Chives Horseradish Winter Onions	Early Beets Early Cabbage Lettuce Onion Sets Peas Radishes Early Spinach Mustard Turnips	Bush and Pole Beans Lima Beans Cabbage Celery Sweet Corn Cucumbers Eggplant Muskmelons Okra Peppers Potatoes Pumpkin Squash Tomatoes Watermelon Swiss Chard	Bush Beans Beets Broccoli Chinese Cabbage Carrots Cauliflower Endive Kale Kohlrabi Radishes Spinach Turnips Collards Lettuce

Organic

v s Conventional

- 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

- 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!**

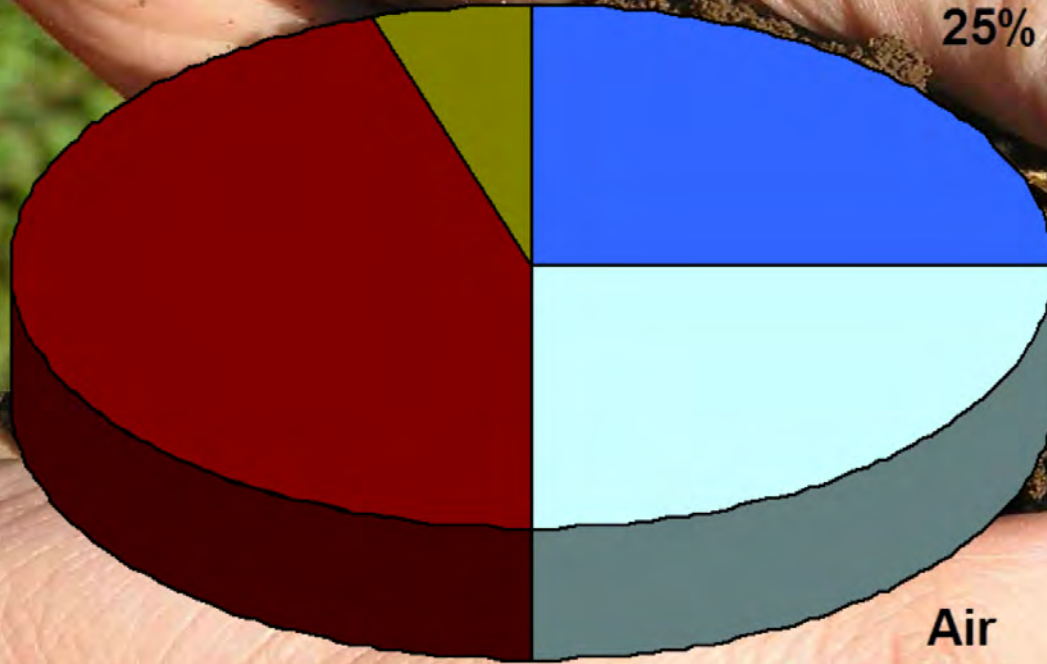
**Organic
Material**
5%

Water
25%

Minerals
45%

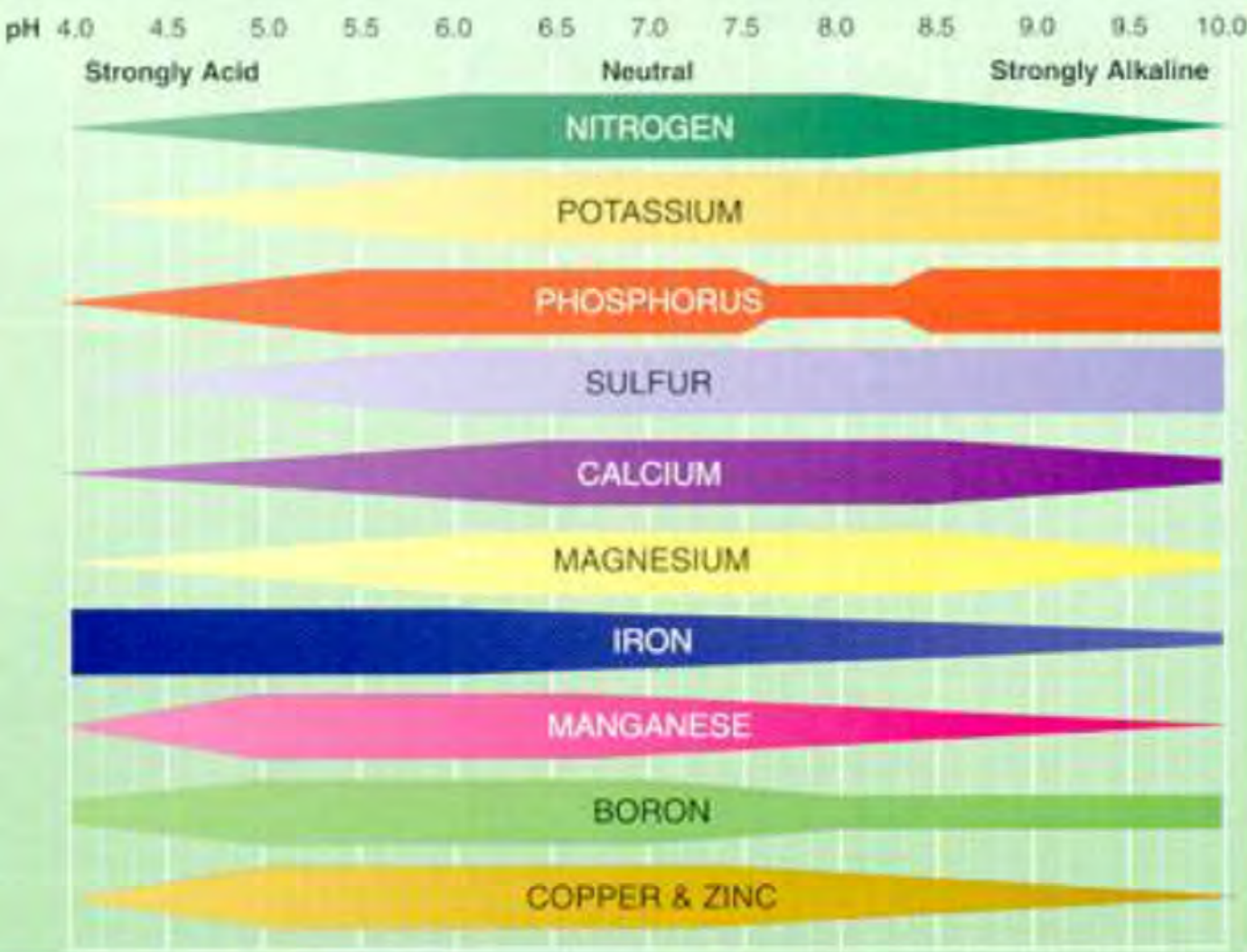
Air
25%

**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 (eg. 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



A glass jar filled with sliced cucumbers and pickling liquid, with another jar in the background.

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

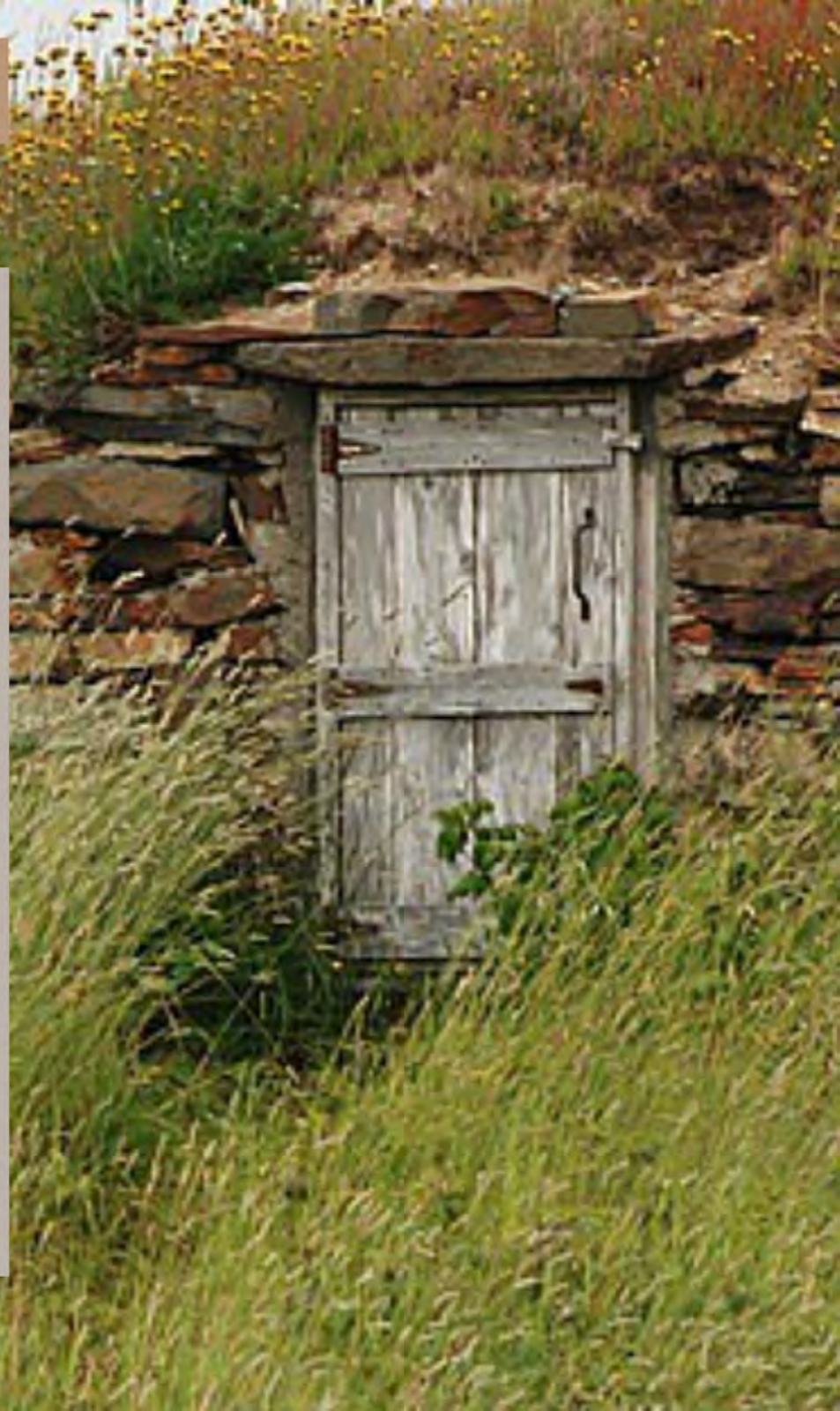
Keep these cold, like roots, but not so humid. Use onion bags or airy boxes.

Cabbage

Cold and humid like roots.

Squash/pumpkin

Les cool (50°-60°F / 10°-16°C) and rather dry (50%RH).



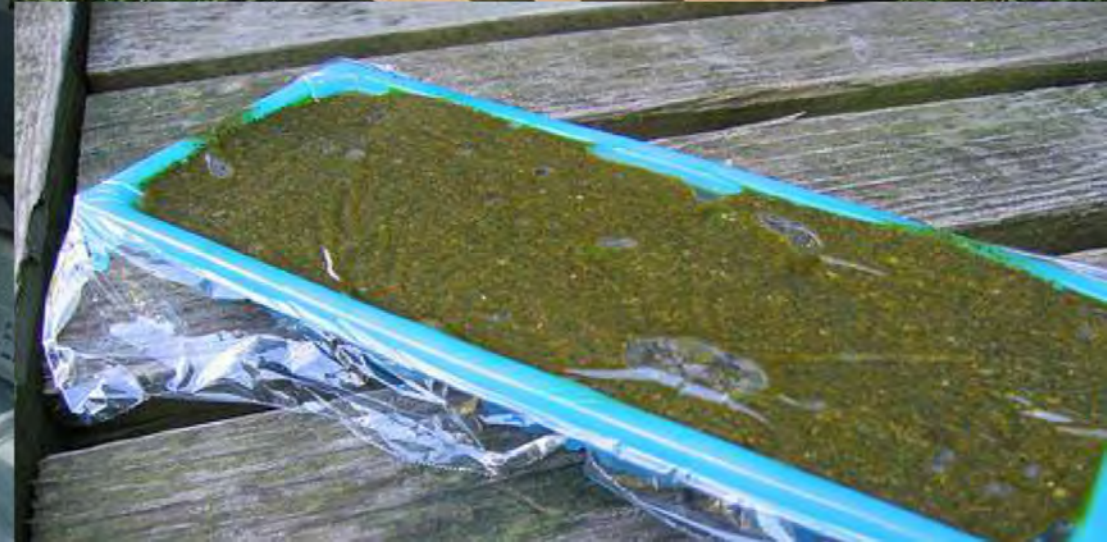
Drying: most easily suited to herbs but also can be used for fruits and vegetables



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

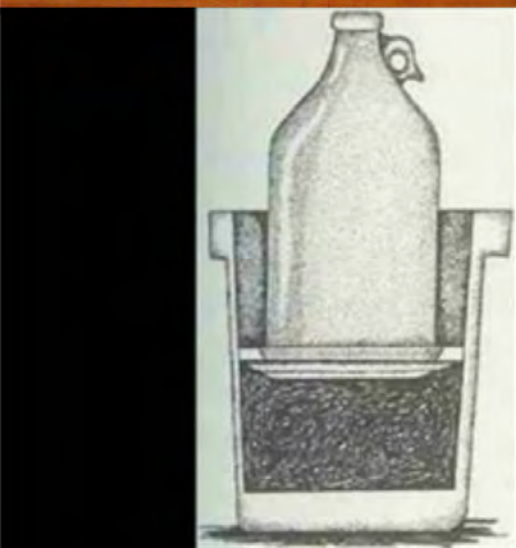
Canning tomatoes




Pickling & fermenting

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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