Edible Plant Families

- Why is it important?
- Vegetable families
- Some fruit families
- Vegetable families seed activity

What we will be talking about

- Can help you identify a new plant
- Can tell you where the seed pod will be and what the seeds will look like
- Make general decisions on culture
- Makes crop rotation easier
- Tells you what the seedling will look like
- Each family tends to have its own cultural requirements.
- Each vegetable family tends to attract certain pests and diseases

Why is it important?

VEGETABLES

Vegetable Families

Nightshade Family (Solanaceae)

Gourd Family (Curcurbitaceae)

Pea Family (Fabaceae)

Beet Family (Chenopodiaceae or Amaranthaceae)

Daisy Family (Asteraceae) (previously compositae)

Mustard Family (Brassicaceae) (also cruciferae)

Onion Family (Alliacaeae)

Carrot Family (Apiaceae) (previously umbelliferae)

Corn Family (Graminaea)

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Nightshade Family
Solanaceae

- Can be medicinal due to presence of alkaloids (atropine), the leaves may have a strong odour
- Generally frost tender annuals
- Seeds: within fruiting edible part (not potatoes)
- Cultural: Require well drained sandy loam, organic matter, pH <7
- Pests: Aphids, thrips, fruitfly (not potato) whitefly
- Diseases: Mosaic virus, damping off, bacterial wilt & bacterial spot

Characteristics

Gourd Family
Curcurbitaceae

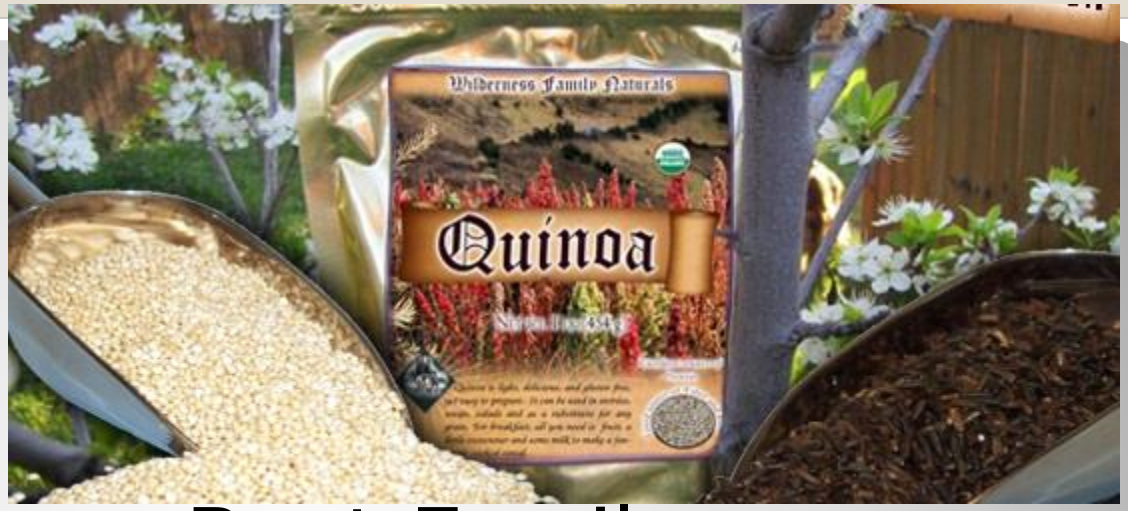
Characteristics

- Cucurbitaceae family ranks highly for number & % of species used as food
- Mostly tropical/subtropical annual vines
- Large yellow or white flowers with separate male and female flowers
- Seeds: Harvested from edible fruit
- Culture: Needs lots of water but a well drained soil, Soil pH should be no lower than 5, Magnesium is an important nutrient
- Pests: Pumpkin beetle, leaf eating ladybird, whitefly
- Diseases: Powdery mildew, various leaf spots

Pea Family *Fabaceae*

- Fabaceae fix nitrogen from the atmosphere in nodules on the roots by symbiotic bacteria, they may require inoculation of the correct bacteria to be successful
- Seed: The fruit grows into a pod containing the seeds
- Culture: Beans are warm season grower, peas are cold season growers. have dwarf and climbing forms. Well drained soil high in organic matter, not highly acid.
- Pests: Weevils, green vegetable bug
- Diseases: Downy & powdery mildew

Characterisitcs



Beet Family
Chenopodiaceae

Characteristics

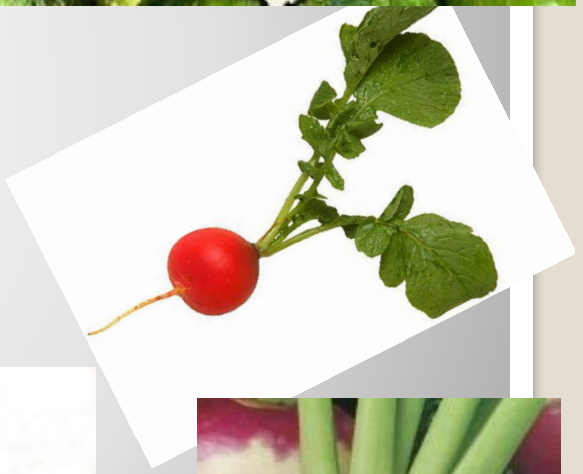
- Sugar beet produces 20% of the worlds sugar with beets containing 10% - 21% sugar
- Chenopodiaceae are biennials usually grown as an annual
- Seeds: Produces seed clusters holding 3 – 5 seeds
- Culture: Can be sown all year except for winter, they like a well drained soil that is not too rich with pH of 6.5 – 7.5, wind as well as insect pollinated
- Pests: Vegetable weevil, snails when young
- Diseases: Leaf Spot and Beet rust (remove & burn leaves)

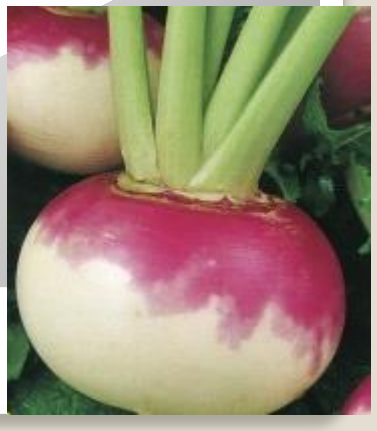
Daisy Family
Asteraceae

- Largest family of flowering plants and may be annual, biennial or perennial, they exhibit a milky sap and are usually herbs or shrubs
- Seeds: On seed heads with “parachutes”
- Culture: Most well drained soils, slightly acid to slightly alkaline, don’t sow below 10mm deep
- Pests: snails, Rutherglen bug
- Diseases: Bacterial soft rot

Characteristics

Mustard Family *Brassicaceae*





Characteristics

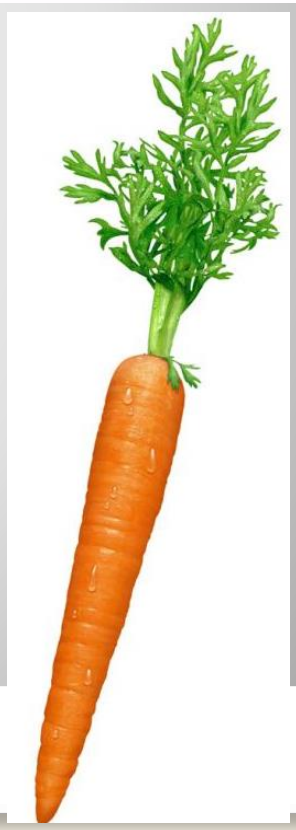
- Strong smell/taste with mustard overtones and can be bitter, on average 105kg of brassicas are consumed per person per year
- Seeds: Characteristic elongated cylindrical seed pods and small light brown to black seeds
- Culture: Neutral to slightly alkaline soil, well drained with good organic matter, extra nitrogen for leaf crops
- Pests: cabbage moth and cabbage butterfly, cabbage leaf miner, aphids
- Diseases: clubroot, whiptail, boron deficiency

ONION FAMILY *Alliacaeae*

Characteristics

- Strong characteristic smell/taste, should not be grown near legumes due to antibacterial effects of sulphur compounds
- Seeds: Generally biennial, seeds/flower head is borne at the end of the leaf
- Culture: Too rich a soil results in leaf growth not bulbs, pH 5.5 – 6.5 is best, well drained soil. They don't compete well with weeds.
- Pests: aphids, onion thrips
- Diseases: neck rot, black rot downy mildew

Carrot Family Apiaceae



Characteristics

- Queen Anne's Lace is wild carrot. Apiacece seeds can have concentration of essential oils, carrot greens are edible
- Seeds: Generally biennial flowers/seeds are borne at the end of umbels, some used in cooking
- Culture: They are slow growers requiring a long growing season, fresh seed is a must and loose friable growing soil with pH 6 – 7. They don’t compete well with weeds
- Pests: Vegetable weevil, aphids, root knot nematode
- Diseases: various bacterial rots,

Corn Family Gramineae

- Wild corn does not exist but cultivated corn is the most grown crop in the world
- Seeds: allowed to dry on the cob then harvested
- Culture: Corn is a gross feeder needing a slightly acid to neutral soil which is fertile and well drained soil with a regular water supply.
- Pests: Corn ear worm
- Diseases: Maize dwarf virus, leaf blight

Characteristics

Vegetable Families

Nightshade Family (Solanaceae)
Tomatoes Eggplant capsicums Potatoes Tomatillos Raspberries

Gourd Family (Curcurbitaceae)
Cucumbers Zucchini Melons Pumpkins Squash

Pea Family (Fabaceae)
Beans Peas Clover Fenugreek Alfalfa Peanuts, lentils

Beet Family (Chenopodiaceae or Amaranthaceae)
Beets Quinoa Spinach Swiss chard

Daisy Family (Asteraceae) (previously compositae)
Endive lettuce Radicchio Chicory, Salsify,

Mustard Family (Brassicaceae) (also cruciferae)
Arugula Asian greens Broccoli Brussels sprouts Cabbages
Collard greens Kale Kohlrabi Mustard greens Radishes Turnips

Onion Family (Alliacaeae)
Onions, Chives Garlic Leeks Shallots

Carrot Family (Apiaceae) (previously umbelliferae)
Carrots Celery Cilantro Dill Fennel Parsley Parsnips

Corn Family (Graminaea) Dent Corn, Sweet Corn, Pop Corn minicorn

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FRUIT

Fruit Families

Pome Fruits (Pomoidae)

Stone fruits (Prunus)

Citrus fruits(Citrus)

Mulberry(Moracea)

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Pome Fruits *(Pomoidae)*

- Trees are deciduous and have a dormant winter period that requires cold temperatures for the tree to properly break dormancy in spring
- Fruit: Generally ripens in autumn, compatible cultivars are required for cross pollination
- Culture: Mulch deeply, fertilise in early spring with high potassium fertiliser (wood ash, blood & bone) prune in winter, water is crucial soon after flowering and early summer
- Pests: Fruit fly, codlin moth, wooly aphid
- Diseases: scab, bitter pit, bitter rot, boron deficiency, water core

Characteristics



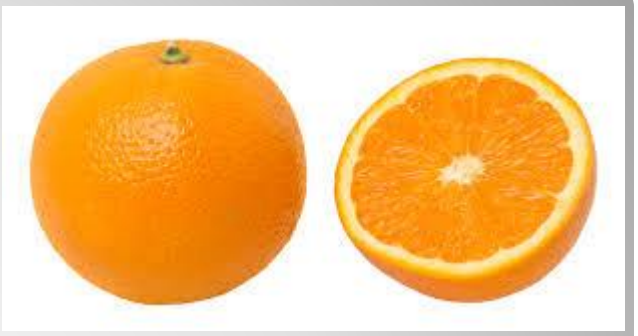


Stone Fruits*(Prunus Sp.)*

- Trees are deciduous and have a dormant winter period that requires cold temperatures for the tree to properly break dormancy in spring
- Fruit: Generally ripens from spring to autumn, depending on cultivar, compatible cultivars are required for cross pollination,
- Culture: Trees require light, free draining soil Mulch deeply, fertilise in early spring with high potassium fertiliser (wood ash, blood & bone) prune in winter
- Pests: fruit fly, aphids, scale, mealy bug
- Diseases: Leaf curl, brown rot, shot hole

Characteristics






Citrus Fruits*(Citrus Sp.)*

Characteristics

- Citrus require a warm to hot climate requiring a long warm summer for the fruit to ripen, frosts can kill young growth
- Fruit: Can bear all year round depending on variety
- Culture: They require a deep, well drained soil slightly acid to slightly alkaline, they require nitrogen, potassium and magnesium, mulch well but keep away from the trunk
- Pests: scale, bronze orange bug, spined citrus bug, fruit fly
- Diseases: phytophthora root rot, collar rot

Mulberries and Figs *(Moracea)*

Characteristics

- They are deciduous trees which require pruning during their dormant time and have a low chilling requirement (300 hours)
- Fruit: early spring to mid summer
- Culture: They prefer a well-drained neutral soil, preferably a deep loam
- Pests: fruit fly, fig blister mite
- Diseases: anthracnose, fig rust, fungal leaf spot and bacterial leaf spot

Fruit Families

Pome Fruits (Pomoidae)

Apple Pear Medlar Quince Loquat

Stone fruits (Prunus)

Peach Apricot Cherry Nectarine Plum

Citrus fruits(Citrus)

Orange Grapefruit Mandarin Lemon Lime Pumelo Citron

Mulberry(Moracea)

Fig Mulberry (*alba, nigra, rubra*)

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