

Ray Broughton - Greenhouses and Vegetables

Used to work at Sparsholt College

FYI: Yellow sulphur was banned in Aug

For up to date info on pesticides check on the internet – the BBC is a good source of info on chemicals available for the home gardener

New aluminium greenhouses with H glazing are far superior

80% of heat loss in a greenhouse is at the bottom. Insulation around the bottom is most effective.

Ventilation by way of window and louvres should equal 25% of the floor area.

If buying a greenhouse, buy one with window. Sloping sides are v useful as it helps make optimum use of winter light so good for growing winter veg.

Louvres in greenhouses should be at the top part of a side, not at the bottom.

Munstead greenhouses – v expensive – have multiple angled sides so make good use of sunlight all year round.

In a greenhouse built against a wall, mirror glass is a useful source of indirect light.

New growing lamps coming on the market use digital lights to supply blue and red light and can also control which light the lamp lets out. V cost effective - £90 for a set. German product. Search online for 'Digital grow lights'.

- Red light causes plant to become taller
- Blue light causes plants to become stocky

Polythene creates an atmosphere that many plants don't like – too humid.

North frames – cold frames pointing north – very useful as don't suffer extremes of temperature so v good for over wintering.

Railway sleepers – if from Poland may contain bacteria as different regulations about allowing water waste onto the track. Old sleepers may get tar coming out – get 1/3 milk 1/3 salt 1/3 flour to make a paste, paint it on, on a hot day, it globulises the oil and draws it out which you can chip off.

Mellinex is superior to bubble wrap – lets more light in and not as much algae develops.

Acrylic panes are clearer than polythene but more brittle – susceptible to footballs!

Shading on the inside of the greenhouse simply increases humidity and temperature as the heat has already entered the greenhouse – if you want to cool the greenhouse, the shading must be on the outside.

Thermometer – useless in a greenhouse, no point having one as affected by direct light which gives a false reading. Will only give an accurate reading at night when there is no direct light.

If watering from below, it drives the air out of soil – it will kill plants, so leave a couple of days without water. If you put feed in there, you are wasting money – always water feed from the top.

Sowing seeds then dunking the seed tray in water simply injects fungal diseases into the compost. Will also decrease oxygen to about 2% and plants need about 60%. Simply water the compost a couple of hours before sowing. Squeeze into distinct lumps then crumble again.

Why do seedlings become leggy – it's not because of shortage of light - winter and early spring is best light of all – not much of it but good quality. They become leggy because of a shortage of carbon dioxide. 0.04% in the air. Commercially they burn propane gas to release CO₂.

In Oct make a CO₂ enhancer, get a plastic / Tupperware container – fill with horse manure fresh and lumpy not steaming, cling film over (wear gloves when dealing with manure as fresh manure toxic) tie with string then put 6 holes in film. Put under benching and it will make a real difference to seedlings in spring. Won't produce a smell. Do not use chicken manure or cow manure as has to be lumpy with low ammonia content. Horse manure is ideal. 10" container will serve a 6 x 8' greenhouse. Just do multiple containers for a larger greenhouses.

Pots – conversion pots have 2 sets of holes set at different levels so water can drain properly. Malt Vinegar – slugs hate it so can smear some on the bottom of pots and keeps slugs away. Put it on fleece and slugs avoid.

Salt glazed pots don't breathe – need non-glazed to let plants breathe

Slow watering is more efficient than fast watering. Trickle watering is better than a hose pipe or watering can.

Smart seed – not yet available – will be introduced next year – involves 3 substances added to the coating around the seed, nutrient, growth enhancer and water gel so they don't dry out preventing erratic germination.

Works v well with parsnip where it is not unusual to get only 30% germination, improves to 90%.

Tomatoes –

Mosaic virus – if the end 2 leaflets point towards the stem, it is a virus so get rid of the plant.

Blight - If you have a smart phone, can get a Smith period App, info is post coded so can warn when blight is in the area. If there is a Smith warning, cover with fleece for several days and it stops plants being infected with blight.

Blossom end rot is a calcium deficiency. Water is a part of the cause as it carries the calcium. Cover the toms with fleece above the bottom 2 trusses. Doesn't prevent pollination as tomatoes are self-pollinating.

Hose pipes – don't store it in the greenhouse as the plasticiser gives off a vapour and destroys chlorophyll.

Keep tools clean – can clean secateurs in tomato ketchup! If lose them in the compost heap and the blades rust, don't try to sharpen secateurs – put tom sauce on for 3 days.

Hedge trimmer – put tom ketchup along blade, put in bin liner, leave for 3 days, wash off with warm soapy water and dry quickly to prevent blade selectors from rusting. Don't lubricate with oil as it attracts dirt. Many manufacturers recommend WD40 but it evaporates v quickly. Sewing machine oil is one of the best to use.

To make tulip flowers last longer, cut out the central female organ from the flower to prevent pollination, then the flowers can last about a month rather than 1 week.

Blue sticky cards in greenhouses from Oct until end Feb will attract Thrips away from the plants. Must remove in Feb as bees are attracted by blue too.

Clean out water butts as full of bacteria. Tip out muck from bottom of water butts, hose out to clean. Don't tip it onto grass as will scorch.

Harlequin ladybird are natural in the UK, has a 'W' marking on its head.

'2 spot' lady birds are a very good natural predator. Can buy them.

Potato fertiliser – powder fertiliser being phased out and replaced by granules – granules take longer to give out nutrients.

Liquid fertiliser feeds instantly but doesn't stay in the soil.

Compost tea – doesn't rate it – how do you know what nutrients involved? He does rate nettle liquid feed however.

How to make Nettle liquid feed – Do this in May - gather stinging nettles before they flower. Break up. Put fleece in bottom of a 25cm pot then put in a shallow layer of aquatic stone. Must be aquatic stone not ordinary stones. Force as many nettles into the pot as possible but not quite to the top of the pot. Fill a 7.5cm pot with coarse grade vermiculite then empty it over the nettles to make an even layer. Place a layer of fleece on the vermiculite. Put the 7.5cm pot in the centre of the fleece. Cover the fleece around the 7.5cm pot with aquatic stone. Fill the 7.5cm pot 1/3 full with aquatic stone. Put the whole system into a large container to retain water. Pour water into the 7.5cm pot. Keep wet for 2 days. The water that seeps through the nettles into the container is the liquid feed, dilute this 1 to 20. Unlike other compost teas, there should be no smell.

ZP — Take cuttings from the centre growth of a plant rather than tips or bottom. This is called zonal positioning. Plants in garden centres can be marked ZP which indicates it is a zonal position plant.

6pm – spray flowers in advance of frost – gives off latent heat and prevents frost damage

SB plant invigorator – mostly milk – need to buy the right grade. The finer the spray the better, follow the dilution rates.

Leek or onion rot – Alyssum plants will absorb the fungus and the flowers turn black – grow in pots then plant in the ground, when flowers go black, take up the pots.

Don't dead head marigolds, it's the dead flowers that keep away the white fly.

Rhubarb – new cultivar 'Raspberry Red' is naturally sweet. Dig up in Oct, wrap until early April, then plant. This keeps the crown cold then breaks dormancy which prevents flowers and get fast growth.

Always know where your manure comes from – can be full of weed seed or herbicide.

Block planting is very productive. More efficient than planting in rows with lots of space round each plant.

Prevent Scab – wrap seed potato in Daily mirror or The Sun and wet the paper then plant it – this stops the scab forming which it does in the first 3 days after planting. Then the paper rots. These publications use non waxed paper, other publications use waxed paper which won't rot.

Don't chit, helps disease develop and it stresses the potato.

Cover planted potatoes just below the surface and cover with barley straw. Roots grow in soil, tubers love the warmth of barley straw, slugs and wire worm don't like the heat. Can leave the tubers until Nov. Mice may move in but don't touch the potatoes.

Watering in a greenhouse if going away for a week: Flood benches are good way of watering in a greenhouse – floods to about 1/4" high and then stops so it drains. Can use a solenoid so can control with a phone. Unit costs about £110. Uses solar power.

1/4" capillary matting is good. Clay pots on capillary matting will need something to work as a wick.

Flooring in a greenhouse. If not sure whether you are going to dig out soil, use New Horizon growbags – soil based – will support a wide range of crops. Put polythene over – white so it is reflective which gives better light absorption. To sterilise at the end of the year – now is a good time - cover with vermiculite, spray on Jeyes fluid, cover with polythene and the vapour is what kills the bugs. Can use the same grow bags for about 3 years.

Good soil suppliers - Rothy Brothers – who were bought out after going bankrupt so brand name still going. Also Surrey Loams.