



CROP PROTECTION

cold frames, mini-polytunnels and horticultural fabrics...

Protection against the weather

In spring, when the daytime temperature reaches 6°C (43°F), hardy plants start to grow. As the temperature rises, they grow faster. They stop growing – as if by clockwork – when it drops below 6°C/43°F in autumn. In the UK it is reckoned that there are – depending on the area and the conditions – 250 to 300 ‘growing days’ each year. With cover, you can extend the season by one or two weeks at each end and keep some established plants (like winter salads) going all year round. Even hardy crops, ones that normally stand out in all weathers, can benefit from a little protection. The end product will be more succulent for having been spared the worst of the weather.

– and pests

The concept of growing crops under horticultural meshes, fine enough to keep out small flying pests, has quite simply transformed life for the organic gardener.

Frost

Unheated outdoor frames and fabrics will protect against mild frosts – generally the worst we will get in London, especially in a walled south facing garden like the one in King Henry’s Walk. Though they cannot give complete protection against a hard frost, they will lessen the damage. The combination of the drying and tearing effects of icy winds combined with frost – the ‘wind chill factor’ – causes the worst damage. Crop covers warm the soil. They also keep plants on the dry side. This is helpful as wet plants will suffer more than dry ones if suddenly frozen. The effect of freezing and thawing is the ‘heave factor’. This can result in young plants without much root being ejected right out of the soil.

Rain

Heavy rain leaches nutrients from the soil. It can also wash away seeds and seedlings.

Types of cover

The cold frame is a simple bottomless box with a clear glass/polystyrene cover (known as a ‘light’ in horticultural circles). It will raise the temperature by 10 – 15° and protect against rain and wind. In winter you want your plants just to tick over gently at about 30 – 40°F. Check, when in doubt, with a thermometer. Keep watering to a minimum as uptake is slow in winter. Water in the morning so the leaves can dry by the evening.

Mini poly tunnels can be made with hoops of wire covered with polythene sheeting tied at both ends and pinned or weighted down each side. They warm the soil before sowing and protect young plants from the vicissitudes of winter weather. New fabrics,* that let in water and protect against pests, make them even more useful. You can buy cheap kits to cut down on the work.

Cloches can be made of 5 litre water bottles with the bottom sawn off (a bread knife is a good tool for this) and the top left off for ventilation. You can also buy decorative cloches like the Victorian bell cloche or the barn cloche

NB Coldframes, polytunnels and cloches need to be managed manually. When the weather warms up they need to be opened to the air.

Fleece is a light-as-air fabric that lets in light and water. It can be draped over whole crops (weighted down with stones or soil) as a 'floating mulch', throughout the entire growing period. As well as giving protection against winter weather, it will prevent pests getting through. The new double weight is much stronger than the standard fleece.

Micromesh is very fine – 0.6mm gauge – small enough to keep out cabbage root fly, carrot fly, white fly, onion fly, flea beetle, vine weevil and aphids, bees, wasps, cutworm and other caterpillars, moths and butterflies.

Aerated polythene is a lightweight polythene sheet with perforations of 20mm (0.8in) in diameter – to allow easy access for pollinating insects. This means that you can leave the polythene on your crops throughout the season, without the need to remove it for pollination. The perforations allow air and moisture to circulate freely around the plants, keeping them healthy and reducing any risk of mildew or disease.

Enviromesh protects against birds, rabbits, cabbage root fly, cabbage root fly butterfly, pea moth, cutworm, cabbage whitefly and many species of aphids. Lasts 7 – 10 years. A brilliant product.

Polystyrene sheets can make the difference of a vital degree or two around the freezing mark. Just lifting pots up onto a sheet can make the difference. You can protect container grown plants in polystyrene boxes, courtesy of the fishmonger or greengrocer, with a sheet of perspex on top. Alternatively, it is not difficult to construct a box yourself to the right size for your container. Polystyrene can be carved up as easily as cheese and glued or taped together.

Suppliers

*Haxnicks, Beaumont Business Centre, Woodland Road, Mere, Wilts, BA12 6BT. 0845 241 1555, <http://www.haxnicks.co.uk/direct>. Producers of the double thickness 'Ecogreen Fleece Blanket'.

Agralan, Gardening Naturally Ltd, Field House, Baunton Lane, Cirencester, GL7 2LN. 0845 680 0296, <http://www.gardening-naturally.com>. Producers of Enviromesh.

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