

Growing with Schools

FAQ: One of the most frequently asked questions when setting up either a horticultural or animal enterprise is:

What do we do at Weekends and Holidays?

When undertaking any enterprise involving plants or animals the inevitable question arises on coping 24/7 – this is especially true in schools where teachers (in the state sector) seldom live in close proximity of the school. Weekday, term time maintenance usually presents few problems. Weekends and, more especially, holidays are often more difficult. It can be devastating for pupils to return to find their plants shrivelled and dead, or nearly so, after a hot weekend. What strategies can be adopted to mitigate the need to live at school?

Set out below are a few suggestions which may help resolve the dilemma.

Ways of reducing water need

- **Mulching:** by covering the beds with a thick layer of organic material such as weathered shredded or chipped wood, compost or lawn mowings water loss from the soil is much reduced. A weed blocking membrane also reduces water loss in addition to reducing weed growth (weeds compete for both water and nutrients). If the membrane proves unsightly it too can be covered by a mulch.
- **Use large pots and containers:** (rather than grow bags/hanging baskets) –the smaller the volume of compost/soil the quicker the material dries out; by using larger bags such as tree planting bags or even builders' bags a much larger volume of soil can be used which is less susceptible to drying out. Combine this with covering (mulching) the surface of the soil.
- **Granules/water slices:** when planting up pots or hanging baskets the use of water retaining granules or water retaining slices (available from garden centres) can be used – these, as their name suggests, hold water that can be released slowly through the compost to the plants over a longer period than through the compost alone.
- **Water well to encourage deep roots:** when watering plants, encourage pupils to water the root area and picture the water trickling down to the roots. If only the surface of the soil is watered or- worse still- only the leaves are wetted, the plants will develop a surface network of roots (rather than deep ones) which are much more prone to drying out. Where possible, water plants at the soil surface rather than over the leaves. An upturned drinks bottle with the base cut off and its neck

embedded in the soil, allows for more accurate and speedier watering of pots, grow bags and containers.

- **Move pots into sheltered/shaded areas:** the difference in temperature between a shaded area and one in full sun can be many degrees – if possible avoid putting small planters and hanging baskets in a south facing situation unless watering is not a problem. Try not to water during the hottest part of the day in summer as you will lose much more water to evaporation and the sun's heat may cause the water to scorch the plants' leaves.
- **Capillary matting:** in greenhouses use capillary matting or a capillary bed (sand). Using a simple storage bag (reservoir) header system – this will also raise the humidity in the surrounding area keeping the plants' stomata (pores) closed and reducing water loss. Capillary matting can hold up to 10 litres per square metre.
- **Drought-tolerant plants:** some plants, for example: Mediterranean herbs, can cope with a dry spell or two very well and can be left for longer between watering than the heavy croppers such as tomatoes and pumpkins. Direct your energies and resources accordingly!

Physical help

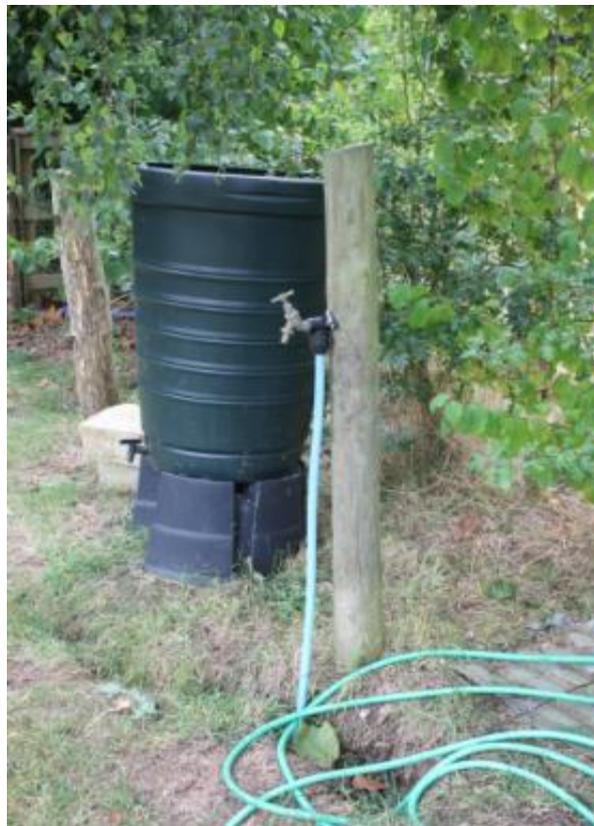
- **Caretaker:** many site managers (caretakers) live on site and may be willing or at least be prevailed upon to water or turn a tap on for a period of time if a semi-automatic irrigation system is installed.
- **Technician:** most secondary schools have technicians – weekend watering could be part of their job description with the correct remuneration package!
- **Good Neighbours:** once a horticultural enterprise has been established, a near neighbour to the school or a parent may be willing to water over a weekend. If several volunteers can be gathered a rota can quickly be established. It should be noted that an outside tap/water supply should be present so that there isn't a need for access to school buildings. Consider a lockable tap to reduce unauthorised use.
- **Students:** there may well be volunteers among the student body – this is especially so in secondary schools.

Students should always have telephone access to an adult who is willing to be contacted in case of emergency.

- **Local organisations:** Cubs, Brownies, Scouts etc may be willing to take responsibility for, say, a week during holidays: they can learn new skills, develop a sense of responsibility and perhaps share in some of the harvest.

Semi automation

- **Cans:** watering cans are very effective providing there are not too many plants involved and the tap is not too distant from the garden – water is heavy, especially for young children; it is useful to have cans of differing sizes available. Sufficient water needs to be given to the plant and the process not rushed. Small seeds and seedlings should be watered using a fine rose; larger established plants and trees can be watered without a rose.
- **Outside tap:** access to an outside tap and hose pipe speeds up the watering process considerably.



- **Hosepipes:** soaker hoses attached to a conventional hose can be very successful. It is a pipe that is porous and will ooze a trickle of water alongside a row of plants/seeds. The water is carefully targeted. It is a very flexible pipe so can be coiled around plant stems, pots and bags etc. The pipe can be purchased in several diameters. Leaky hoses (ordinary hose pipes with tiny holes punctured along its length) are similar but a little more rigid. These can easily be made out of an ordinary hosepipe.



- **Drippers/jets:** various styles of jets and sprays are available depending on requirements; they range from mist sprays to systems that would water a cricket pitch! Some systems are available with individual drippers for pots or plants. These systems are particularly useful if only a limited number of plants require watering. There are non-mains systems available that water either from a small reservoir or, for larger quantities, can be run from a water butt.
- **No-mains watering:** automatic systems can be set up utilising water stored in rain butts – these are usually based on a combination of conventional hoses connected to the butt and the soaker/ leaky pipe system.



- **Water slices/granules:** (hanging baskets) – see above.

Fully automated

- **Water computers:** provide the ultimate in automatic watering systems. They are attached to a tap (usually battery powered but mains powered versions are available) and can be programmed to operate from once a week to 4 times per day and to water for between one and six hours. Most have a manual setting which, at the press of a button, simply turns the system on for a set period – for example, 2 hours. Water computers can be purchased with a water sensor that can be placed in the soil – this can over-ride the automatic operation, for example, if it has rained sufficiently. Avoid timing it to water in the middle of the day in summer, when it is too hot and may damage the plants. This option is the most expensive.



Livestock

Many of the same principles apply if livestock are kept in school. Ideally, livestock should be inspected at least once per day with food, water and the animals' well being checked. However, if poultry are kept, food and water could be provided that will enable them to last over a weekend, using automatic dispensers. Most poultry drinkers work on a simple vacuum system: when the vacuum is broken, water is released through a small hole until the

vacuum is created again. If the drinker is placed on sloping ground the slope may be sufficient for the vacuum to fail, resulting in the water trickling away continuously and a drinker that potentially would last a week empties in a few hours (this problem can be avoided by suspending the drinker at the correct height).

Unlike watering plants, animal care should at all times be supervised or checked by experienced adults. The same principles of training groups of pupils, parents and neighbours can still apply, but an experienced adult should be present (or accessible at short notice) should an emergency, or concerns for the well-being of the animals, be raised.