



Horticultural Guide

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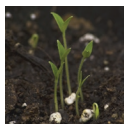
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HORTICULTURAL GUIDE FOR THE USE OF AUSPERL PERLITE & VERMICULITE

Rapid Seed Raising Seed Germination

AUSPERL vermiculite is ideal for the germination of seeds because the aeration properties combined with its water holding capacity make it a superb medium for direct contact with the seeds. AUSPERL vermiculite is ideal for capping seed trays, a fine layer of AUSPERL vermiculite helps create a humid micro climate around the emerging seedlings preventing scorching or drying out. Large and small seeds can be raised in pure AUSPERL vermiculite. Slower germinating seeds may be raised with a 50/50 mix of AUSPERL vermiculite and peat or perlite. AUSPERL vermiculite can be used as a soil improver. When applied to an outdoor seed bed it will give improved emergence and less risk of capping. In low light times fine grade AUSPERL perlite can be added to the top of the seed tray to reflect light and help improve germination rates.



Sowing Composts

AUSPERL vermiculite in sowing composts encourages quicker germination, improved seed growth, and less check when pricking-out or potting on. Sow on a well-watered and drained mixture of equal parts of AUSPERL vermiculite and peat or perlite. Alternately, add one part AUSPERL vermiculite to two parts of ready mixed seed compost, peat or all-purpose compost. The proportion of AUSPERL vermiculite may be increased to 75% for large slower-germinating seeds. Sow thinly, evenly and not too deeply. Cover lightly with free flowing moist AUSPERL vermiculite. Avoid over firming. Put the container in a warm place until the seeds germinate, then move to a light position. Keep moist with a fine drenching mist as necessary. Seedlings are easily removed from AUSPERL vermiculite compost without damage to the fine roots and they transplant with a minimum of disturbance.



Seedling Wedge Mix

AUSPERL vermiculite mixed with up to 20% of fine peat or blocking compost is recommended for

most of the wedge shaped plug module systems of vegetable and bedding plant propagation and transplanting. The 'Speeding' system of large scale peat module production, developed in the U.S., uses vermiculite in the mix to safeguard against water logging in the peat wedges, to facilitate re-wetting and to ensure the optimum air/water relationship for rapid seed germination and sturdy growth. Mixes of AUSPERL vermiculite or perlite will require the addition of lime and nutrients in accordance with specific crop requirements. AUSPERL vermiculite is also applied as a reflective surface and protective covering after seedling module trays for raising varieties of bedding, and plants and vegetable transplants.



Blocking

AUSPERL vermiculite can be used where the seed has been placed into growing blocks. AUSPERL vermiculite encourages better aeration, drainage and insulation without prejudicing the stability of the block. Germination can be further improved by covering the seeded blocks with a layer of AUSPERL vermiculite. This will also facilitate re-wetting of the block and insulate the seed from excessive temperature fluctuations.



Propagation & Potting Mixes Root Cuttings

Water the AUSPERL vermiculite and perlite/peat mix before inserting cuttings and do not compress around the base of the cutting. A 50/50 mix (with either peat or AUSPERL perlite) is generally suitable for soft cuttings on the open bench or under plastic covers (do not use vermiculite under mist). Thoroughly water the AUSPERL vermiculite before inserting cuttings and do not compress around the base of the cutting. AUSPERL perlite is ideal for growing hardwood cuttings, use 100% medium grade in a deep tray, do not over water and maintain an even moisture level.



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Papertec Pots

AUSPERL perlite is used in mixes for Papertec pots, where its lightness, high capillary action, high air filled porosity, easy rewetting and stability are valued properties. Most mixes start with a base of 30% AUSPERL perlite with a combination of peat moss, pine bark or coco peat to complete the recipe.

Micro Propagation

AUSPERL vermiculite has special properties which favour the weaning of tissue cultured plants from the test tube stage to the commercial glasshouse. Such plants may be entirely without root hairs, and they will suffer readily from water-stress. AUSPERL vermiculite/peat mixes have been found to provide a most suitable medium for plants at this stage of development. A 50/50 mix is recommended as a starting point for trials. AUSPERL vermiculite has been used successfully mixed with agar gel or with a nutrient solution and also as a rooting medium for propagules. AUSPERL vermiculite (fine or medium grade) mixed with AUSPERL perlite (P200 or P400) has also been found to be an excellent weaning medium, particularly useful where absolute sterility from organic material such as peat is necessary.



Twin Scaling Bulbs

AUSPERL vermiculite is a recommended material for this technique of bulb propagation in which small chips from a bulb are stored in a warm place in a bag of 100% AUSPERL vermiculite until a new bulb is formed at the fork of the scales. The sterile moisture retaining and insulation properties of AUSPERL vermiculite make it ideal for this application. AUSPERL vermiculite can also be poured loosely around the bulbs and tubers to provide safe storage and to protect from frost and damage during winter. AUSPERL vermiculite will not absorb moisture from inside the tubers but it does take up free moisture from the atmosphere thereby preventing storage rot.

Hydroponics

AUSPERL perlite is the best all horticultural substrate on the market for hydroponic growing; no other substrate offers the combination of capillary lift,

water retention, air filled porosity, sterility and consistency. In addition, AUSPERL perlite is reusable and easily sterilized between use. AUSPERL perlite is a stable mineral that does not breakdown or degrade like organic substrates, making the long term management of crops easier. AUSPERL perlite can be produced to meet the needs of particular crops, whether they need higher or lower air filled porosity or water retention. Most hydroponic systems can be easily adapted for use of AUSPERL perlite without expensive modifications.



Bud Wood Storage

When storing bud wood use AUSPERL vermiculite to packing material in and around your sticks, it will discourage fungal infections by removing free moisture yet retain humidity, preventing buds from drying out.

Potting Mixes

AUSPERL vermiculite in potting composts gives a very light open compost, holding more water and facilitating re-wetting, thereby lengthening the time between watering. Ideal for high water demand plants such as Hydrangeas and Ferns. AUSPERL vermiculite also has excellent ion exchange properties which absorb excess nutrients and release them slowly to the plants via the finest root hairs. A 50/50 mix of AUSPERL vermiculite and AUSPERL perlite is widely used for greenhouse pot plants and hanging baskets while a 25/75 mix is generally suitable for bedding plants and house plants. To improve existing compost add 20-25% of AUSPERL vermiculite and mix thoroughly. As the nutrient content in the original compost has been diluted by the AUSPERL vermiculite, earlier feeding may be required. For long term potting mixes we recommend adding 25% AUSPERL perlite to your mix, this will both lighten the pots for ease of transportation and improve drainage and water movement within the mix. Adding AUSPERL perlite will improve the long term stability of your soil mix as it is non-organic and will not break down.





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