sharpened and sterilised by dipping in a disinfectant solution, not forgetting to wash your hands and disinfect the work bench.

Cuttings may be treated with a rooting hormone if you wish – use according to manufacturers' instructions. I find that most begonia cuttings do not need this treatment, but it is a form of added insurance and should be used if cuttings do not perform well.

Always handle cuttings carefully, insert into the cutting mix as soon as possible after taking from parent plant and always dibble the hole to accept them with a suitable clean stick or other implement.

## **Cutting media**

An open textured medium is necessary for best results and there are many 'recipes' used in the horticultural world. One such is Perlite with the addition of 10% or more sharp river sand, another often used mixture consists of 50% each peat moss and sharp river sand, whilst some growers have success with Vermiculite, alone or with added sand, or just plain Perlite. The list goes on with growers the world over having their particular favourite. We use a 50/50 mix of Copra Peat and Perlite in all work at the Sydney RBG and enjoy very good results. The essential characteristic is an open, free-draining texture which allows for the rapid development of a strong root system.

## When to take cuttings

Unless you have the facilities to put cuttings on bottom heat, only take them in warm to hot weather when optimum temperatures (20° to 25°C) exist. However, adequate accessible bottom heat can be found in most homes - the top of a refrigerator for instance is always warm to hot as is the top of any floor level storage water heater. Simple heating devices are also available and do the job admirably. With bottom heat, cuttings will strike indoors at most times. Cuttings put down in very hot weather will be under extreme stress and may not perform satisfactorily.

Tip cuttings are generally taken after flowering, in late spring through to autumn, and in winter if bottom heat is available, making sure that the plant material has hardened off. Avoid taking tip cuttings early in the growing cycle as these will be too soft and will more than likely rot in the cutting medium. Cuttings may be taken from the many ever-flowering varieties at any time, again providing the cutting material is not soft and by selecting tips which preferably have no flower buds. A growing tip must be present on all tip cuttings.