



Haworthias

Haworthias, and other closely related succulent plants such as aloes and gasterias are members of the *Asphodelaceae* and originate from South Africa. Most of them are relatively small plants, forming rosettes. Some plants form clumps whilst others normally stay solitary. They all have leaves, which can be dark green in colour or in some cases a variety of other colours, in some cases many colours, and with attractive patterns and markings. In several species the upper surface of the leaf is in the form of a transparent window. The leaf shapes vary from pointed or rounded to truncate, when they look as if their ends have been cut off.

Haworthias in the main have very fleshy roots and therefore can be extremely susceptible to over-watering and root loss. It is vital therefore to use a very open and free-draining compost so that it can dry out fully between waterings. This is particularly important in late summer and early autumn when the weather may turn cooler, or at any time when the weather turns dull and cool after watering. An open compost can be achieved by adding extra grit, very sharp sand or other similar materials to your normal mix. Some inorganic materials such as pumice, Perlite and Seramis are also often used by experts as these soak up any excess moisture but retain it internally where it remains available to the roots. There are also specialist (and expensive) materials like Akadama, a type of burnt clay which

is produced in Japan and used by some of the many specialist *Haworthia* growers both there and in the UK, which can be used. Indeed some growers of the choicer or more demanding haworthias use these as their main constituent, excluding any organic (soil or peat-based) element, mixing it with materials such as heavy and/or light hard pumice and in some cases with a very soft cream pumice just to make it very slightly acidic. By volume, three parts Akadama or Seramis, one part light hard pumice, one part heavy hard pumice and one part soft pumice would be typical.

There are also some types of cat litter which have similar attributes and are used as a cheaper alternative by some growers. Beware however that not all cat litters have the required properties and some are completely unsuitable as they break down quickly, and brand names keep changing, so if you plan to try these, do ask for up-to-date information. Seramis too breaks down before too long so would require changing regularly.

Plastic pots are normally used and, particularly for plants with longer fleshy roots, deep or wide pots are preferable. Some favour black pots although they retain the heat more than some other colours. Haworthias are reasonably undemanding about where they can be grown. In the greenhouse they can be either on the staging or in reasonably good light below it, but would not be happy on a very hot top shelf, or anywhere in the greenhouse



1a

Photo: David Offord



1b

Photo: David Offord



1c

Photo: Bill Hildyard



1d

Photo: David Offord



1e

Photo: David Quail



1f

Photo: David Quail

Fig. 1 A variety of beautiful colours, forms and shapes of haworthias: 1a *H. limifolia* 'Variegata', 1b *H. koelmaniorum*, 1c *H. bolusii*, 1d *H. mirabilis* var. *badia*, 1e *H. bayeri* and 1f *H. 'Black Major'*

where there can be an excessive build-up of heat without adequate ventilation. An alpine house environment with excellent ventilation is best and preferably with some shading, perhaps to around 40%. They are also very suitable for a bright window sill. In more subdued lighting conditions, however, they would not develop to the full the attractive markings and bright colours that they are capable of producing in brighter light.

Plants grown in a very free-draining and largely or wholly inorganic mix can be watered from early in the year, perhaps once in mid-February, with watering stepped up to once or twice in March depending on the weather, in April fortnightly, and then every 10 days or so through to end of September. They could then be watered in October fortnightly and maybe once in November. It is probably best to avoid watering them in December and January unless it is very mild when you may need to water them lightly to keep them ticking over. Where a more normal compost mix is used, with a greater proportion of organic compost, the watering frequency and amount given should be reduced and even greater care exercised in duller and cooler weather. Make sure not to let water lie in the rosettes. Either water from below or around the rim of the plant. Make sure the pots are thoroughly soaked and that the water can then drain away. For this purpose the pots could be sat on gravel. Winter temperatures down to around 5°C (40°F) are fine for most haworthias, but exercise great caution in watering at temperatures as low as this.

From about mid April until the end of August it is advisable to feed your haworthias with any cactus and succulent fertiliser or general balanced fertiliser containing minerals and trace elements, as directed.

Haworthias can be propagated by offsets, seeds and leaf cuttings. If any roots break off right up to where they join the plant body, they will also sometimes produce new plants from the top of the root if you pot up the root with the top just about visible and water it occasionally. Offsets can be cut from the main plant with a sharp knife and the cut surfaces of both the parent plant and offset left open to dry for a week or so before potting up the offset. If possible, select offsets that are already forming roots. Leaves can also be taken off, dried as for offsets and potted up with the leaf base planted just below the surface, and will often produce new plants from the base. The outermost leaves at the base, some of which may be in the process of drying out, are not suitable for leaf cuttings and plumper, younger ones should be used. Seeds sown on the surface of moist compost and kept moist till the young seedlings have formed good roots will normally germinate readily on a windowsill as long as the temperature is not too high (aim for about 25°C (77°F) maximum) and the light well filtered. Make sure they are kept constantly moist during the first few months whilst the plants are still very small and, if you can provide additional heat, they can be watered carefully until well into the autumn and even over the winter. See also the seed raising information sheet for further details.

Haworthias do not normally suffer much damage from pests and diseases. Just watch out for the occasional tuft of white fluff indicating the presence of mealy bugs, and any leaf-surface damage that might indicate red spider infestation. See the Pests and Diseases sheet for details.

There is a specialist society for *Haworthia* Growers, the Haworthia Society. Please see the Further Information Sources sheet.



Fig. 2 More beautiful colours, forms and shapes of haworthias: 2a *H. venosa* var. *tessellata*, 2b *H. pumila*', 2c *H. truncata*, 2d *H. cooperi* var. *venusta* GM292, 2e *H. attenuata* and 2f *H. magnifica* var. *splendens*