Succulents for most gardens Part 1 Phedimus
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Figure 1 Seeds of *Phedimus stellatus* have germinated in a crack near the base of a horse trough - here photographed in January surviving a temperature of 38°F.
Throughout my life, lack of space in the greenhouse has prompted me to place succulents outdoors in summertime for as long as possible. I have always been envious of those living in areas mild enough to make possible the permanent planting of succulents outdoors. The purpose of this article is to share quarter of a century's experience of growing succulents outdoors in the equivalent of Zone 6 and knowing well that many of the species I am to discuss are hardy to Zone 3. By contrast, they are less likely to be successful in places as warm as Zone 8, but enthusiasts in these locales probably have a plethora of succulents in the landscape already.

The name *Phedimus* RAFINESQUE may be new to many readers or one with which they are not very familiar, but I am sure most readers will have encountered at least one *Phedimus* species, perhaps unnamed or bearing a *Sedum* tag. *Phedimus* are Old World species comprising one Mediterranean purple-flowered annual, several purple- or white-flowering species from the Caucuses, and a handful of yellow-flowered species from across cold and temperate Asia. All *Phedimus* species have flat leaves and in the main are herbaceous perennials, dying down to a rootstock or a tangled mass of stems in winter. *Phedimus stellatus* is the odd-man-out as it is a winter-growing annual. I have found it growing naturally in the Ballearic Islands (Spain), Corsica, Tunisia, the Ionian Islands (Greece), and it has been reported as an imported exotic in both France and England. Strangely, despite the fact it is generally a littoral species, it seems to withstand temperatures in its growing period of well below freezing. For me, it has survived several weeks under snow, a whole week of temperatures remaining below freezing, and minimum temperatures of 5°F, all on different occasions. In habitat it appears to be a lover of damp, shaded spots. In Mallorca, my wife and I encountered it at the bottom of a seasonal riverbed in a deep limestone gorge. On the north Tunisian coast it favors the cool shade of pistachio bushes. In cooler areas, shade seems less critical (Fig 1).

Most seeds germinate with the rains of fall, and by Christmas individual seedlings are perhaps 1.5 cm
across. This species is never a pest, despite the fact it sometimes germinates between paving stones or in adjacent pots. It is easy to replant seedlings to a more desirable spot. In spring, flowers with rather feeble, pinky white petals are soon transformed into delightful purple stars (hence the specific name) by the formation of the fruit.

The five carpels of each flower are most attractive and remain until the plants die in the summer sun, casting seeds for the next generation. Large mounds of plants create much attention from summer visitors, and if given a lot of irrigation (or a wet spring) single plants can branch and produce specimens more than 10 cm across.

One of the most common garden plants of temperate countries is *Phedimus spurius* (*Sedum spurium*) (1). It can be acquired under a whole host of cultivar names such as ‘Bronze Beauty’, ‘Carneum’, ‘Coccineum’, ‘Dr John Creech’, ‘Elizabeth’, ‘Erd Blut’, ‘Fuldaglut’, ‘Glow’, ‘Green Mantle’, ‘Leningrad White’, ‘Pearly Pink’, ‘Pink Jewel’, ‘Purpurkissen’, ‘Purpurteppich’, ‘Raspberry Red’, ‘Rose Carpet’, ‘Roseum’, ‘Rotraut’, ‘Ruby Mantle’, ‘Salmonium’, ‘Schorbuser Blut’, ‘Splendens’ and ‘Tricolor’. The multitude of cultivated forms is not only an indication of the variability of the wild Caucasian species, but also how willingly the plant sports in cultivation. Unfortunately, sports frequently revert. In essence, it is possible to acquire clones with a great variation of size, shape and color of leaf (from bright green to deep bronze with lots of shades of purple and red in between) and with flowers from pure white right through to deep purple. ‘Tricolor’ is a wonderful American tricolored, variegated sport (Figs 2, 3).

This species is excellent ground cover, perfect for green-roofs and rather rapid. It prefers impoverished soil and good drainage but is so un-fussy it will grow almost anywhere. Therefore it could become tiresome each fall when it may need severe pruning. I have had a fair number of enquiries on the Sedum Society website concerning stressed plants of this species. Generally the enquiries have been from gardeners in Prairie States. The problems have always been heat related. As *Phedimus spurius* is native to relatively high, rainy areas in the Caucuses, the summer sun of Kansas can be a bit much for it. My suggestions of covering beds with a garden fleece for several weeks plus additional irrigation did, in all cases, revive the plants.

*Phedimus stoloniferus* is in many respects similar to the previously discussed species, but it is fickle and must be kept cool, damp and shaded. Flowers are a fantastic purple but very different in structure to those of *P. spurius*. The fruit are very like those of *P. stellatus*. If you have a cool, damp area of the garden where little will thrive, this species could transform it. It has been reported (2004) (2) to have escaped in the wilds of Scotland where, in areas of very high rainfall, it grows in full shade. (See Figure 4.)

Fröderström thought the *Sedum kamtschaticum-Sedum aizoon* complex to be a single highly variable species (3). Today modern taxonomists recognize 17 species (4). The latest DNA studies show the complex to be more remote from Sedum proper than was first thought. *Phedimus aizoon* comprises non-creeping plants that develop each year from woody rootstocks. Most forms in cultivation are very tall (100 cm) and are spent by July. A perfect cottage-garden herb, this species is generally available as a bright green specimen with buttercup yellow flowers or as a much darker brown-wine colored plant with more golden flowers (‘Aurantiacum’ or ‘Euphobioides’ are two invalid names for the same clone).

In more recent years miniature *Phedimus aizoon var floribundus* plants from Northern Japan have made an impact on the rock garden trade. These plants resemble the creeping *Phedimus kamtschaticus* but the latter roots as it spreads. *Phedimus kamtschaticus*, is also available in a number of forms but all have yellow flowers. ‘Weihenstephaner Gold’ appears to be a favorite of commercial plant producers. Two spectacular variegated forms are much more rewarding and are well worth searching out (Fig 5). *Phedimus kamtschaticus* is native to the Far East from Siberia, through Korea and China and a similar *Phedimus hybridus* is a native of Western Asia.

The most recent introduction of this group is an evergreen creeping giant *Phedimus takesimensis*. First appearing in cultivation in the West in 1989, this large, semi-creeping species from the small island of Ullong-Do between Korea and Japan is the only *Phedimus* to retain almost all of its foliage throughout winter(5). Despite its maritime origin, it is from such a high altitude that it grows well in
continental Europe and in Canadian gardens under rather extreme conditions. Other recommendations include the narrow-leaved *Phedimus middendorfianus*, from the Far East, which again is available in a number of sizes and colors; *P. litoralis*, from near Vladivostok, a relatively tall plant; the small, hummock-forming, Russian *P. sichotensis* plus *P. ellacombianus* and *P. floriferus*. The latter two root as they creep and produce dense carpets of green with copious yellow inflorescences. *Phedimus ellacombianus* has the further advantage of orange fruit.

I would recommend plants from Squaw Mountain Gardens, Oregon; Intrinsic Perennial Gardens Inc. Hebron, Illinois; and from Wayne Fagerlund's Evergreen Valley in Olympia, WA. These horticulturists not only produce reasonably priced, high quality plants, but they continuously check their sources to provide authenticated taxa.

All of the species of the genus *Phedimus*, with the exception of the annual *P. stellatus*, propagate readily from stem cuttings, prefer impoverished soil and are generally pest-free. Many have the most wonderful autumn colors, so if you have a space outside, why not try some hardy succulents?

References

**Figure 3** *Phedimus spurius* 'Leningrad White'.

Figure 4 *Phedimus spurius* (left) and *P. stoloniferus* are regularly confused. Most forms of the former have larger leaves but the latter has narrow, spreading petals and spreading fruit.

Figure 5 This variegated form of *Phedimus kamtschaticus* has been in cultivation many years.