

GERMINATION OF VAVILOVIA FORMOSA (STEV.) DAVIS IN THE LABORATORY

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Vavilovia formosa (*Pisum formosum*) is a native of the Caucasus and is of interest to taxonomists because of its perennial nature and close relationship with *Pisum*. Three seeds of *V. formosa*, taken from an herbarium specimen (CN 6502) held at Southampton University, were received by the Official Seed Testing Station in early 1990. As there was no information in the literature on successful laboratory germination of this species, and given the small number of seeds available, we decided to attempt to germinate the seeds in conditions which would approximate to those in the natural habitat, in case there were any physiological dormancy mechanisms in operation.

The seeds were germinated one at a time. They were hard and did not imbibe water, so a small section of the testa was removed with a sharp scalpel round the circumference opposite the hilum. A single seed was then placed between two thicknesses of pre-wetted Whatman No 182 filter paper in a transparent plastic germination box with its own water reservoir which in turn was kept in an incubator running at 5°C without light for 16 h and 25°C with light for 8 h. Imbibition was rapid and even, and radicle protrusion occurred after 5 days, by which time the filter paper was becoming waterlogged. The seedling was therefore replanted in a small roll of paper towelling (Kimberley-Clark 501) which was kept on a filter paper pad under a bell jar on top of a Copenhagen (Jacobsen) tank. After a further 7 days the seedling was again transplanted to a medium recommended for alpine plants by the Royal Botanic Garden, Edinburgh, consisting of 2 parts John Innes potting compost No 2 and 1 part turkey grit. After 8 weeks the plant had 5 leaves and had started to produce a basal branch at the second node.

It is hoped these plants will produce seed because *V. formosa* is quite rare outside its native habitat. A well developed plant is also growing at Southampton University.