

A QUESTION OF MIX

by Jerry Copeland 18 Sept 2009

THE IMPACT OF MEDIA ON PROPAGULE GROWTH AND DEVELOPMENT IN SELAGINELLA UNDERWOODII



On 10 June 2008, after having soaked the parent plant in R/O water for 20 minutes, I removed 4 stem segments and placed each on a different substrate. I then loosely buried each and misted heavily until water flooded the surface, settling the substrate and exposing parts of the buried stems.

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MEDIA A:

- 4 parts Osmunda debris & torn up fibers
- 4 parts milled peat moss
- 4 parts sieved river sand
- 8 parts small grade river gravel
- 2 parts coir
- 1 part Sphagnum peat moss

FORMULATED BY VOLUME



Sept. 2009
Wet weight: 8 oz.
Plants appear to
be growing in
response to
drought with close
appressed leaves.



MEDIA B:
Coir



Sept. 2009
Wet weight: 6.5 oz
Heavy growth of
mosses.
Plant with stems
that have close
appressed leaves
and stems of new
growth with erect
leaves.



MEDIA C:

1 part perlite
1 part Sphagnum peat moss

FORMULATED BY VOLUME



Sept. 2009
Wet weight: 4 oz
Prior to watering
this pot was dried
out. There is an
intruding stem
of *S. underwoodii*
growing into the
pot on the lower
left. It has loosely
appressed leaves
while the plant of
the pot are tightly appressed.



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MEDIA D :

1 part coir
1 part pumice
1 part Sphagnum peat moss

FORMULATED BY VOLUME



Sept. 2009
Wet weight: 5.5 oz
Plant growth is
extensive in the
pot. Plant stems have
loosely appressed to
erect leaves.



In approaching the question of what can I plant this unusual plant in the expected response is to check out what is known and is available in books or on the net. Yet the question begs the issue of pot culture and of culture outside of the natural range of the plant. Though growing several species of *Selaginella*, I have had no idea on which is the best media for them. Even with the results of this experiment, I cannot say that the results would be applicable for all the species within the section *Tetragonostachys* that this species, *S. underwoodii*, and most of the other species I grow are grouped within.

It is apparent from the images that the media formula of D shows the best growth with that of B the least growth. Media A and C appear similar and appear to run drier. In part this is due to media depth, which settled to about 4 cm in all the pots. Watering occurred only weekly.

