Serrisa foetida

*Serrisa foetida* is often referred to as *Serissa japonica*, Snow Rose or Thousand Stars. Part of the Rubiaceae family and a common bonsai in Asia, it gets its name ‘foetida’ because of the unpleasant smell generated when bruised. It comes with different colored flowers arranged in 4-6 lobes, but the plant in the McGill greenhouse has purple/white flowers.

A planting activity in the greenhouse

Angular stem cuts at 3/5 of a cm below the node; about 8-12 cm in length were used. The lower 1/3 of the shoots and all flowers were removed. High humidity is recommended to propagate *Serissa* (McDowell, 1965; Tomlinson, 1990.) so the mist frame was used. Good substrates for the mist frame are perlite or turface. Rooting hormone known to maximize propagation potential (Tajima, 1939.), so the used of Stimroot #1 (0.1 mg L\(^{-1}\)) was evaluated. Finally, success with the hydroponic system has been observed (Yahun, 2010), so this was tested also.

Table 1: Treatments + sample size

<table>
<thead>
<tr>
<th>Medium</th>
<th>Sample (n)</th>
<th>Samples with Stimroot</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perlite</td>
<td>40</td>
<td>20</td>
</tr>
<tr>
<td>Turface</td>
<td>40</td>
<td>20</td>
</tr>
<tr>
<td>Water</td>
<td>20</td>
<td>none</td>
</tr>
</tbody>
</table>
Materials needed

- 2 Styrofoam pots
- 1 hydroponic styrofoam pot
- Stimroot #1 (0.1 mgL⁻¹)
- clippers, knife
- *Serissa foetida*
- Turface
- Perlite
- Water

Results

Table 1: Results for propagation of *Serissa foetida* by stem cuttings in the mist frame or in the mini hydroponic unit.

<table>
<thead>
<tr>
<th>Substrate</th>
<th>Treatment 1</th>
<th>Treatment 2</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>No IBA</td>
<td>IBA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perlite in mist frame</td>
<td>16*</td>
<td>17*</td>
<td>Nice roots</td>
</tr>
<tr>
<td></td>
<td>20</td>
<td>20</td>
<td>Nice roots</td>
</tr>
<tr>
<td>Turface in mist frame</td>
<td>19</td>
<td>15</td>
<td>Leaf rotting, Variable root system</td>
</tr>
<tr>
<td></td>
<td>1*</td>
<td>4*</td>
<td>Very little roots, leaf rotting</td>
</tr>
<tr>
<td>Hydroponic</td>
<td>20</td>
<td></td>
<td>Smaller roots than perlite and turface</td>
</tr>
</tbody>
</table>

A total of 20 cuttings were used per treatment

*These cuttings remained on the bench for a long time and were more prone to desiccation.

Discussion and conclusion

The results indicate that perlite, compared to turface, is a better substrate for propagation of *Serrissa foetida* by stem cuttings in mist frame. This is because a higher number of cuttings successfully rooted in perlite.

The mist frame, compared to hydroponics, is a better tool for propagating *Serrissa foetida* by stem cuttings. The roots of the cuttings in the hydroponic unit were as long as the ones from the mist frame, but way fewer lateral roots were present.
Finally, the use of Stimroot #1 did not significantly increase the rooting percentage, or the structure of the root system.

Improper propagation for softwood stem cutting will result in a lower success rate. The successful number of propagules were reduced when cuttings were left on the bench for too long.

**About me**

I am a life science student specializing in multidisciplinary studies, with a focus on animal and plant science.

**References Cited**


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