**Stem cuttings of Polyscias filicifolia**

*Polyscias filicifolia* commonly called fern-leaf aralia is a plant originating from Malaysia and western Pacific. It is a columnar evergreen shrub. It was introduced in tropical and subtropical areas over time. It is now a common indoor houseplant in temperate climate regions. The leaves of this plant are highly variable, sometimes on the same plant the leaves are different, and they are frequently variegated (Elbert, 1988).

The experiment done was to test the growth from softwood, semi-hardwood, and hardwood stem cuttings. Thus three treatments were used, 1- softwood cuttings, 2- semi-hardwood cuttings and 3- hardwood cuttings.

Each cutting was of 6 to 8 nodes, and IBA was applied to each cutting depending on the type of cutting. Stimroot #1 which contains 0.1% Indole-3-butyric acid or IBA, was applied to the softwood cuttings, Stimroot #2, which contains 0.4% of IBA, was applied to the semi-hardwood cuttings, and Stimroot #3, which contains 0.8% of Indole-3-butyric acid, was applied to the hardwood cuttings.

The cuttings were grown in a soilless mix made of 25 % perlite and 75 % Agromix (G10).

All leaves except one were removed for softwood cuttings, in order to reduce evapotranspiration and help the plant retain water as it could not take up water since it did not have roots yet.
The survival rate, presence of roots, and presence of new shoots were looked at.

Most softwood cuttings dried out. Indeed, only 5/20 softwood cuttings survived during these 2 months of growth.

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The main difference between semi-hardwood and hardwood cuttings was the shooting results. In semi-hardwood cuttings the number of cuttings with shoots was greater compared to hardwood cuttings.

The roots grew quite uniformly for all the cuttings for which roots had grown, the longest roots were 2 to 3 cm.

When planting, some mistakes were made with polarity of the stems. The shoots look quite cute but it is more work for the plant as the shoots needed to grow back upwards; they could also be entangled with the roots which reduced the growth of the shoots and made it harder for the plant to grow new shoots as well.

Another possible mistake is that the cuttings were grown on the open bench. However, the softwood cuttings could have done better in the mist frame, as they dried out on the open benches. I could also have watered them more frequently to reduce water stress.
In conclusion, to grow *Polyscias filicifolia*, I would recommend semi-hardwood cuttings as they grew both roots and shoots. Also, even if it might look cute, growing cuttings with reverse polarity negatively affected the growth of the shoots, so remember to grow stem cuttings with respect to polarity.

Acknowledgements: I would like to thank Professor Donnelly for her time and advice throughout the project, as well as Raina Fan for her knowledge in movie making.

Useful references for *Polyscias filicifolia*: