About me: I am an Environmental Biology student specializing in Plant Biology.

**Propagation of *Tradescantia spp.***

Tradescantia is a herbaceous ornamental plant belonging to the spiderwort family (Commelinaceae). The purpose of this project was to determine which medium, vermiculite, Agromix, or hydroponics would best initiate rooting in 2-node cuttings of *Tradescantia pallida* and an unnamed *Tradescantia sp.* (#2.)

**Propagation Techniques**

For each medium, vermiculite, Agromix and hydroponics, ten 2-node stem cuttings were used, with 2 replications (for a total of 20 cuttings) and polarity was respected. The cuttings in Agromix, and vermiculite were placed into Styrofoam flats and kept in the mist frame. The hydroponics unit was set up, and the cuttings were placed in the water with at least 1 cm of the stem under water. In approximately 7-10 days, rooting was checked for the cuttings in the Agromix and Vermiculite treatments by gently tugging the plants and taking note of resistance. If there was no resistance the plants were given more time to root. For the hydroponic treatment, the styrofoam floater could simply be lifted to see the roots underneath.
**Results and Recommendations**

Graph 1 illustrates the results for *Tradescantia pallida* where B represents average branch root length and P the average primary root length. The best treatment for rooting is the hydroponics system; however, the primary roots tended to be shorter in the hydroponics system (< 5 cm). It is recommended to remove the plants from the hydroponic unit as soon as they root to reduce the chance of damaging fragile plant material. The hydroponics unit was not best for shoot development; this was better in vermiculite or Agromix media.

As shown in Graph 2, where B represents average branch root length and P the average primary root length, there is no significant difference between rooting treatments for the second Tradescantia species in term of rooting success. As with *T. pallida* the cuttings in vermiculite or Agromix developed new shoots while those in the hydroponics system did not.

Overall the vermiculite or Agromix media were better than the hydroponics system for both species.
**Future Direction**

It would be very interesting to see if these two plants could be grafted to give a Tradescantia with different colored leaves and flowers.

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**Reference**


[https://gobotany.newenglandwild.org/genus/tradescantia/](https://gobotany.newenglandwild.org/genus/tradescantia/). Accessed 10 April 2018