SCAPE AND AXIL CUTTINGS OF *DROSOPHYLLUM*

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In the winter of 1985, I germinated my first set of harvested seeds from two *Drosophyllum* plants that managed to survive since the winter of 1984. They grew and flowered later over the summer of 1985/1986, i.e. December to February 1985-1986- a period of 3 months. In the bracteoles of these scapes, I found miniature plantlets which I attempted to root in late February and by May they were still alive.

Shane Pickford, a good friend of mine, didn't believe that they had rooted so I dug up a cutting and I found three roots about 4 cm long and about 0.5mm wide at the base. The original plants after flowering also produced plantlets in the axils of many of the leaves. These can also be used for taking cuttings. If left on the plant, they will become woody and eventually grow and mature into separate branches attached to the main stem.

To take cuttings, first hold the scape or mother plant with your left hand and the young shoot with the right hand. Gently tear away the plantlet with a downward stroke. (SEE SLIDE 2) Next, remove all leaves that have completely unfurled. (SEE SLIDE 3). Place plantlet in the pot so that only the unfurling leaves can be seen. (SEE SLIDE 4). The meristem portion is just under the soil surface.

ADDENDUM (THE ELECTROCHEMICAL MECHANISMS OF TRAP CLOSURE IN *DIONAEA MUSCIPULA)*

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NOTE:

Two recent articles have brought supplementary data on the electrophysiology of *Aldrovanda* and *Dionaea*. Concerning the *resting potential,* the cell negativity of —130 mV due to selective diffusion of K+ is increased to —160 mV by a K+ pump. The latter is suppressed in winter, when ATP is scarce. Most cells of the trap, including the parenchyma's, are of the excitable type, and have similar plasmalemmas. As to the *action potential,* its peak is best explained by an outflow of Cl— *and* an inflow of Ca++. The extracellular calcium entering the cell, and the Ca++ coming out of the endoplasmic reticulum (through the action of a messenger formed by Phospholipase D) must trigger the closure mechanism. The outflow of K+ following the action potential has also been demonstrated.

SOURCES:

IIJIMA, Toshio & SIBAOKA, Takao (1985) Membrane Potentials in Excitable Cells of *Aldrovanda vesiculosa* Trap Lobes. Plant Cell Physiol. 26(1): 1-13.

HODICK, Dieter & SIEVERS, Andreas (1988) The action potential of *Dionaea muscipula* ELLIS. Planta (Berlin) 174:8-18.

ED. NOTE:

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