

Henofa capillary matting hydroponic trials

Experimental trials set up in micro-hydroponic vessels based on Early Grow mini-propagators:

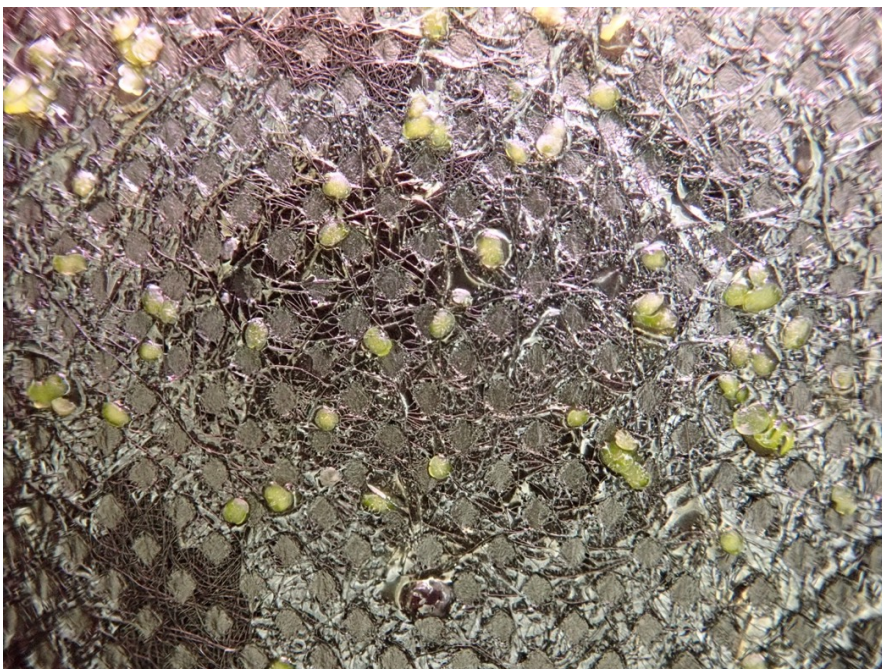
1. **Weedban50** with spreader mat and mesh support
2. **Henofa BWM 300** with mesh support
3. **Henofa BWM 300 BF** with mesh support
4. **Henofa Klavermat 300** with mesh support
5. **Henofa Klavermat 300 BF** with mesh support

Planted 14:30 02Mar2024. Henofa BWM material was markedly slower to wet than the Klavermat material.

Lights set to continuous lighting at 100%.



Weedban50 with spreader mat and mesh support



Above: after 32 hours



Above: after 79 hours

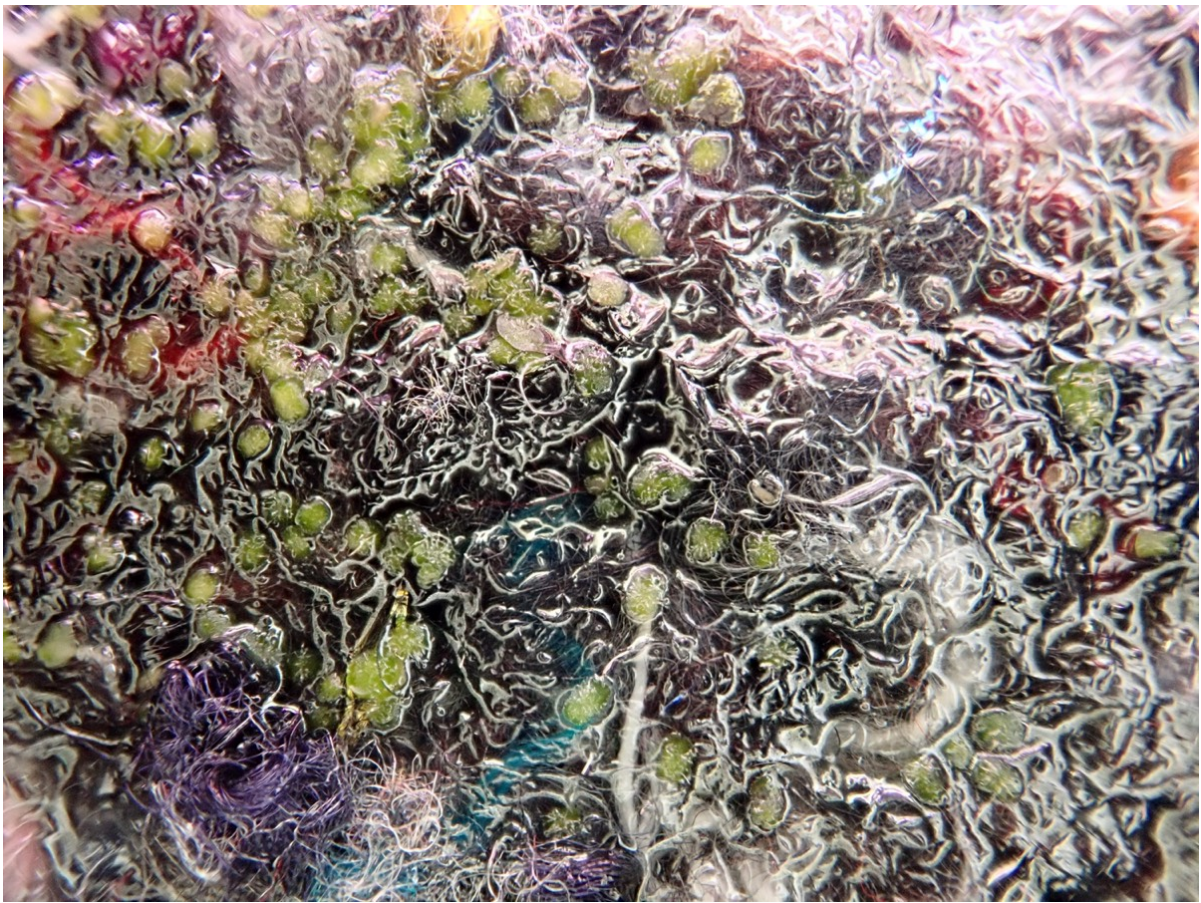


Above: after 8 days



Above: tray after 10 days

Henofa BWM 300 with mesh support



Above: after 32 hours



Above: after 79 hours

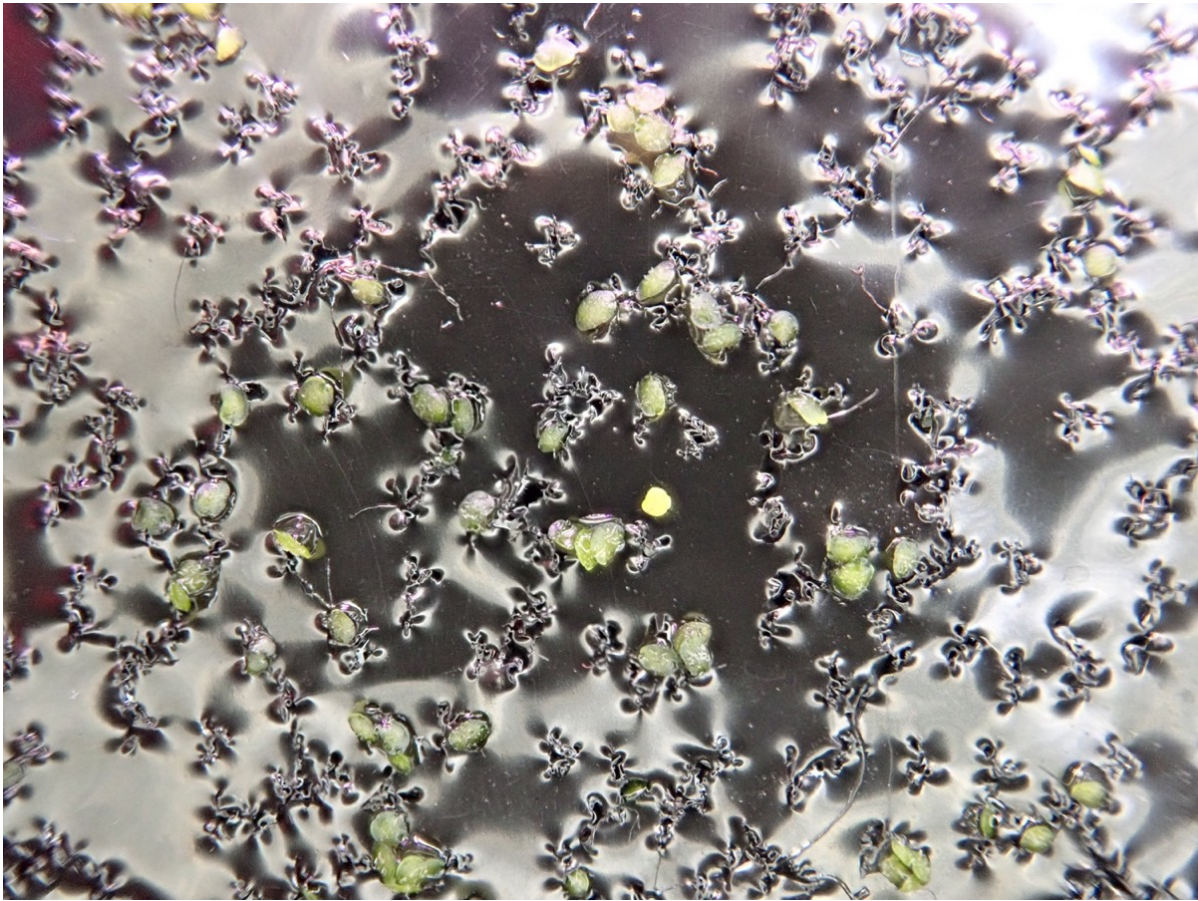


Above: after 8 days

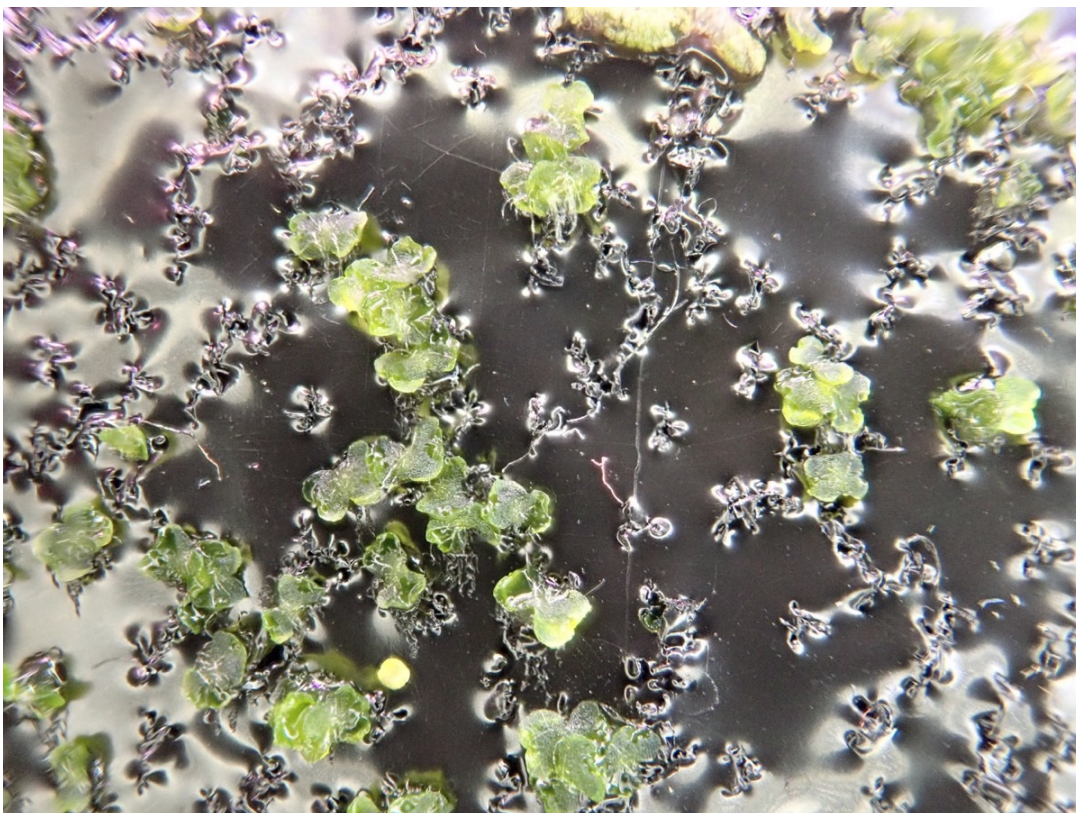


Above: tray after 10 days

Henofa BWM 300 BF with mesh support



Above: after 32 hours



Above: after 79 hours



Above: after 8 days



Above: tray after 10 days

Henofa Klavermat 300 with mesh support



Above: after 32 hours



Above: after 79 hours

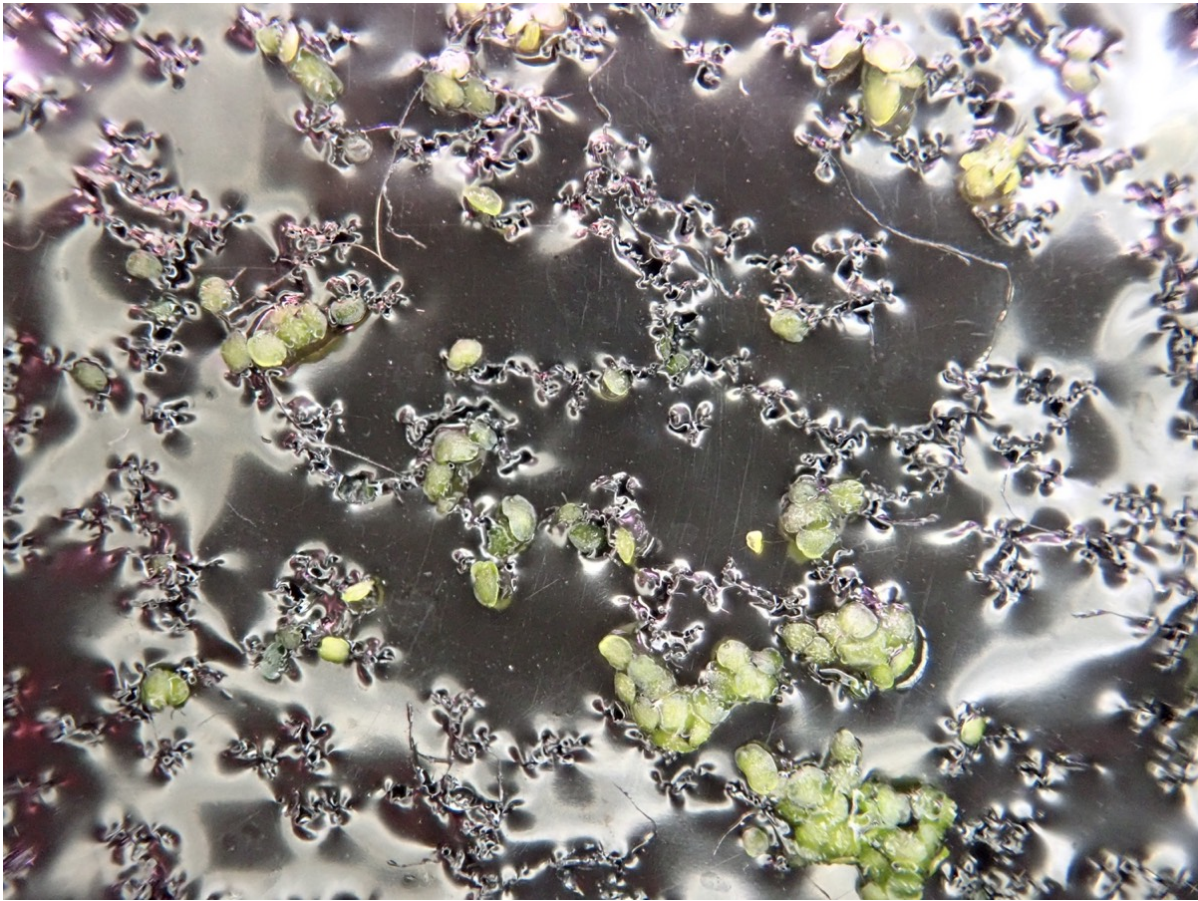


Above: after 8 days

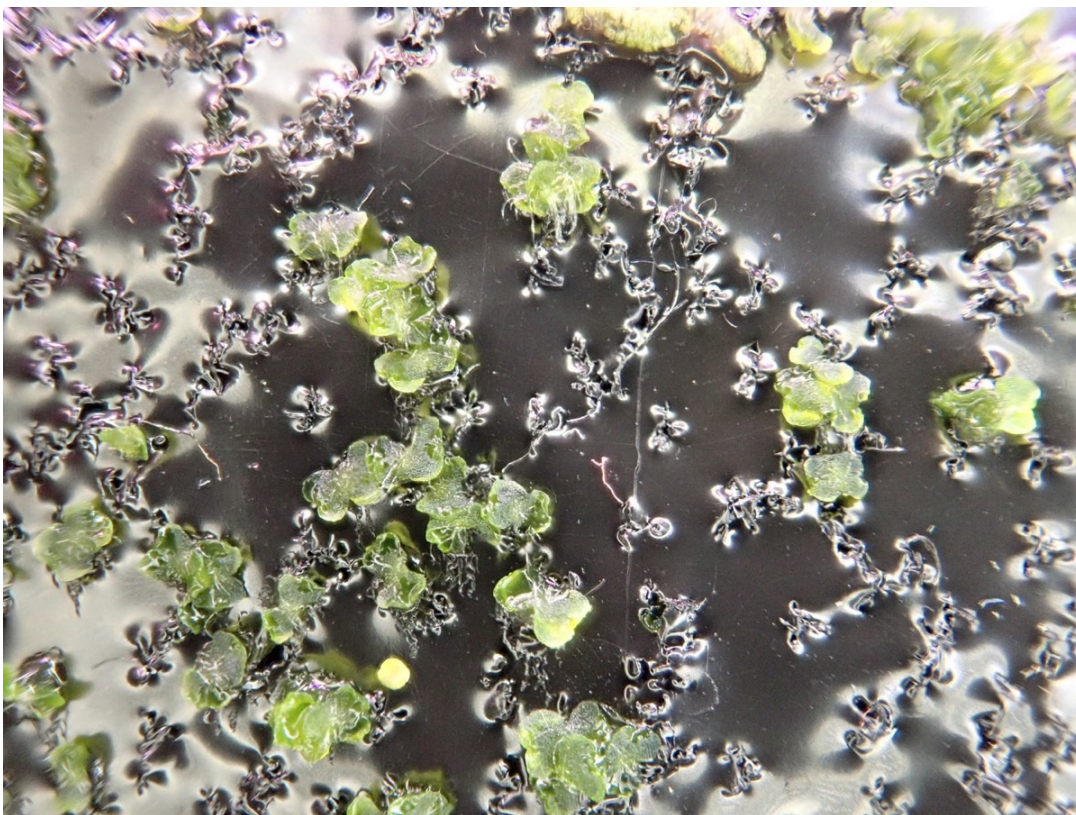


Above: tray after 10 days

Henofa Klavermat 300 BF with mesh support



Above: after 32 hours



Above: after 79 hours



Above: after 8 days



Above: tray after 10 days

Conclusions:

- The micro perforated plastic layer from Henofa is much better at suppressing surface algal growth, compared to the use of Weedban50 or the naked surface of the capillary matting. Bare capillary matting is not suitable alone, with heavy overgrowth seen under conditions that favour algal growth (high light, high nutrient level and high humidity/water availability).
- The plants on the Henofa BWM 300BF matting grew better than those on the Klavermat 300BF. Could this be due to the poorer wetting ability of the BWM 300 under layer? There was evidence of algal growth **on** the Klavermat 300BF grown plants, perhaps indicating that drier growth conditions might be advisable. (i.e. try removing lids and lowering humidity after ~4 days, after air pores start forming and rhizoid growth is advanced).
- Little evidence of algal growth on the surface of the Henofa micro perforated plastic film (unlike the Weedban50 surface).



Above: Weedban50 surface after 10 days



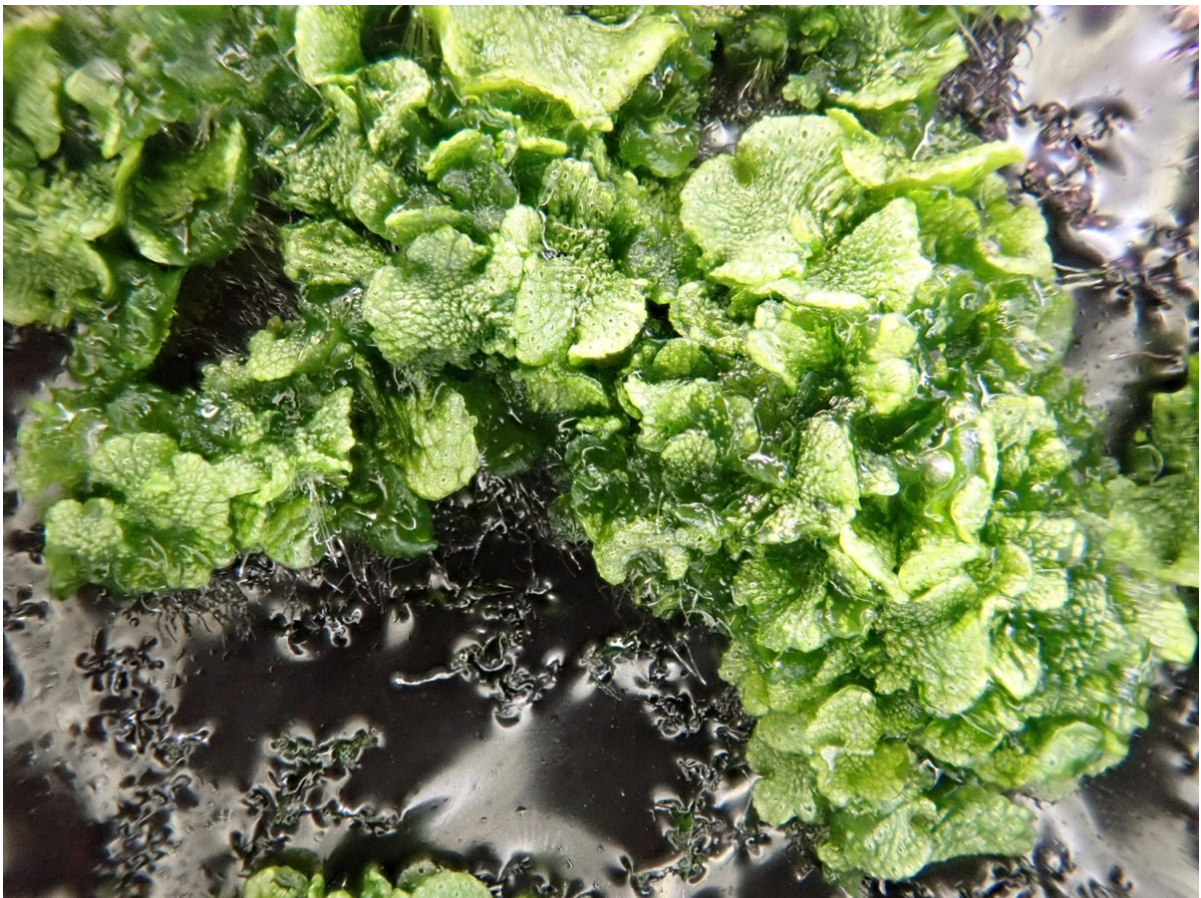
Above: BWM 300 surface after 10 days



Above BWM 300BF surface after 10 days



Above: Klavermat 300 surface after 10 days



Above: Klavermat 300BF surface after 10 days



Above: 15 days after planting best-performing Henofa hydroponics vessels. Left: BWM 300BF vs. Right: Klavermat 300BF. The BWM matting performed better, with more vigorous plant growth and faster formation of Gemmae cups. The BWM 300 material showed poorer wicking properties compared to the Klavermat 300 - could this be affecting media availability or flow? Try replacing with spreader mat.