Date:

Name:

Topic: **Micropropagation of Plants (Micropropagation of rose)**

Miniature rose cultivars display vigorous growth and development when established *in vitro*. The morfogenetic response is highly cultivar dependent.

Material: shoots of miniature rose *in vitro* culture

Medium: **RR** = M-S basal salts, B5 vitamins, 3% sucrose, 0.1 mg/l IAA, 0.5 mg/l BA, agar 8g/l, pH 5.5

Procedure:

1. Transfer culture vessels of rose shoot culture from the culture room into a laminar flow hood.
2. Prepare the vessels with fresh medium and sterile tools (forceps, scalpels).
3. Pass the opening of the vessel through flame.
4. Remove explants from culture vessels and place them to a sterile Petri dish.
5. Cut shoots into two-node explants and remove leaf blades with a scalpel leaving attached only 3mm of each petiole.
6. Trim off the base of each petiole to expose the lateral bud.
7. Partially embed the basal end of each segment vertically into the RR medium.
8. Culture under cool white light (30 $\mu mol.m^{-2}. sec^{-1}$, photoperiod 16/8 hours) at 25ºC for 4 weeks.
9. Record the number of segments within a tissue culture jars and the number of the jars.

EVALUATION

Control contamination of the explants in the following period of cultivation. The contaminated cultures should be discarded.

Record the multiplication rate (total number of shoots per one explant).