

conclusion : The core of meristem-tip culture involves removing the organized apex of the shoot from a specific donor plant for further cultivation in vitro. The explant is usually 3–4 mm to 2 cm long, and growth in vitro is controlled to only result in organized shoot outgrowth, without any unintended propagation. It includes the top portion and a few of the newest leaf buds, with no mature provascular or vascular tissues. The tiny excised meristem-tip, usually less than mm in length, is taken out through sterile dissection under the microscope. The culture conditions are controlled in a way that only permits the organized growth of the top part directly into a shoot, with no involvement of any additional organs. One benefit of using this tiny explant is the possibility of preventing harmful organisms from the donor plant in the tissue culture. Another benefit is the genetic steadiness built into the method, as it can prevent plantlet production from adventitious organs.