B-52 Seasonal variations on *in vitro* induction of axillary bud break and culture contaminants in *Bambusa vulgaris* var. *striata*

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The tissue culture technique of inducing axillary branching was carried out with the objective of developing a technique of mass producing planting stock of *Bambusa vulgaris* var. *striata*. The season in which the primary explants are collected can be crucial for the success of *in vitro* plantlet development. This investigation was undertaken to determine the seasons in which the primary explants of single node segments could be collected to initiate cultures. The explants were cultured at fortnightly intervals over a period of 2 years. A standard sterilization technique and a culture medium described previously were used. In addition, disinfectants like Dettol and hydrogen peroxide were used during surface sterilization of explants. A hot water pre-treatment of nodes at 55°C for 10 min and incorporation of antibiotics and antifungal agents in the culture medium were also done. An average of 26.4% bud break was observed over this period. Bud break showed a variation at different times. It was high during the period May to July 1994 and in late March and September 1995 when over 80% of the nodes showed bud break. At other times most of the axillary buds were dormant.

Systemic fungi and bacteria were present in the tissues which contaminated the culture.

Of the methods used to reduce culture contaminants the hot water pre-treatment at 55°C and the use of Dettol during surface sterilization significantly reduced contaminants.

Appearance of contaminants were inversely related to bud break. At periods of high bud break contaminants were low. Culture could be initiated at such times.