

Comparison of different low cost manure's in *Aponogeton crispus* culture.

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Export of wild collected *Aponogeton* species has caused a threat to its natural existence. Therefore, present regulations insist on permitting only cultured stock for the export markets. However there is a popular belief that this species can be propagated only through vegetative methods, especially by using parts of the tuber. The plants that are exported are approximately 15cm in size. Earlier tubers were exported separately. However, presently export of tubers has been prohibited.

Present study was undertaken to investigate the possibility of propagating *Aponogeton crispus* by seeds and to compare the low cost different types of manure that could be used for culture purposes. Fifteen plants were used for each plot and 3 plots were used for each treatment. The study was carried out for a period of 165 days. Manure was applied at commencement of the experiment and every 50 days thereafter. Nitrate and Phosphate levels were monitored weekly and levels were maintained for each manure throughout the experiment.

Seed germination showed a 100% success rate. And the plants took an average of 4 months to grow to the exportable size: (16.1±3.01 cm. In 126 days) The plants had developed a tuber of 0.7± 0.002cm in 165 days.

The types of manure used were cow dung, chicken manure, compost and a commercial liquid manure. The results showed no significant difference in the specific growth or final length of plants between the different treatments and the control (P<0.05) when analyzed using Analysis of Variance.

However, a significant difference was observed in survival rate of plants between the different treatments ($P > 0.05$). Plants cultured using cow dung and chicken manure showed lower survival (72% and 60% survival respectively compared to 100% survival in other treatments). The quality of plants was not acceptable for export when plants were cultured using cow dung and chicken manure.

According to this study, compost is the best low cost manure that can be recommended for *Aponogeton crispus* culture.

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