

**Micropropagation of Date Palm (*Phoenix dactylifera* L.)  
through Direct Organogenesis**



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### **Md. Mizanur Rahman**

Started his career as an Assistant Director at the Rural Development Academy, Bogura in November 2004. Since the inception of the RDA Biotechnology laboratory, he has been supervising all the activities including troubleshooting, preparation of production plan, production of plantlets through micropropagation (Potato, Gerbera, Gladiolus, Orchid, Stevia, and Strawberry), acclimatization and hardening for field adaptation of plants, cultivation in the field and marketing of laboratory products. He has expertise in producing different kinds of mushrooms and mushroom products. He has attended several training programs e.g. foundation training, ICT in rural development by CIRDAP; promotion of entrepreneurship through technology transfer by NIMSME, Hyderabad. He is a PRA (Participatory Rural Appraisal) practitioner and certified TQM (Total Quality Management) trainer.



### **Md. Asaduss Zaman**

is working as Deputy Director (Faculty Position) at Rural Development Academy, Bogura since March, 2011. He obtained his graduation in Biotechnology and Genetic Engineering Discipline from Khulna University. He reasonably developed experience of working with different donors and international organizations. Presently he is acting as the In-charge of Biotechnology Laboratory and involve in disease free quality seed production of some commercially important crops such as potato, strawberry, gerbera, banana, orchid, Arabian dates, fig, papaya etc. He is also involved in preparing development project proposal. He has substantial number of publications in different journals, reports, and monographs. His research interest is mainly focused on production of disease free quality varieties of economically important crops. Mr. Asad is actively involved in co-ordination of different training courses, workshops, seminars, conference and conducting sessions for higher officials, different public representatives and grass root level people on various issues of rural development.

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## Abstract

This research work was conducted to determine the best combinations of plant growth regulators and other conditions in order to achieve organogenesis and multiplication directly from shoot tips of date palm (*Phoenix dactylifera* L.) without callus formation so as to avoid any possibility of undesirable genetic variability. Modified MS medium supplemented with various combination of cytokinins such as Benzyl Adenine (BA), Beta naphthoxyacetic acid (NOA), 1-Naphthaleneacetic acid (NAA) used for highest germination rate, elongation of shoots and best bud formation from shoot meristem. Adventitious shoot generated from the seeds and elongated in response of modified MS media with above mentioned combinations of PGHs. In order to get multiple shoots/buds, various compositions were tried but no results observed.

**Key Words:** Tissue culture, regeneration, micropropagation, plantlet, plant growth hormones (PGHs).