

## The 2<sup>nd</sup> International Training Course on Plant Tissue Culture Applications

### May 11-17, 2014

At

**Horticulture Research Institute (HRI) and Central Laboratory of Date Palm Research and Development (CLDPRD), Agricultural Research Center (ARC), Cairo, Egypt**

Date palm (*Phoenix dactylifera* L.) is a draught and tolerant plant species bearing edible and nutritive fruit cultivated in the Middle East, North Africa, and other countries in the world. Micropropagation is the key process of date palm development. HRI in collaboration with CLDPRD is planning within this short course on tissue culture applications to emphasis on date palm commercial micropropagation.

Plant cell culture can be a potential source for production of important secondary metabolites used as pharmaceuticals and food additives. Among the advantages of this technology over conventional agricultural methods: production is independent of variation in crop quality or failure, yield of target compounds would be constant and geared to demand, and new production methods can be patented. Many approaches have been used to maximize the yield of secondary metabolites produced by cultured plant cells; choosing a plant with a high biosynthetic capacity, obtaining efficient cell line, manipulating culture conditions, elicitation, metabolic engineering, and organ culture. One of the objectives of the current course is to overview various approaches used to maximize production of important secondary metabolites in plant cell cultures.

No.	Topic	Tutor	Affiliation	No. of hours
1.	Introduction into tissue culture applications	Prof. Dr. <b>Taymour Nasr-El-Din</b>	Genetic Engineering Inst., ARC	4
	Plant transformation methods and bio-safety regulations	Prof. Dr. <b>Ibrahim Abdul Maksood</b>	Genetic Engineering and Biotech Inst., Minufiya Univ.	
2.	Yield Improvement Strategies for Production of Secondary Metabolite in Plant Cell Culture	Dr. <b>Sameh AbouZid</b>	Faculty of Pharmacy Beni-Suef Univ.	4
3.	Factors controlling production of pharmaceutical compounds using bioreactor	Dr. <b>Esam Abdul Kadir</b> Dr. <b>Shrief Saeed</b>	HRI HRI	2
4.	Commercial date palm micropropagation	Dr. <b>S. F. AlSharabasy</b> Dr. <b>Mona M. Hassan</b> Dr. <b>Rasmia Darwish</b>	CLDPRD CLDPRD CLDPRD	6
5.	Problems facing micropropagation and their control	Dr. <b>Adel A. Abul-Soad</b> Dr. <b>Mamdoh El-Shamy</b>	HRI HRI	4

The targeted groups are researchers, students and interested personnel of date palm micropropagation. The current course aims at encouraging the scientific collaboration among the tissue culture specialists in all over the world. The short course syllabus will include miscellaneous topics which will be covered by skilled scientists through mainly practical classes in a week period of time.



The chance will be given to the selective participants from outside Egypt to deliver technical lectures in the inauguration day.

**Tours:** The current course includes technical tour to the top commercial laboratories of tissue culture in Egypt. Also, an excursion to historical and sightseeing places near to HRI will be conducted by the end of the course.

**Date:** May 11 – 17, 2014

**Language:** English and/or Arabic.

**Course fees:** \$500/participant includes the refreshment and coffee breaks, and the tour. Course fees will be paid by starting the training. Egyptian participants' fees are 400 Egyptian Pounds.

The participants will have to manage their travel tickets and accommodation to attend the course at HRI headquarters beside Cairo Univ. Cairo Univ. guest house and Hor Moheb hotel Cairo are 5-10 minutes' walk from HRI and range of prices 10-30 USD per night, and many others are available. Our assistance in this regard will be available.

**Contact:** To participate in the training course, you would send us by e-mail and fax or surface mail a copy of your passport and a letter for participation to the following contact:

**Dr. Adel A. Abul-Soad**

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