

## Date Palm Regeneration Medium w/ 2iP, Activated charcoal, Sucrose & Agar

PT146

### Directions :

Suspend 44.42 grams of dehydrated medium<sup>#</sup> in 600ml of distilled water and rinse media vial with small quantity of distilled water to remove traces of powder. Adjust the medium to the desired pH using 1N HCl/NaOH. Make up the final volume to 1000ml with distilled water. Boil the medium to dissolve agar completely. Sterilize the medium by autoclaving at 15 lbs or 121°C for 15 minutes. Dispense the desired amount of medium aseptically in sterile culture vessels.

# Weight after vacuum drying to remove all water

### Principle & Interpretation :

Date palm regeneration medium has been specially formulated for the *in vitro* regeneration of date palm species. It contains macronutrient, micronutrients, iron, vitamins, plant growth hormones and carbohydrate. Activated charcoal serves as an adsorbing agent. Agar provides a firm support for inoculating explants and cultured tissues.

### Quality Control :

Appearance	: Grey to black, homogeneous, free flowing powder.
Solubility	: 44.42 gm/litre soluble after boiling in distilled water.
Colour and Clarity	: Grey to black opaque gel is formed on cooling.
pH at 25°C	: 4.4 ±0.5 of 4.442% w/v dehydrated medium.

**Cultural Response :**

Cultural condition :

- Incubation period : 5 weeks
- Relative humidity : 60%  $\pm$  2%
- Temperature : 25°C  $\pm$  2°C
- Photoperiod (D:N) in hours : 16:8

Cell Line	Type of Culture	Results
<i>Date</i> species	Callus culture	No necrotic tissues, Actively growing callus, No toxicity to callus

[The medium is prepared as per direction. The growth promoting activity of this plant tissue culture medium is evaluated using plant species viz. *Date* species through three passages.]

**Storage & Shelf life :**

Dehydrated plant tissue culture media powder is extremely hygroscopic and should be protected from atmospheric moisture. If possible, the entire content of each bottle should be used immediately after opening or else the unused portion should be stored in a desiccator and refrigerated at 2-8°C. Use before the expiry date.

**Disclaimer :**

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