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## Induction of coloured callus from *Lawsonia inermis* L.

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**Abstract :** Tissue culture of *Lawsonia inermis* L. was carried out to induce coloured callus on MS media supplemented with various hormones. Various explants such as Leaves, nodal portion were used. Different concentration of 2,4-D, NAA, BAP, KN were used.

**Key words:** Callus, BAP, 2,4-D, NAA, KN.

### INTRODUCTION

*Lawsonia inermis* L. (Lythraceae) is a very useful medicinal plant in all parts of world. It is much branched glabrous shrub. It is used by individuals as 'blood tonic', thus implying its multifaceted use<sup>1</sup>.

### CULTURE MEDIA :

MS medium with varying concentration of phytohormones were employed for callus initiation.

### CULTURE CONDITION :

The culture were maintained under controlled environment at  $25 \pm 2^{\circ}\text{C}$  with 16 hours photoperiod and 8 hours dark. All experiments were conducted under sterile conditions.

### MATERIAL & METHODS :

In the present analysis nodal portions were used for experiments. The segments of leaves were inoculated on

MS medium supplemented with different phytohormones and combinations.

The combination and concentrations of hormones were used. Table I.

### OBSERVATION :

Callus initiation of *Lawsonia inermis* L. in various combination of auxin and cytokinins incorporated in MS medium on the different explant.

### RESULT AND DISCUSSION :

In this work explants cultured on MS medium with all different combinations and concentration of hormones also could form coloured callus. Coloured callus (brown) was obtained after 45 days. Other coloured callus were also obtained in this experiments. Coloured callus was formed in *Plantago asiatica* L. in the presence of BAP & IAA<sup>2</sup>. This is similar with Llahi et. al<sup>3</sup>.

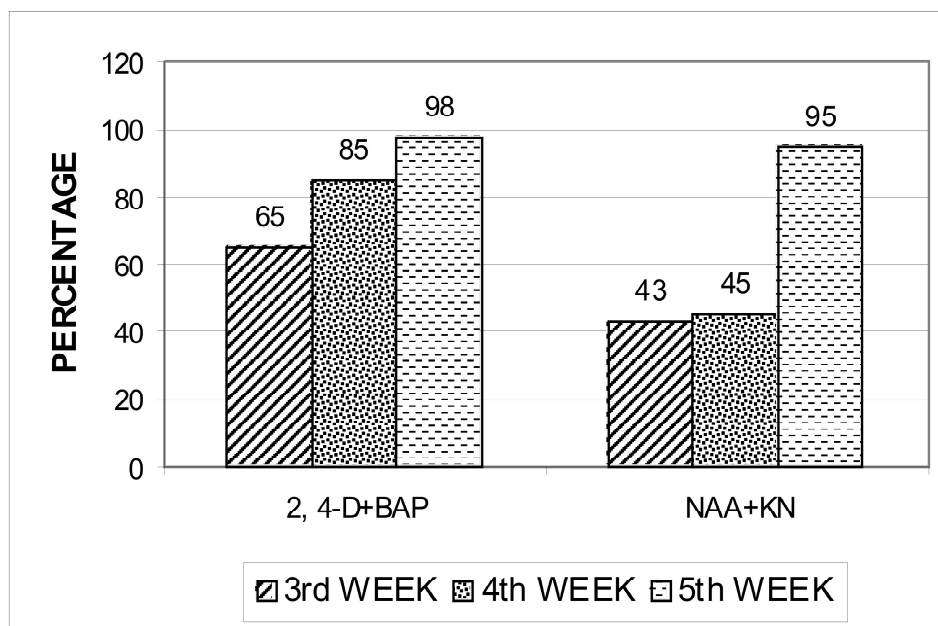
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Table 1: Callus initiation (*L. inermis* L.) in different phytohormones (Auxins + Cytokinins) incorporated in MS

Phytohormones concentrations (in ppm)	Name of the explant	% initiations of callus		
		3 <sup>rd</sup> Week	4 <sup>th</sup> Week	5 <sup>th</sup> Week
2,4-D (2 ppm) + BAP (2.5 ppm)	Nodal Portion	65%	85%	98%
NAA (2.5 ppm) + KN (1.5 ppm)		43%	45%	95%



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