

ABSTRACT

Practicums or experiments are very often carried out in tissue culture learning, but in their implementation there are methods that are difficult for students to explain and understand. Apart from that, there is no media and teaching materials such as practical guide books that contain all the steps in plant tissue culture from preparation to maintenance. This research aims to determine the level of validity of the practical manual for callus induction tissue culture on caraway leaf plants (*Coleus amboinicus* Lour.) and to determine the effect, optimum concentration and morphology of callus formed by administering 2,4-D and kinetin on caraway leaf explants (*Coleus amboinicus* Lour). The type of research used was *Research & Development* (R&D), for experimental research using a Completely Randomized Design (CRD) with five treatments, namely 0,0 ppm 2,4-D + 0,0 ppm Kinetin; 2,0 ppm 2,4-D + 2,0 ppm Kinetin; 2,0 ppm 2,4-D + 2,5 Kinetin; 2,0 ppm 2,4-D + 3,0 ppm kinetin and 2,0 ppm 2,4-D + 3.5 ppm Kinetin with six repetitions. The results showed that there was no effect on the administration of 2,4-D and kinetin in inducing callus from caraway leaf explants (*Coleus amboinicus* Lour) based on the Asymp hypthesis test value. Sig. 0.108 > 0.05. Treatment of 2 ppm 2,4-D + 2 ppm kinetin and treatment 2,0 ppm 2,4-D + 2.5 ppm kinetin are optimal concentrations in inducing callus. The callus formed has different colors, namely white, yellowish white, greenish white and brownish as well as a compact and crumbly texture and the practical guide book which has been validated by material experts, media experts and linguists obtained an overall average score of 88.1% is included in the Very Valid category. So this practical guide book is suitable for use as a learning medium in schools.

Keywords: Cumin Leaves (*Coleus amboinicus* Lour), Influence, Practical guide book, Validation.