## ABSTRACT

The use of technology in the world of education is very necessary to improve quality, productivity and increase the quality and efficiency of education costs. One form of using technology in education is electronic books. To avoid misconceptions about the steps in tissue culture material, media is needed that can be understood, accessed and used easily by students. This study aims to determine the effect of administering the growth regulators 2,4-D and kinetin on the growth of black cumin plant explants (Nigella sativa L.) and to determine the level of validity of the callus induction practicum guide for callus plants (Nigella sativa L.) as a learning material. biological technology innovation in phase E. The type of research used was research and development (R&D) and for experimental research used a completely randomized design (RAL) with five repetitions 0 ppm, 2.0 ppm 2,4-D + 2,0 ppm kinetin, 2.0 ppm 2,4-D + 2.5 ppm kinetin, 2,4-D + 3 ppm kinetin, 2.0 ppm 2,4-D + 3.5 ppm kinetin. The results showed that the effect of 2,4-D and kinetin on callus induction of black cumin seeds (Nigella sativa L.) had a significant effect based on the Asymp hypothesis test value. Sig. 0.00 < 0.05. The network culture e-book media was validated by material experts, media experts and language experts. This e-book media was validated based on the experts above so that an overall average score of 86% was obtained, which is included in the very valid category. So the network culture e-book media is suitable for use as a practical learning medium in schools.



**Keywords**: E-book, Black Cumin (Nigella sativa L.), Kinetin, Validity, 2,4-D,