

Research Title The Early Development of Gametophyte Generation
 of Asplenium nidus cv. Crispafolium

Name Ms. Suchada Kanchanapa

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ABSTRACT

Physical factors affecting the germination of spores of Asplenium nidus cv. Crispafolium were investigated. It was found that spores of this fern could germinate in Knop's solution modified by adding Fe EDTA. The suitable pH for the germination of spores and development of gametophytes fell in the range between 5.0-6.0. The optimum concentration of modified Knop's solution was about 0.5-1.5 times the normal strength. The continuous dark period was unnecessary for the spore germination and among 5 levels of tested light intensities, 4,200 lux gave the best result on spore germination and gametophytic growth. The germinating spores would develop into mature gametophytes within 6-12 months. The development of both gametophytes and sporophytes was very slow and needed a consistent humid environment. Lack of enough humidity for about 3 days the fern would be desiccated and died.

