

生物技术·遗传育种

沉香虎头兰、大雪兰正反交及种子无菌萌发研究

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摘要 以沉香虎头兰 (*Cymbidium tracyanum*) (黄色素花) 与大雪兰 (*C. mastersii*) 为父、母本进行正反交, 用杂交种子进行无菌萌发研究和种胚发育观察。结果表明: 这两种杂交兰花的结实率为60~100%; 大雪兰和沉香虎头兰(黄素) 杂交种子在1/2MS+6-BA 1.0~3.0 mg/L+NAA 0.5~2.0 mg/L无菌条件下的萌发率约为70%; 正反交对种子的萌发率没有明显影响; 在沉香虎头兰×大雪兰、大雪兰×沉香虎头兰的种子萌发过程中, 种胚的发育有两种方式: 一是在胚还未转绿时就突破种皮, 另一种是胚转绿后再突破种皮, 形成原球茎。

关键词 [兰花](#); [杂交种子](#); [无菌萌发](#); [种胚发育](#)

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Studies on Cross Breeding Between *Cymbidium tracyanum* and *C. mastersii* and Aseptic Germination of Their Seeds

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Abstract

Cymbidium tracyanum and *C. mastersii* were employed as parents. The hybrid seeds were obtained using direct crossing and reciprocal crossing, then germinated in axenic culture. During the process of germination, the embryo growth was observed. The results showed that the ratio of fruit-setting varied between 60% and 100%. When the hybrid seeds were germinated on the 1/2MS medium with 2.5 mg/L 6-BA and 0.5 mg/L NAA, the ratio of seed germination was about 70%. There was no significant difference in the ratio of seed germination between direct crossing and reciprocal crossing. During the process of seed germination, two kinds of seed embryo growth were discovered. For a certain part of hybrid seeds, the embryo became green until breaking through the seed coat, while the embryo turned green before breaking through the seed coat and formed protocorm-like-body for the others.

Key words [Orchids](#); [hybrid seed](#); [aseptic germination](#); [seed embryo growth](#)

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