

园艺—研究报告

伏毛铁棒锤种子休眠与破除休眠方法研究

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摘要:

为探讨伏毛铁棒锤种子休眠原因及破除种子休眠的方法, 利用TTC法测定伏毛铁棒锤种子活性; 流水冲洗种子、不同层积方式处理、赤霉素浸种处理, 测定其对种子萌发的影响; 测定伏毛铁棒锤种子提取物对白菜、伏毛铁棒锤种子的抑制活性。结果表明, 伏毛铁棒锤种子生活力可达到90%, 14 h种子吸水达到饱和, 种皮透水性较好, 种仁粗提物浓度为0.8 g/mL时, 白菜种子发芽率仅为38.3%, 说明种子含有内源性抑制物质。流水冲洗种子可以部分地去除抑制物, 提高萌发率; 低温层积和变温层积可以有效地打破休眠, 尤其低温层积, 发芽率达到79.67%; 200 µg/mL赤霉素处理24 h对种子萌发效果最好, 发芽率高达82%。

关键词: 内源抑制物

Studies on Methods for Breaking Dormancy and Dormancy Feature of Aconitum flavum Seed

Abstract:

To investigate the reason of seed dormancy and the methods of relieving the seed dormancy in Aconitum flavum, Using the TTC method to determinate the seed activity of Aconitum flavum, while using the running water washing the seed, the different stratification treatment, and the GA soaking the seed to determine them the influence on seed germination, in addition detecting the inhibitory activity of extract of the seed in Aconitum flavum on the seed in cabbage and Aconitum flavum. The seed viability of Aconitum flavum up to 90%, Seed bibulous reach saturated with 14 h, and seed coat permeability was good. When the extracts concentration of seed kernel was 0.8 g/mL, the seed germination rate in cabbage was only 38.3%. It was indicating that the seed contains the endogenous inhibitor. The method of running water washing can be partially to remove the inhibitors and improve the germination rate. The low temperature and poikilothermic stratification treatment can effectively break the dormancy of seed, especially in low temperature stratification, the germination rate of seed up to 79.67%. 200µg/mL GA3 with 24 h treatment on seed was best for germination, and the germination rate can be to 82%.

Keywords: endogenous inhibitor

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