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林学—研究报告

沙冬青种子萌发及育苗试验

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摘要:

通过沙冬青种子萌发及育苗试验，解决沙冬青人工育苗技术，为其人工繁育提供技术措施。在试验室与花盆内对沙冬青种子进行发芽和育苗试验，测定其含水率和吸胀速率，研究不同温度、不同浓度盐溶液、不同覆土厚度下种子萌发情况。结果表明：（1）沙冬青种子在15~35℃内能够达到较高的发芽率。60、70、80℃水短暂的处理可有效促进种子吸胀，提高发芽率，发芽率可达80%以上；（2）种子耐盐性较差，当NaCl溶液浓度高于0.8%时，会显著降低种子发芽率；（3）沙冬青种子在常温条件下吸胀速率缓慢，在吸胀初期，吸水量急剧增加，但随着时间延长，绝对吸水量逐渐减少；（4）种子育苗适宜的覆沙厚度为1~2 cm；（5）适宜的播种土壤类型为沙壤土，保苗率较高，苗木生长量及生物量大。沙冬青种子在适宜的温度范围内能够正常萌发，短暂的高水温处理可以显著提高吸胀速率，降低种子硬实率，促进种子萌发。在沙壤土中种植沙冬青，覆沙厚度在1~2 cm可使其育苗获得成功。

关键词: 沙冬青；温度；盐分；育苗；发芽

Seed Germination and Seedling Culture of Ammopiptanthus mongolicus

Abstract:

The technique of artificial cultivating was resolved through seed germination and seedling culture of Ammopiptanthus mongolicu. It is provided that the technical measure for its artificial breeding. The effects of salt solution, covering sand thickness, treating methods and temperature on seed germination of Ammopiptanthus mongolicus were studied under laboratory and flowerpot. The results indicated that: (1)The optimal temperature for the seeds to germinate was 15~35℃, transient water temperature of 60、70、80℃ disposal may urge the seed to attract effectively, raises the germination percentage, the germination percentage reached above 80%; (2)Salt tolerance of seed was lower when the NaCl solution density exceeded 0.8%, and germination rate would decreased rapidly; (3)The percentage of remaining hard-coated seeds of Ammopiptanthus mongolicus was higher, and the seed was not easy socking in normal temperature condition. At the start of absorption, water content of seed increased fast, and relative amount decreased gradually with the time; (4)The optimal seed-covered sand thickness was 1~2 cm; (5)The optimized breeding soil was small sandy loam soil, seedlings growth and biomass displayed the quick growth, and sandy loam was the ideal soil of breeding. The seed of Ammopiptanthus mongolicus can sprout normally in the suitable temperature range. Temporary high temperature water could increase velocity of socking and promote seed germination. Seed of Ammopiptanthus mongolicus was sowed in the sandy soil, soil covering depth was 1~2 cm, and raising seedlings can obtain success.

Keywords: Ammopiptanthus mongolicu s temperature salt breeding germination

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