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## 植物生产层

### 北京地区新收获柳枝稷种子的萌发和出苗特性

范希峰, 侯新村, 武菊英, 左海涛, 朱毅

#### 摘要:

为探明能源型植物柳枝稷 (*Panicum virgatum*) 新收获种子的萌发和出苗对环境条件的要求, 研究了温度、光照和播种深度对柳枝稷种子萌发和出苗的影响。结果表明, 柳枝稷种子萌发的适宜温度为30~35 ℃, 此时发芽率、发芽势和发芽指数均明显高于其他温度处理; 其发芽率不受光照影响, 但光暗交替条件下的发芽速率、发芽势和发芽指数较黑暗条件下显著提高; 其适宜的播种深度为2~16 mm, 不覆土或播种过深均不利于出苗。

关键词: 柳枝稷 种子萌发 温度 光照 播种深度

### Germination characteristics of newly harvested seeds of switchgrass in Beijing, China

FAN Xi feng, HOU Xin cun, WU Ju ying, ZUO Hai tao, ZHU Yi

#### Abstract:

The objective of this study was to determine the effects of temperature, light and sowing depth on newly seed germination of switchgrass (*Panicum virgatum* cv. Alamo) planting in the Beijing for 3 years, which was introduced from the United States in 2005. The resulted of this study showed that the temperatures from 30 ℃ to 35 ℃ encouraged the seeds to germinate faster, and increased the maximum germination percentage, germination vigor, germination index when compared to the low temperature from 20 ℃ to 25 ℃ and the high temperature with 40 ℃. The light and darkness treatments did not affect the germination percentage of Alamo seeds, but encouraged the seeds to germinate faster and increased the germination vigor and germination index. The treatments of differently sowing depths, from 2 mm to 16 mm, were very uniform and efficient since they not only encouraged the seeds to emerge but also increased the emergence percentage and emergence index of switchgrass seeds in comparison with 0 and 32 mm sowing depths.

Keywords: *Panicum virgatum* cv. Alamo seed germination temperature light sowing depth

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