

园艺—研究报告

不同种植年限菜场叶菜田恶性杂草马齿苋土壤种子库的研究

杨红梅¹,冯莉²,田兴山³,杨彩宏¹,岳茂峰¹

- 1. 广东省农业科学院植物保护研究所
- 2. 广东省农科院植物保护研究所
- 3. 广东省农业科学院植物保护研究所杂草研究室

摘要:

采用恒温保湿培养法分别对种植1年、6年、8年和10年的菜场叶菜田马齿苋土壤种子库进行了研究。结果表明:随着菜场种植年限的增加,马齿苋土壤种子库种子密度不断升高,与不同年限菜场田间马齿苋种群发生量的调查结果一致。对马齿苋土壤种子库0~20 cm土层的垂直分布进行研究,结果显示,马齿苋土壤种子库的种子密度随着土壤垂直深度的增加呈现逐渐减少的趋势,其中马齿苋种子在0~15 cm范围分布最多,种子密度占整个分布层的90.8%以上;15~20 cm土层的马齿苋种子数量较少,低于9.2%。对上述不同种植年限菜场叶菜田马齿苋土壤种子库的年动态变化研究结果表明,3月和12月马齿苋土壤种子库种子密度较高,6月和9月相对较低,与马齿苋田间发生量的年动态变化相反。

关键词: 土壤种子库

Studies on the Soil Seed-bank of *Portulaca oleracea*, a Vicious Weed Species in Leafy Vegetable Field of the Vegetable Farms with Different Cropping Duration

Abstract:

The objective of the study was to investigate the soil seed-bank of *Portulaca oleracea* in 0~20 cm soil layer, which collected from leafy vegetable fields in those farms with different cropping duration. The results showed that the *Portulaca oleracea* seed density of soil seed-bank enhanced with increased cropping duration. These results obtained from the laboratory were agreed with the real fact in the field. The *Portulaca oleracea* seed density of seed-bank gradually reduced along with the soil vertical depth increase, which was distributed mainly in the 0~15 cm soil layer, accounted for 98.5% of the whole seed-bank, and the seed density that in the 15~20 cm soil layer was especially lower. In addition, we investigated the dynamics of *Portulaca oleracea* seed density of soil seed-bank, and the results demonstrated that the highest seed density of soil seed-bank was occurred in the March and December quarters, respectively, while the seed density of soil seed-bank was relatively lower in the June and September quarters. The results of the happening in field had the contrary trend.

Keywords: soil seed-bank

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通讯作者: 杨红梅

作者简介:

作者Email: yhm.xy@163.com

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