

前植物生产层

退化草地改建对土壤种子库及其与植被关系的影响

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摘要:

研究分析了“黑土滩”退化草地及改建后的单播和混播栽培草地土壤种子库特征及其与地上植被的关系。结果表明: 在栽培草地及对照处理中土壤种子库共由22种植物组成, 单播、混播和“黑土滩”退化草地分别由13、12和21种植物组成, 其中多年生杂草类占种数的比例分别为61.5%、50%和61.9%; 各处理种子库组成较小, 单播、混播和“黑土滩”退化草地种子库大小分别为(4 142.8±1 547.6)、(5 057.8±943.3)和(1 591.5±876.9)粒/m<sup>2</sup>。“黑土滩”退化草地植被及土壤种子库表现为较高的相似性, 各处理土壤种子库与地上植物物种相似性较低, 各处理间土壤种子库物种组成相似性较高。

关键词: 黄河源区 “黑土滩” 栽培草地 土壤种子库 生态恢复

Effects of rehabilitation of “black soil type” degraded grassland into sowing grasslands on soil seed bank and its relationship with vegetation in the source area of Yellow River

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Abstract:

Soil seed bank and its relationship with aboveground vegetation of “black soil type” degraded grassland and two sowing grasslands, single seed and mixed seeds treatments were studied. The result showed that the soil seed bank is composed by 22 species in sowing grasslands and CK. Single seed grassland, mixed seeds grassland and “black soil type” degraded grassland are composed by 13, 12 and 21 species respectively. Perennial weeds proportion of total number of species was 61.5%, 50% and 61.9%. The size of soil seed bank of each experiment treatment is small. The seeds number of single seed grassland, mixed seeds grassland and “black soil type” degraded grassland is (4 142.8±1 547.6)、(5 057.8±943.3) and (1 591.5±876.9) seeds/m<sup>2</sup> respectively. The similarity of species between soil seed bank and aboveground vegetation of “black soil type” degraded grassland is high. But it is low of each treatment. And the similarity is high between two treatments.

Keywords: the Source Region of Yellow River; Black Soil Beach; Sowing grassland; Soil seed bank Ecological rehabilitation

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