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摘要： 为利用轮作换茬措施缓解连作大豆的危害和产量损失，研究了苜蓿、玉米和大豆3种作物茬口对连作大豆产量和农艺性状的影响。结果表明：苜蓿茬3年连作大豆比玉米茬3年连作大豆增产10.4%，比4年连作大豆极显著增产26.7%；玉米茬3年连作大豆比4年连作大豆显著增产14.7%。与4年连作大豆相比，苜蓿茬和玉米茬连作3年大豆的株高分别增加16.6 cm和14.7 cm、单株粒重分别增加7.0 g和3.7 g，差异均达极显著；苜蓿茬和玉米茬处理间的株高、单株粒重差异不显著。4年连作大豆的病粒率分别比苜蓿茬和玉米茬3年连作大豆的病粒率高4.54%和6.74%，差异达显著和极显著；苜蓿茬、玉米茬处理间的病粒率差异不显著。三个茬口处理之间大豆虫食粒率差异不显著。可见，对于连作大豆，苜蓿茬口优于玉米茬口和大豆茬口。

Abstract: In recent years, large area of continuous cropping soybean has caused great yield loss in Heilongjiang Province, and measures were put forward to alleviate its damages on soybean production. The writer found in 2004 there were significant variances among yield and the agronomic characters of alternate cropping soybean in different crop stubbles. On the basis of that, the effects of alfalfa, maize, and soybean stubble on seed yield and agronomic characters of continuous cropping soybean were studied further in the Longzhen Farm in 2005. The experiment was carried out in completely random design with 3 replications. Three treatment of soybean continuous cropping for three years in alfalfa(SCCA), in maize(SCCM) and in soybean stubble (SCCS) were adopted, and each treatment consisted of 5 rows with 10 m length and 0.65 m width. Seed yield of SCCA(2535.0 kgha^{-1}) increased 14.7% than that of SCCM(2296.0 kgha^{-1}), and significantly increased 26.7% than that of SCCS(2001.0 kgha^{-1}). Plant height of SCCA was 16.6 cm higher than that of SCCS, and 2.0 cm higher than that of SCCM. Seed weight per plant of SCCA increased 3.7 and 7.0 g compared with SCCM and SCCS. The infected seed rate of SCCS increased 9.37% and 4.54% compared with SCCA and SCCM. For rates of seeds bitten by insects, no significant difference was found among three treatments. Results suggested that alfalfa and maize stubble were suitable for soybean continuous cropping.

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