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摘要: 为了筛选与土著根瘤菌、丛枝菌根真菌(AMF)高效双共生的大豆品种,在盆栽条件下,研究了不同类型的7个大豆品种在苗期与土著根瘤菌、AMF形成双共生体系及大豆生物量的状况。结果表明:7个大豆品种的根系AMF侵染率、根际土壤AMF孢子数、根瘤数量有显著(P<0.05)或极显著(P<0.01)差异;垦鉴豆43在V2和V4期与土著根瘤菌和AMF能较好地形成双共生体,根段AMF侵染率和单株根瘤数均较高,根瘤与丛枝菌根(AM)形成相互制约较小,而黑农35的AM对根瘤形成有较大的制约作用,根段AMF侵染率较高,单株根瘤数最低;AM和根瘤的形成对大豆生物量积累的反应或影响在7个品种中表现不一致,垦鉴豆43和抗线2号的AMF侵染率、根瘤数量和生物量积累相对较高。

Abstract: In order to screen soybean varieties possessed of efficient dual symbiosis system formed by indigenous rhizobia, indigenous arbuscular mycorrhizal fungi (AMF) for soybean production, the dual symbiotic systems of seven soybean varieties with both indigenous rhizobia and arbuscular AM fungi and status of soybean biomass at the seedling stage were studied under potting conditions in the paper. The results were that there were significant differences (P<0.05 or P<0.01) in mycorrhizal infection rate, spore number and root nodule number per plant of seven soybean varieties in the seedling. In V2 and V4 period, Kenjiandou 43 could form a better dual symbiosis with indigenous rhizobia and arbuscular mycorrhizal fungi, and had a little restraining effect between nodule and AM formation. But AM of Heinnong 35 had a greater inhibition on root nodules formation. The reaction or impact of starting up of mycorrhizal colonization and root nodule on the biomass of seven soybean varieties were inconsistent. Kenjiandou 43 and Kangxian 2 had more mycorrhizal infection rate of soybean roots, spore number and root nodule number per plant.

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