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接种根瘤菌对夏大豆籽粒灌浆特性及品质的影响

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摘要: 以鲁黄1号大豆为供试品种, 在黄淮海平原地区研究了接种根瘤菌对夏大豆籽粒灌浆特性及品质的影响。结果表明: 接种根瘤菌各处理的大豆产量以M5处理最高, M6处理次之, 未接种根瘤菌的M1处理产量最低, 三者之间达到了显著或极显著差异; 蛋白质和油分的含量均以M5处理最高; 籽粒终极生长量和累积籽粒重均以M5处理最大, M6处理次之, M1处理最小, 且各部分间表现为中部>下部>分枝>上部。相关分析表明: 大豆的单株有效荚数和粒数的增加均与大豆生长期呈显著或极显著相关; 大豆单株产量与不同灌浆时期, 累积籽粒重与不同生长期均达到显著或极显著相关。

Abstract: Soybean cultivar Lu Huang 1 was inoculated with rhizobia to study the grain filling characteristics and quality in the plain of Huang-huai-hai area. The results showed that among the different treatments, the M5 treatment had the highest yield, followed by M6 treatment, while the uninoculated treatment M1 had the lowest yield. The variances among these three treatments reached to significant or extremely significant level. Seeds protein and oil content of treatment M5 were the highest. The final weight and accumulated weight of one hundred seeds presented the same trend, treatment M5 was the highest, followed by treatment M6, treatment 1 was the lowest, moreover, they both highest in the middle of the stem, followed by the parts in basal, branch and apical. Relative results also showed that the increase of the number of effective pods and seeds per plant had significant or extremely significant correlation with growth period. In addition, the yield per plant and accumulated weight of seeds per plant had significant or extremely significant positive correlation with the different filling stages and growth phases, respectively.

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