

不同栽培密度对棉花植株养分特征及产量的影响

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Effects of planting density on nutrition characteristics and yield of cotton

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摘要

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摘要 田间小区试验研究了不同栽培密度对棉花植株养分特征及产量的影响。结果表明: 密度为 18.0×10^4 株/hm² (A3处理) 皮棉产量最高, 为3247.4 kg/hm²; 吐絮期中氮、磷、钾含量以 18.0×10^4 株/hm² (A3)、 22.5×10^4 株/hm² (A4) 处理积累量较高, 与产量一致; 不同密度处理单株氮、磷、钾含量随密度的增大而减小; 群体变化趋势则不同, 虽然最高值仍都出现在8月15日, 但在盛铃~吐絮期却以A3处理各元素的含量最高。说明后期养分积累对产量的形成具有重要的作用, 尤其是植株群体和生殖器官的养分积累量。

关键词: 密度 植株养分 产量 氮素

Abstract: In order to study the effects of different planting densities on nutrition characteristics and yield of cotton, a field experiment was conducted by using five planting densities from 9.0 to 27×10^4 plant/ha. The result shows that the highest yield is 3247.4 kg/ha under the 18.0×10^4 plant/ha. The N, P and K accumulation amounts at the period of boll opening and cotton yields are higher in 18×10^4 and 22.5×10^4 plant/ha. The dynamic changes of N, P and K contents of plant of cotton are decreased with the increase of density. However, the group changes are different, the N, P, K contents of group of cotton are the highest during the initial flowering and boll opening stage since the maximizing came from 15th of August, so nutrition accumulation of the latter stage was very important with the yield, especially nutrition accumulation of group and reproductive organ.

Keywords: density plant nutrition yield nitrogen

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