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## 棉花“双重子房”棉铃形态学与形成因素的研究

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### Research on the Morphology and Forming Factors of Double Ovary Boll in Cotton

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摘要

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**摘要** 以陆地棉中棉所16为研究材料, 采用植物形态学、解剖学方法及栽培技术对海南冬季棉花多年出现的“双重子房”棉铃进行初步研究。结果表明: 双重子房棉铃花蕾的形态由共同的苞叶、花萼、花冠、雄蕊、柱头、花柱及生长在大子房中的小子房所组成; 小子房早在棉花开花前已经形成, 并与大子房争夺营养物质, 导致落铃、烂铃; “双重子房”棉铃的生长发育分为开花前期、体积增大期、体型充实期、膨胀迫裂期、脱水成熟(开裂吐絮)期5个时期; 低温是双重子房棉铃形成的主导因素, 而棉种是内在因素; 气候因素对双重子房棉铃形成的影响大于遗传因素。

**关键词:** 双重子房 棉铃 形态 结构 形成因素

**Abstract:** Using the techniques of plant morphology and plant anatomy, we analyzed morphological and anatomical characters about the double ovary bolls of the cotton variety CCRI 16, which happened in Hainan province during the winter for many years. The result indicated that the double ovary bud share same subtending leaf, calyx, corolla, stamens, stigma and style. Moreover, the big ovary contained the small one which usually resulted in the double ovary boll of the cotton at the begin of cotton flowering. Because of competing with each other for nutrient substance, the cotton double ovary bolls fell off earlier than the normal ones. The forming of double ovary bolls can be divided into five stages including the early phase of flowering, increasing in boll size, filling somatotype, opening the boll and drying maturation. The trend of the double ovary boll appeared "hillside" in Hainan province during the winter. The low temperature was the dominating factor, the species of cotton was the intrinsic factor. The forming of double ovary bolls is related more to climate factors than genetic factors.

**Keywords:** doubles ovary cotton boll morphology configuration formative factor

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