Studies on Effects of Cultural Factors on Main Agronomic and Economic Characters of Different Fruiting Position in Cotton

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Abstract: By using non-Linear regression orthogonal combination design (the optimum mix design), the effects of cultural factors on main agronomic and economic characters of different fruiting nodes were analyzed. The result showed the contribution rate of four different fruiting positions and three distinct places reached the significance levels through LDS. The contribution of bolls on 2nd fruiting position to the fiber quality and yield is the biggest, the contribution rate reached to 30.13% and 31.74%; and the contribution of middle branches to the fiber quality and yield is the biggest, the contribution rate reached to 36.30% and 37.74%. The regression model between cultivation factors was established with fiber quality and yield under the condition of special ecosystem and cultivation, in Hunan, the model that the highest fiber quality can be obtained is sowing at April 23th, 24000 plants · hm^{-2}, dressing N 330 kg · hm^{-2}, the model that the highest yield can be obtained is sowing at April 17-18th, 24000 plants · hm^{-2}, dressing N 260 kg · hm^{-2}.

Key words: sowing time; density; N; yield; fiber quality; cotton