

研究报告

# 大田期烟草根系构型参数的动态变化

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## 摘要

采用“根箱”法研究了大田期烟草根系构型参数在时间、空间上的动态变化. 结果表明, 烟草2级侧根总长度的增加明显大于1级侧根, 根快速增长期分别出现在移栽后26~40和56~70 d. 栽后57 d(打顶)前, 烟草根系的分枝密度表现为10~20>0~10>20~30>30~40 cm, 此后随土层的加深呈递减趋势. 在主根上, 以7~21 cm范围内的分枝密度最大. 打顶前, 比根长随着入土深度的加深而递增; 栽后90 d, 比根长随土层的加深而递减. 1级侧根根长密度在0~10 cm土层内的变化呈“S”型曲线, 10~20、20~30和30~40 cm内表现为双峰曲线; 2级侧根根长密度随生育期的进程而增加, 其中0~10 cm根长密度的变化为“S”曲线, 其它层次为单峰曲线.

关键词 [烟草根系](#) [根构型](#) [分枝密度](#) [比根长](#) [根长密度](#)

分类号

## Dynamic changes of morphological parameters of tobacco root in field

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### Abstract

The study with rhizotron showed that the total length of tobacco's second order lateral root had a much more increase than that of first order one, and the root length developed rapidly during 26~40 d and 56~70 d after transplanting for the second and first order lateral root, respectively. Before tip pruning, the branch root density of tobacco was decreased in order of 10~20>0~10>20~30>30~40 cm soil layer. The branch density of main root was the highest in 7~21 cm soil layer. The deeper the soil layer, the bigger the ratio of dry weight and root length, but the distribution was reverse at 90 d after transplanting. The first order lateral root length density distributed in "S" curve in 0~10 cm soil layer and in double climax curve in 10~20, 20~30 and 30~40 cm soil layers, while the second order lateral root length density became bigger with the course of growth period, which was in "S" curve in 0~10 cm soil layer and in single climax curve in other soil layers.

### Key words

[Tobacco root](#) [Root morphology](#) [Branch root density](#) [Ratio of root length and dry weight](#) [Root length density](#)

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