

植物遗传学

## 烤烟主要农艺性状对产量的遗传贡献率分析

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**摘要** 为了研究烤烟主要农艺性状对产量的贡献, 以14个品种(系)及其配制的41个杂交组合为材料, 利用估算条件方差分量和预测条件遗传效应值的统计方法对多点实验数据进行了分析。结果表明, 株高对产量的加性遗传方差贡献率最高, 腰叶长对产量的显性遗传方差贡献率最高, 各农艺性状对产量的加性×环境互作遗传方差、显性×环境互作遗传方差的贡献率均较小。对产量加性效应贡献最大的农艺性状因不同亲本而异, 表明各亲本具有其独特的遗传和发育特性。多数杂交组合产量的显性效应主要受腰叶长影响, 因此腰叶长可作为间接选择组合产量显性效应的指标。

**关键词** [烤烟](#); [农艺性状](#); [加性-显性模型](#); [多元条件分析](#)

分类号

## Genetic Contribution of Agronomic Traits to Yield in Flue-cured Tobacco (*Nicotiana tabacum* L.)

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### Abstract

In order to understand the genetic contribution of six agronomic traits to yield, 14 flue-cured tobacco varieties (or breeding lines) and their 41 F1 crosses were used for multivariable conditional analysis. The contribution of additive variance of plant height on yield was larger than other agronomic traits. The larger contribution of dominant variance on yield was due to length of middle leaves. All agronomic traits investigated had small contribution on yield due to additive × environment interaction effects and dominant × environment interaction effects. For different parents, there was not the same trait which had the most contribution to additive effect of yield. This could result from the fact that the parent had its own genetic and developmental characterization. The dominant effects of yield were mainly influenced by length of middle leaves for many crosses. Length of middle leaves could serve as measurement to select indirectly the crosses having high dominant effect of yield.

**Key words** [Flue-cured tobacco](#) [agronomic trait](#) [additive-dominance genetic model](#) [multivariable conditional analysis](#)

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