

**GENETIC PROGRESS FOR THE UPLAND RICE
BREEDING PROGRAM IN MINAS GERAIS USING MIXED
MODELS METHODOLOGY**

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- **ABSTRACT:** *The objective of this study was to quantify the genetic progress obtained by the genetic improvement of upland rice from period 1997/98 to 2007/08, using mixed model. We used the results of grain yield obtained from the tests of value for cultivation and use made by the UFLA, EPAMIG, UFV and Embrapa Arroz e Feijão. Date of grain yield were from 11 sites in 11 years. The experiments were installed in a randomized complete block design, with three replications. 107 genotypes planted in the period from 1997/98 to 2007/08. The Genetic progress was estimated using the genotypic values average sites, capitalized on the average effect of the interaction.. We used the software Selegen REML/BLUP, adopting the model 114-Stability, adaptability and yield with locations and years: blocks, genotypes, several plants per plot, multiple locations. Observed that the annual genetic gain was positive in only four years. The total accumulated gain was - 42.87 kilograms ha-1. The annual genetic gain was - 1.21%. Concluded that the genetic gain in the breeding program was virtually nil, or stable, from 1997/98 to 2007/08*
- **KEYWORDS:** *Oryza sativa; REML/BLUP; genetic gain; evaluation genotypic.*

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