

# Morphological analysis of grain rice genotypes from Vale do Ribeira, São Paulo State, Brazil



Samuel Ferrari, ferrari@registro.unesp.br<sup>(1)</sup>; Pablo Forlan Vargas<sup>(1)</sup>; Melina Rodrigues Alves Carnietto<sup>(1)</sup>; Gustavo Bispo Marchesin<sup>(1)</sup>, Enes Furlani Júnior<sup>(2)</sup>; João Vitor Ferrari<sup>(2)</sup>, Ocimar José Baptista Bim<sup>(3)</sup>, Heitor Petinari Ferrari<sup>(4)</sup>.

(1) Agriculture, São Paulo State University, Registro, Brazil; (2) Crop Science, São Paulo State University, Ilha Solteira, Brazil; (3) Agricultural Engineer from Instituto Florestal SMA – Registro-SP; (4) Post-Graduation of Geography of Londrina State University, Câmpus de Londrina-PR, Department of Geography.

## INTRODUCTION

At Brazil, rice is the most consumed cereal, with average per capita consumption of 40-50 kg year<sup>-1</sup> of polished rice grain. This cereal, much is obtained by the type "agulhinha" grain, however, part of the population enjoys other types such as "Moti" rice and "Cateto" rice. The objective of this study was characterizing the morphology of rice grains genotypes (*Oryza sativa* L.) grown in upland condition in Vale do Ribeira-SP.

## MATERIAL AND METHODS

Rice grains were collected in February 2015 in quilombos of Barra do Turvo and Eldorado city.

Genotypes were given the names: ORV15011, ORV15012, ORV15013, ORV15014, ORV15015, ORV15016, ORV15017, ORV15018, ORV15019, ORV15020 and IAC 202 (control).

Reviews in the grains were held in bark of genotypes: 1000-grains Mass: weighing three samples of 1000 grains (13% wet basis). Length and width of the grains: measured with a digital caliper on 10 grains. Length / width ratio: the value obtained by dividing the length by the width of the grains.

The means were submitted to analysis of variance (F test) and the means compared by Skott Knott test (5% probability).

### RESULTS

The IAC 202 cultivar had the lowest weight of 1000-grains (20,95g), followed by genotype ORV15017 (23,07g) while ORV15015 genotype had the highest average (37,02g).

For length grains, genotypes ORV15011, ORV15012, ORV15018, ORV15015, ORV15014 and ORV15019 had the highest average with values between 9.56 and 10.10mm.

For the width of the grain IAC 202 and genotype ORV15017 had the lowest average with 2.29 and 2.34mm respectively.

For the length / width ratio ORV15017 genotype and the IAC 202 had the highest grain average (3.81 and 3.98 respectively).

### CONCLUSION

The results indicate genetic variability among rice genotypes found in the Vale do Ribeira, São Paulo State, Brazil.









