

## Production of Banana Genotypes under Subtropical Conditions in the Ribeira Valley, São Paulo, Brazil

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The search for new cultivars combining resistance or tolerance to pests and diseases, high productivity and organoleptic characteristics similar to the traditionally grown crops is the major objective of banana breeding. This work aimed to evaluate the production of different banana genotypes under Ribeira Valley conditions, Brazil. The experiment was carried out in a randomized design with 20 treatments (banana genotypes) and eight repetitions. The hybrid genotypes were separated into two banana groups: AAAA ('Bucaneiro', 'FHIA-02' and 'FHIA-17') and AAAB, further subdivided in three types: Prata-like ('Garantida', 'FHIA-18', 'Maravilha', 'PA42-44' and 'PA94-01'); Pacovan-like ('Japira', 'Pacovan Ken', 'PV79-34', 'PV94-01' and 'Vitoria'); and Maçã-like ('Tropical', 'YB42-03' and 'YB42-07'). These hybrids were compared with the cultivars 'Grande Naine' (AAA, Cavendish), 'Prata-Anã' (AAB), 'Pacovan' and 'Yangambi', which have vegetative, productive and sensorial characteristics similar to the evaluated hybrids. Over two production cycles, the following production parameters were evaluated: bunch fresh weight (kg), yield ( $\text{t}\cdot\text{ha}^{-1}\cdot\text{year}^{-1}$ ), number of bunches, total number of fruits per bunch, fresh weight (kg), length (cm) and diameter (mm) of fruit of the 2nd hand. Data from these parameters were calculated according to confidence intervals, and separated into the different banana groups and types. The highest yields were observed in the second cycle for all tested genotypes. In AAA and AAAA group, 'FHIA-02' and 'FHIA-17' showed the highest productivity (31.5 and  $30.7 \text{ t}\cdot\text{ha}^{-1}\cdot\text{year}^{-1}$ , respectively). In AAB and AAAB group type Prata, 'PA94-01' and 'FHIA-18' stood out ( $21.6$  and  $21.3 \text{ t}\cdot\text{ha}^{-1}\cdot\text{year}^{-1}$ , respectively), whereas in the Pacovan type, 'PV94-01' obtained a yield of  $29.9 \text{ t}\cdot\text{ha}^{-1}\cdot\text{year}^{-1}$ . 'Yangambi' was the most productive genotype in the Maçã type ( $20.8 \text{ t}\cdot\text{ha}^{-1}\cdot\text{year}^{-1}$ ). Based on the results, it can be concluded that the banana genotypes 'FHIA-02', 'FHIA-17', 'FHIA-18', 'Garantida', 'PA94-01', 'Japira', 'Pacovan Ken', 'PV94-01', 'Vitoria', 'Yangambi', 'Tropical' and 'YB42-07' have potential for cultivation in the Ribeira Valley, Brazil.