

**BEANS FROM PARANÁ STATE BRAZIL**



1 2 3 4 5



6 7 8 9 10



11 12 13 14 15



16 17 18 19 20



21 22 23 24 25

} 2.57 mm

Table 1. Cultivar Names, Gene Pool Origin, Commercial Class, Total Protein, Soluble Amino Acids, and Starch Content in Seeds of 25 Dry Bean Landraces grown in Paraná State, in Southern Brazil (\*,\*\*)

Cultivars	Gene Pool Origin	Commercial Seed Class	Seed weight (g) <sup>z</sup>	Total Protein Content (%) <sup>y</sup>	Total Soluble Amino Acids (μmol.g <sup>-1</sup> ) <sup>y</sup>	Starch (%)
1. Carioca 1	MA <sup>x</sup>	Carioca	27	15.1 d	1185 c	47.2 a
2. Carioca 2	MA	Carioca	24	20.9 c	1587 b	47.8 a
3. Carioca 3	MA	Carioca	24	13.7 d	1363 c	46.4 a
4. Carioca 4	MA	Carioca	26	20.9 c	1661 b	44.8 b
5. Carioca 5	MA	Carioca	26	21.3 c	1519 c	41.0 b
6. Carioca 6	MA	Carioca	26	13.0 d	1163 c	40.1 b
7. Carioca Claro	MA	Carioca	25	11.5 d	1522 c	40.7 b
8. Carioca Pitoko	MA	Carioca	27	16.6 d	1370 c	39.7 b
9. Carioca Pintado 1	MA	Carioca	23	18.1 c	1428 c	46.5 a
10. Carioca Pintado 2	MA	Carioca	24	30.3 a	1387 c	40.5 b
11. Iapar 31	MA	Carioca	22	23.0 c	1556 b	47.5 a
12. Preto 1	MA	Preto	20	24.5 b	1616 b	40.8 b
13. Preto 2	MA	Preto	20	19.0 c	1665 b	41.9 b
14. Preto 3	MA	Preto	21	30.3 a	1807 b	42.3 b
15. Preto 4	MA	Preto	20	13.7 d	1645 b	40.5 b
16. Navy-UEM	MA	Navy	24	24.5 b	2120 a	37.6 b
17. Rosinha	MA	Rosinha	22	22.4 c	1414 c	39.1 b
18. Jalo Pintado 1	A	Manteigão	47	36.0 a	1397 c	44.2 a
19. Jalo Pardo	A	Manteigão	36	25.2 b	1615 b	44.9 a
20. Jalo Vermelho	A	Manteigão	34	33.9 a	1480 c	40.9 b
21. Jalo Mulato	A	Manteigão	37	22.4 c	1463 c	44.9 a
22. Jalo de Listras Pretas	A	Manteigão	40	27.3 b	1367 c	41.7 b
23. Jalo de Listras Vermelhas	A	Manteigão	41	26.9 b	1448 c	40.4 b
24. Roxinho	A	Manteigão	39	32.4 a	1775 b	42.8 b
25. Bolinha	A	Manteigão	33	34.7 a	1608 b	40.6 b
Mean				23.1	1526	42.6
Coefficient of Variation (%)				16.0	14.0	7.61

<sup>z</sup>Seed weight= weight of 100 seeds (g).

<sup>y</sup>Calculated at 13% seed moisture.

<sup>x</sup>MA=Middle American; A- Andean

\*Means in a column with different letters are significantly different ( $p \leq 0.05$ ), Scott Knott test (1974). Means represent triplicates for each replicate, N= 12.

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