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Introduction

- Phoma leaf spot (PLS) is a fungal disease.
- Causal agent: *Boeremia exigua* pv. *coffaeae*, formerly classified as *Phoma tarda*.
- Few studies about the genetic resistance of cultivars to PLS.
- Aim:** to evaluate the resistance of cultivars to two isolates of *B. exigua* pv. *coffaeae*.

Materials/Methods

- Plant materials:** 13 Arabica coffee cultivars (Table 1).
- Isolates of *B. exigua* pv. *coffaeae*:** IBLF 1199 and IBLF 1208 from two locations of Minas Gerais, Brazil.
- Inoculation:** performed on the last pair of leaves, completely expanded from each seedling.
- Experiment:** factorial scheme (13 cultivars x 2 isolates), in a completely randomized design.
- Variable **% injured leaf area (%ILA)** were submitted to statistical analysis.

Table 1: Means of severity (% of injured leaf area) in an experiment with seedlings inoculated with two isolates of *Boeremia exigua* pv. *coffaeae*.

Cultivars	Isolates		General mean
	IBLF 1199 (I)	IBLF 1208 (I)	
Catuaí V. IAC 99 (susceptible check)	55.38 a A	37.19 abc A	46.29
Mundo Novo	53.10 a A	41.02 abc A	47.06
IPR 107	46.12 a A	59.62 a A	52.87
IPR 100	40.75 a A	42.71 abc A	41.73
IPR 108	39.73 a A	55.70 ab A	47.72
IPR 104	40.55 a A	34.06 abc A	37.31
Icatu V. IAC 4045	31.81 ab A	45.75 abc A	38.78
IPR 106	31.55 ab B	57.66 ab A	44.61
IAPAR 59	5.34 bc B	39.80 abc A	22.57
Catuaí A. 2SL (resistant check)	4.01 c B	23.83 bcd A	13.92
IPR 102	0.41 c A	3.94 d A	2.18
IPR 103	0.25 c B	23.12 cd A	11.69
IPR 99	0 c A	5.96 d A	2.98
General mean	26.85	36.18	31.52
CV (%)	18.75		

¹Means followed by the same uppercase letter in the row and lowercase letter in the column do not differ from each other by the Tukey test of means at 5%. Data transformed to $\sqrt{(x+10)}$.



Figure 1: Phoma leaf spot symptoms in leaves of cultivars Catuaí, IPR 102 and IPR 103 inoculated with the isolate IBLF 1199.

Results/Discussion

- There was a significant interaction between cultivars x isolates, indicating the presence of different biotypes or physiological races.
- Cultivars with lowest means of %ILA to IBLF 1199 (Figure 1): IPR 99, IPR 102, IPR 103, IAPAR 59 and Catuaí Amarelo 2SL.
- Cultivars with lowest means of %ILA to IBLF 1208: IPR 99 and IPR 102.
- IBLF 1208 showed the highest overall mean of %ILA, indicating that it is a more aggressive isolate.

Conclusion/Perspectives

- IPR 99, IPR 102, IPR 103, Catuaí Amarelo 2SL and IAPAR 59 were resistant to IBLF 1199, while the first two were also resistant to IBLF 1208.
- IPR 103 and Catuaí Amarelo 2SL showed intermediate resistance to IBLF 1208.
- These results indicate the probable existence of biotypes or physiological races of *B. exigua* var. *coffaeae* and that, in the evaluated genotypes, the type of resistance is qualitative and quantitative.