EMBRAPA, Empresa Brasileira de Pesquisa Agropecuaria, 56.300 - Petrolina-PE

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Behavior of Three Cowpea Varieties in Relation to Leafhopper Attack in Northeastern Brazil

The cowpea varieties "Pitiuba", "Sempre Verde" and "VITA-3" have been tested in Petrolina-PE, northeastern Brazil, to observe their behavior in relation to the attack of leafhopper, Empoasca kraemeri Ross and Moore. The first two are common, local varieties, whereas the third was recently introduced from Nigeria, where, reportedly, it is tolerant to Empoasca dolichi (Paoli).

Table 1 shows foliar damage, degree of infestation of the leafhopper and its effect on productivity.

It is observed that all three varieties presented similar yield reductions due to the attack of leafhopper, regardless of the markedly lower leaf damage rate presented by VITA-3.

Table 1. Foliar damage, leafhopper infestation and cowpea productivity as affected by E. kraemeri attack in northeastern Brazil.

Variety	Foliar Damage Rate 1/	Nymphs per leaf 2/	Yield (kg/ha) Sprayed 3/	Yield (kg/ha) Check	% Yield Reduction
			First Replicate (planted on 4-23-80)		
Pitiuba	2.15	0.24	1847	1240*	32.9
S. Verde	2.63	0.29	1641	1220	25.7
Vita - 3	1.82	0.34	1995	1158*	42.0
			Second Replicate (plnated 8-13-80)		
Pitiuba	3.48	2.47	2952	999*	66.2
S. Verde	3.45	2.66	2486	524*	79.0
Vita - 3	2.18	1.93	2895	816*	71.9
			Third Replicate (planted 11-2-80)		
Pitiuba	3.98	1.49	2881	1520*	47.3
S. Verde	4.15	1.63	1227	142*	88.4
Vita - 3	2.45	1.45	1680	524*	68.8

1/ Evaluated 50 days after planting, based on 1 to 5 scale (1=no damage, 5= severe cupping and yellowing of keaves).

2/ Weekly average, from 20 to 60 days after planting.

3/ Weekly protected with monocrotophos.

* Significantly different from sprayed at p = 0.50 (F test).

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