Evaluation of Sorghum Entries for Disease Resistance in Northeastern Brazil

M. M. Choudhury and P. A. A. Aguiar (Petrolina)

A field trial of 30 promising entries of sorghum was conducted at Afranio-PE in 1977 to screen for their reaction to diseases that occur in the semi-arid region of the northeastern Brazil. Three diseases, mosaic, rust and anthracnose, were found in this experiment. The evaluations for disease resistance were performed after one month of flowering. Table 1 presents the average disease ratings of two replicates of the entries. Most of the entries seemed to be resistant or tolerant to mosaic and rust. The entries Ck 60B and (IS 8361) were found to be moderately resistant to mosaic, and entry (CMS X S601) showed moderately resistant to rust. Although a large number of the entries were observed to be resistant or moderately resistant to anthracnose, entries (CMS X S904), TX 7078 and SC 175-14 were moderately susceptible.

Table 1. Evaluation of selected sorghum entries for disease resistance at Afranio-PE, Brazil, 1977.

Entry	Mosaic	Rust	Anthracnose	
			Leaf	Penducle
TX 2536	2.5	2.0	3.0	2.0
Ck 60B	3.0	2.0	2.0	1.0
(CMS x S 109)	1.5	2.0	2.5	1.5
(IS 8361)	3.0	1.0	2.5	1.5
PU 932242 B	2.0	1.0	2.0	1.5
SC 599-6-3	2.0	2.0	2.5	1.0
REDLAN B	1.5	1.0	2.0	1.0
SC 112-14	1.5	1.5	3.5	2.0
(CMS x S904)	1.5	2.0	4.0	2.0
TX 7078	1.0	1.5	4.5	2.0
TX 398 (MARTIN)	1.5	1.5	3.5	1.5
NK 233	2.0	1.5	2.0	1.0
SC 175-14	1.5	1.5	4.0	2.0
SC-173-12-6	1.5	2.0	3.0	1.5
(CMS x S 905)	1.5	2.5	2.5	1.0
SC 120-14	1.5	1.0	2.0	1.0
SC 599-6-10	2.0	1.5	2.5	1.5
SC 599-6 x SC 134-6	1.5	2.0	3.0	1.5
SC 103-12	2.5	2.0	1.0	1.0
SC 109-12	1.0	1.0	2.5	1.0
ICA TANAIMA	1.5	2.5	2.0	1.0
SC 170-6-17	1.0	1.0	2.0	1.0
SC 108-14	2.0	1.5	1.5	1.0
IS 4757	1.0	1.5	1.0	1.0
E 57 A	1.5	1.5	1.0	1.0
SC 107-6-8	2.0	1.0	3.0	1.5
CMS x S 307	1.5	1.5	1.5	1.0
CMS x S 308	1.5	1.5	2.5	1.0
(CMS x 904)	1.5	1.0	2.5	1.0
(CMS x S 601)	1.5	3.0	1.0	1.0

Disease rating: 1 = highly resistant; 2 = resistant; 3 = moderately resistant; 4 = moderately susceptible; 5 = susceptible; 6 = highly susceptible.