



# Sweet Sorghum an alternative energy Crop

Grant Agreement n° 227422

**WP3**

**Deliverable 3.7:**

*Ten sweet sorghum R-lines identified for  
use to produce hybrid cultivars*

Composition of the consortium

**CIRAD**  
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Based on data from a multilocation trial conducted in Brazil at 6 different locations (tables 1 and 2), the 17 CMSXS cultivars from 629 to 648 are all candidates as parental R-lines.

**Table 1. Average Biomass production t ha<sup>-1</sup> in six locations in Brazil of 24 potential R-lines developed by Embrapa and one hybrid check (BR601) 2009/2010.**

Cultivar	Sete Lagoas-MG	Nova Porteirinha-MG	Jaíba-MG	Pelotas-RS	Sinop-MT	Goiânia-CO
<b>CMSXS629</b>	48.48 b A	53.90 a A	35.76 b B	27.57 B	51.33 a A	54.29 b A
<b>CMSXS630</b>	57.24 a B	46.52 b C	46.71 a C	26.48 D	48.10 b C	76.05 a A
<b>CMSXS631</b>	46.00 b A	50.14 b A	39.38 b B	32.33 B	45.52 b A	54.19 b A
<b>CMSXS632</b>	46.19 b A	43.38 b A	36.81 b B	26.14 B	45.05 b A	51.86 c A
<b>CMSXS633</b>	49.05 b A	53.81 a A	42.29 a B	22.00 C	40.19 b B	57.95 b A
<b>CMSXS634</b>	53.81 a A	55.95 a A	32.57 b B	37.29 B	57.62 a A	62.57 b A
<b>CMSXS635</b>	49.81 b B	49.52 b B	35.29 b C	32.76 C	49.24 a B	61.81 b A
<b>CMSXS636</b>	40.48 b A	45.29 b A	30.90 b A	15.90 B	44.48 b A	39.33 c A
<b>CMSXS637</b>	53.43 a A	48.05 b A	28.90 b B	25.67 B	43.33 b A	55.00 b A
<b>CMSXS638</b>	50.29 b A	54.19 a A	37.90 b B	28.05 B	37.14 b B	56.71 b A
<b>CMSXS639</b>	47.24 b B	46.90 b B	39.76 b B	23.19 C	47.33 b B	64.33 b A
BRS506	49.05 b A	59.62 a A	43.05 a B	30.05 C	55.62 a A	55.24 b A
<b>CMSXS642</b>	48.57 b A	43.48 b A	31.62 b B	28.62 B	54.48 a A	55.38 b A
<b>CMSXS643</b>	65.14 a A	49.62 b B	41.57 a B	21.14 C	43.90 b B	73.14 a A
<b>CMSXS644</b>	63.90 a A	63.14 a A	43.22 a B	35.24 B	45.62 b B	57.52 b A
BR507	48.19 b A	52.29 b A	44.48 a A	25.14 B	44.48 b A	57.62 b A
<b>CMSXS646</b>	60.19 a A	48.67 b B	44.29 a B	26.62 C	42.86 b B	60.33 b A
<b>CMSXS647</b>	58.19 a A	60.43 a A	48.43 a A	28.43 B	61.33 a A	57.71 b A
<b>CMSXS648</b>	47.43 b A	61.29 a A	40.71 a B	31.43 B	52.86 a A	58.71 b A
BR 500	44.19 b A	45.86 b A	30.95 b B	26.81 B	52.19 a A	49.95 c A
BR501	48.00 b B	57.14 a A	54.29 a A	18.33 C	41.81 b B	47.43 c B
BR503	52.95 a A	49.76 b A	47.52 a A	23.91 B	27.05 b B	35.91 c B
BR505	56.29 a A	46.90 b A	37.48 b B	30.86 B	49.90 a A	43.10 c A
BR504	40.48 b A	44.38 b A	37.33 b A	26.62 B	46.86 b A	43.29 c A
<b>BRS601</b>	<b>49.71 b B</b>	<b>60.19 a A</b>	<b>45.33 a B</b>	<b>32.29 C</b>	<b>43.33 b B</b>	<b>47.00 c B</b>

\*Averages followed by the same small letter and the same capital letter are not different in the same column and same line respectively - Scott Knott, a 5% probability .

**Table 1. Brix in six locations in Brazil of 24 potential R-lines developed by Embrapa and one hybrid check (BR601) 2009/2010.**

Cultivar	Sete Lagoas-MG	Nova Porteirinha-MG	Jaíba-MG	Pelotas-RS	Sinop-MT
<b>CMSXS629</b>	18.5 a A	16.6 a A	18.7 a A	15.9 a A	16.9 c A
<b>CMSXS630</b>	18.4 a A	14.6 b B	18.9 a A	16.9 a A	18.2 b A
<b>CMSXS631</b>	19.0 a A	16.4 a A	18.5 a A	18.6 a A	21.0 a A
<b>CMSXS632</b>	18.7 a A	15.1 b B	18.5 a A	15.1 b B	18.2 b A
<b>CMSXS633</b>	20.1 a A	18.4 a A	19.4 a A	18.6 a A	22.1 a A
<b>CMSXS634</b>	19.7 a A	16.8 a B	21.5 a A	17.8 a B	21.4 a A
<b>CMSXS635</b>	13.2 c B	15.1 b B	20.2 a A	13.2 b B	13.4 d B
<b>CMSXS636</b>	19.2 a A	14.8 b B	19.3 a A	11.7 b C	16.6 c A
<b>CMSXS637</b>	21.4 a A	17.5 a B	18.8 a B	18.2 a B	20.9 a A
<b>CMSXS638</b>	18.6 a A	12.4 c B	18.4 a A	16.5 a A	17.1 c A
<b>CMSXS639</b>	19.4 a A	17.2 a B	19.6 a A	16.8 a B	16.1 c B
BRS506	20.3 a A	15.5 b B	18.5 a A	16.1 a B	20.1 a A
<b>CMSXS642</b>	20.4 a A	17.4 a B	19.6 a A	18.0 a B	21.7 a A
<b>CMSXS643</b>	18.7 a A	14.6 b A	16.8 a A	16.7 a A	17.6 c A
<b>CMSXS644</b>	16.8 b A	15.3 b A	16.7 a A	13.7 b A	16.5 c A
BR507	19.7 a A	17.8 a B	19.9 a A	17.6 a B	21.2 a A
<b>CMSXS646</b>	19.9 a A	18.8 a A	20.0 a A	17.9 a A	18.4 b A
<b>CMSXS647</b>	16.3 b A	14.1 b B	17.9 a A	14.3 b B	16.4 c A
<b>CMSXS648</b>	20.1 a A	13.0 c C	16.6 a B	15.3 b C	17.2 c B
BR 500	19.0 a A	11.7 c B	18.3 a A	16.8 a A	18.4 b A
BR501	16.7 b A	15.6 b A	18.0 a A	16.7 a A	15.3 c A
BR503	16.6 b A	11.7 c B	17.5 a A	13.9 b B	11.7 d B
BR505	17.3 b A	17.0 a A	19.5 a A	17.3 a A	17.8 b A
BR504	18.7 a A	14.4 b B	17.0 a A	13.3 b B	18.5 b A
<b>BRS601</b>	<b>13.7 c A</b>	<b>14.3 b A</b>	<b>15.8 a A</b>	<b>13.9 b A</b>	<b>12.2 d A</b>

\*Averages followed by the same small letter and the same capital letter are not different in the same column and same line respectively - Scott Knott, a 5% probability .