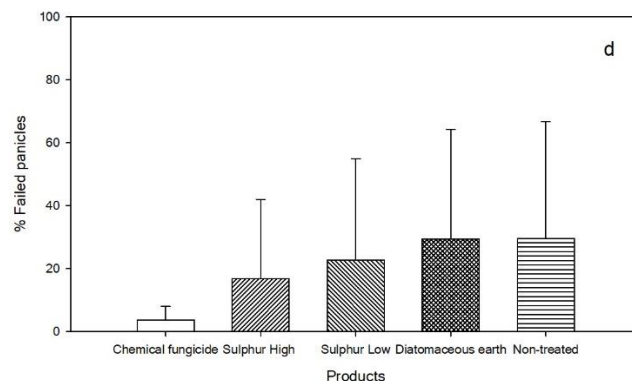
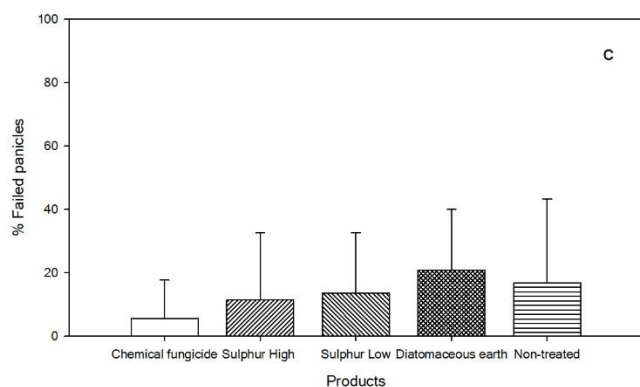
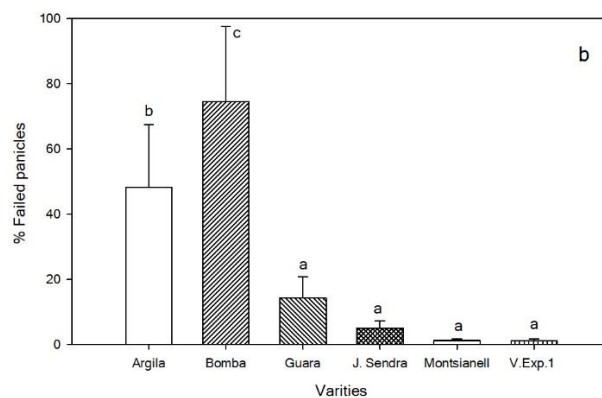
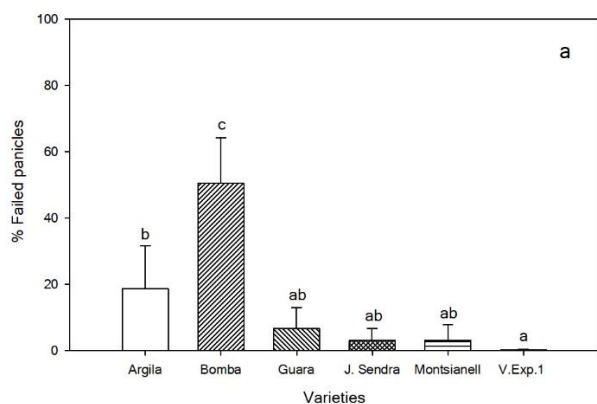
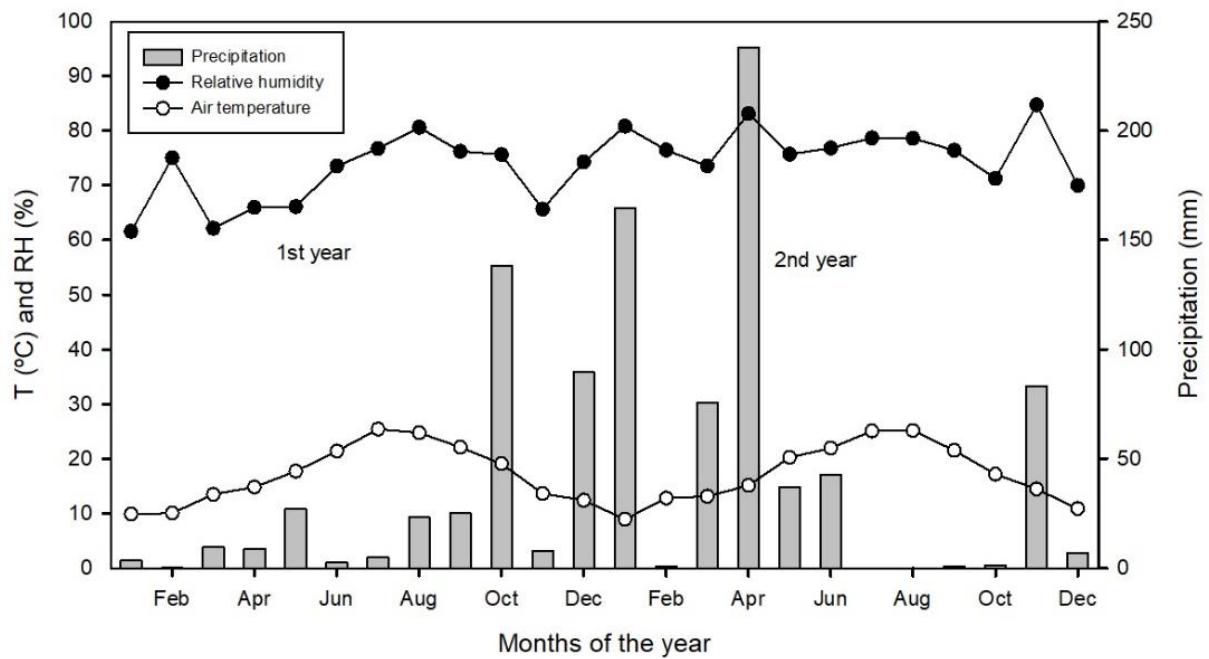


MO-F3	BO-F3	GU-F3	AR-F3	JS-F3	EX-F3	AR-F4	MO-F4	EX-F4	JS-F4	BO-F4	GU-F4
MO-F1	BO-F1	GU-F1	AR-F1	JS-F1	EX-F1	AR-F3	MO-F3	EX-F3	JS-F3	BO-F3	GU-F3
MO-F5	BO-F5	GU-F5	AR-F5	JS-F5	EX-F5	AR-F2	MO-F2	EX-F2	JS-F2	BO-F2	GU-F2
MO-F2	BO-F2	GU-F2	AR-F2	JS-F2	EX-F2	AR-F5	MO-F5	EX-F5	JS-F5	BO-F5	GU-F5
MO-F4	BO-F4	GU-F4	AR-F4	JS-F4	EX-F4	AR-F1	MO-F1	EX-F1	JS-F1	BO-F1	GU-F1
GU-F5	EX-F5	BO-F5	MO-F5	AR-F5	JS-F5	BO-F2	JS-F2	AR-F2	GU-F2	EX-F2	MO-F2
GU-F4	EX-F4	BO-F4	MO-F4	AR-F4	JS-F4	BO-F5	JS-F5	AR-F5	GU-F5	EX-F5	MO-F5
GU-F3	EX-F3	BO-F3	MO-F3	AR-F3	JS-F3	BO-F1	JS-F1	AR-F1	GU-F1	EX-F1	MO-F1
GU-F2	EX-F2	BO-F2	MO-F2	AR-F2	JS-F2	BO-F4	JS-F4	AR-F4	GU-F4	EX-F4	MO-F4
GU-F1	EX-F1	BO-F1	MO-F1	AR-F1	JS-F1	BO-F3	JS-F3	AR-F3	GU-F3	EX-F3	MO-F3

SM Figure 1. Schematic for the experimental design: GU-Guara cultivar, EX-Experimental cultivar, BO-Bomba cultivar, MO-Montsianell cultivar, AR-Argila cultivar, and JS-J. Sendra cultivar. F1-Non-treated, F2-Chemical fungicide, F3-High-dose Sulphur, F4-Low-dose Sulphur, and F5-Diatomaceous earth.



SM Figure 2. Blast failed panicles per cultivar in non-treated plot (Control): Argila (white); Bomba (lines increasing); Guara (lines decreasing); J. Sendra (cross hatch); Montsianell (horizontal lines) and V.Exp.1 (vertical lines) during the first (a) and second (b) years. Blast failed panicles per treatment in six japonica rice cultivars during the first year (c) and second year (d): Chemical fungicide (white); high-dose sulphur (lines increasing); low-dose sulphur (lines decreasing); diatomaceous earth (mixed lines) and non-treated (horizontal lines). Different letters represent significant differences at the 95% confidence interval according to the Anova LSD test.



SM Figure 3. Data of climate conditions from a meteorological station in Amposta for years 2019 and 2020: precipitation in mm (right axis) and temperature in white dots and relative humidity in black dots (left axis).

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48 **SM Table 1.** Panicle blast incidence per cultivar and treatment during the first year. Different
 49 letters represent significant differences at the 95% confidence interval according to the ANOVA
 50 LSD test.

S/No.	Treatments	Argila	Bomba	Guara	J. Sendra	Montsianell	V.Exp.1
1	Chemical Fungicide	4 ± 4 a	30 ± 17 a	2 ± 0.7 a	1 ± 0.5 a	0.4 ± 0.4 a	0.1 ± 0.2 a
2	High-dose sulphur	11 ± 6.5 a	22 ± 81.5 ab	5 ± 3.1 ab	1.6 ± 0.3 a	0.8 ± 0.5 a	0.2 ± 0.3 a
3	Low-dose sulphur	29 ± 47.1 a	32 ± 91 ab	10 ± 12.3 ab	2 ± 1.3 a	2 ± 1.3 a	0.3 ± 0.4 a
4	Diatomaceous earth	43 ± 44 a	52 ± 30.7 ab	24 ± 26.8 b	16 ± 24.5 a	14 ± 23 a	0.9 ± 0.3 b
5	Non-treated	28 ± 23.1 a	68 ± 30.2 b	5 ± 1.8 ab	3 ± 1.4 a	5 ± 4.2 a	1 ± 0.3 ab
	F	1.71	5.13	1.76	1.05	1.18	2.41
	CV (%)	120	34	138	234	236	74
	P-value	0.1974	0.0068	0.185	0.4468	0.3823	0.0861

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60 **SM Table 2.** Panicle blast severity per cultivar and treatment during the first year. Different letters
 61 represent significant differences at the 95% confidence interval according to the ANOVA LSD
 62 test.

S/No.	Treatments	Argila	Bomba	Guara	J. Sendra	Montsianell	V.Exp.1
1	Chemical Fungicide	54 ± 10.7 a	100 ± 0	36 ± 7.4 a	48 ± 16.3 a	44 ± 31.5 a	25 ± 28.9 ab
2	High-dose sulphur	86 ± 9.9 b	100 ± 0	78 ± 8.5 bc	63 ± 12.3 ab	44 ± 20.3 a	1 ± 1 a
3	Low-dose sulphur	84 ± 8.2 b	100 ± 0	70 ± 13.9 b	63 ± 24.1 ab	59 ± 13.4 ab	16 ± 18.9 a
4	Diatomaceous earth	81 ± 13.2 b	100 ± 0	70 ± 9.7 b	60 ± 15.9 ab	77 ± 26.3 b	63 ± 39 b
5	Non-treated	81 ± 7.8 b	100 ± 0	86 ± 7.1 c	77 ± 12.9 b	62 ± 13.7 ab	20 ± 23.2 a
	F	4.10	sd	9.98	1.42	2.88	1.65
	CV (%)	13.28	0.00	13.94	26.43	31.67	112.55
	P-value	0.0159	sd	0.0004	0.2813	0.0518	0.2137

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74 **SM Table 3.** Panicle blast incidence per cultivar and treatment during the second year. Different
 75 letters represent significant differences at the 95% confidence interval according to the ANOVA
 76 LSD test.

S/No.	Treatments	Argila	Bomba	Guara	J. Sendra	Montsianell	V. Exp.1
1	Chemical Fungicide	25 ± 23.6 a	31 ± 11.1 a	9 ± 6.6 a	3 ± 1 a	1 ± 0.6 ab	1 ± 0.2 a
2	High-dose sulphur	42 ± 25.7 ab	82 ± 14.8 b	14 ± 5.8 a	6 ± 1.8 b	1 ± 0.6 ab	2 ± 1.2 ab
3	Low-dose sulphur	59 ± 32.9 bc	91 ± 6.8 b	19 ± 8.9 ab	5 ± 1.1 b	1 ± 0.9 ab	2 ± 1 bc
4	Diatomaceous earth	68 ± 36.8 c	95 ± 3.3 b	40 ± 34.3 b	12 ± 1.2 c	2 ± 0.7 bc	4 ± 1.6 cd
5	Non-treated	75 ± 39 c	95 ± 3.7 b	21 ± 3.8 ab	13 ± 1.8 c	3 ± 1.2 c	4 ± 2.5 d
	F	13.47	21.29	2.78	22.02	5.90	6.24
	CV (%)	26.96	11.40	69.56	18.88	34.38	46.09
	P-value	0.0001	<0.0001	0.0576	<0.0001	0.0038	0.003

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SM Table 4. Panicle blast severity per cultivar and treatment during the second year. Different letters represent significant differences at the 95% confidence interval according to the ANOVA LSD test.

S/No.	Treatments	Argila	Bomba	Guara	J. Sendra	Montsianell	V. Exp.1
1	Chemical Fungicide	37 ± 28.5 a	34 ± 13.8 a	36 ± 4 a	35 ± 5 a	58 ± 29 a	27 ± 4.2 a
2	High-dose sulphur	68 ± 21.8 b	76 ± 24.4 b	61 ± 21.3 bc	42 ± 11.7 ab	75 ± 20.4 a	41 ± 17.2 ab
3	Low-dose sulphur	77 ± 15.8 bc	88 ± 10.4 b	59 ± 16.8 b	44 ± 7 b	53 ± 17.8 a	44 ± 3.3 b
4	Diatomaceous earth	80 ± 14.1 bc	94 ± 3.4 b	72 ± 11.5 c	60 ± 13.6 c	57 ± 22.6 a	42 ± 5.7 ab
5	Non-treated	88 ± 10.7 c	93 ± 3.9 b	70 ± 20.9 bc	57 ± 12 c	60 ± 18.9 a	47 ± 15.8 b
	F	16.45	8.88	15.26	17.38	1.39	2.16
	CV (%)	13.73	17.16	13.00	10.41	32.57	25.29
	P-value	<0.0001	0.0006	<0.0001	<0.0001	0.2947	0.1152