

# Optimization of Solid-State Fermentation of Switchgrass Using White-Rot Fungi for Biofuels Production

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SUPPLEMENTARY MATERIAL

**Table S1.** Percentage total available carbohydrate, cellulose loss, delignification, and selectivity value of fungal treated switchgrass.

Run	<i>Phanerochaete chrysosporium</i>								<i>Trametes versicolor</i> 52J				<i>Trametes versicolor</i> m4D			
	X <sub>1</sub> °C	X <sub>2</sub> d	X <sub>3</sub> mL	X <sub>4</sub> mm	TAC %	Delignification %	CL %	SV	TAC %	Delignification %	CL %	SV	TAC %	Delignification %	CL %	SV
1	28	35	10	1.6	58.9	12.0	2.2	5.4	54.5	0.4	6.9	0.1	48.0	21.7	21.5	1.0
2	28	21	10	1.6	57.5	23.6	0.0	0.0	57.8	-0.4	-4.7	0.1	43.5	7.1	32.8	0.2
3	28	21	5	3.2	55	19.4	4.7	4.2	46.2	20.6	17.4	1.2	49.6	-7.5	16.3	-0.5
4	34	28	10	1.6	56.6	15.3	1.1	13.9	54.5	-45.6	7.4	-6.1	56.1	10.8	-2.2	-4.9
5	22	28	15	3.2	45.7	8.2	17.4	0.5	57.6	8.2	0.8	10.0	57.0	10.8	2.2	4.9
6	34	35	10	3.2	55	-3.0	4.1	-0.7	63.9	-14.6	-7.7	1.9	54.5	5.2	-0.3	-19.0
7	28	28	10	3.2	47.1	-12.7	19.3	-0.7	51.7	-10.8	5.2	-2.1	48.4	7.1	17.4	0.4
8	28	28	15	6.4	55.5	13.8	2.5	5.6	57.7	-16.1	1.4	-11.7	51.8	6.4	5.0	1.3
9	28	28	5	1.6	58.9	-18.3	-7.7	2.4	56.1	1.5	1.1	1.4	59.9	5.2	-9.9	-0.5
10	22	28	10	1.6	50.1	-17.6	14.0	-1.3	53.0	3.0	5.0	0.6	58.1	21.3	-0.6	-38.7
11	28	21	10	6.4	53.4	10.1	5.5	1.8	57.7	-10.8	2.2	-4.9	42.6	9.0	28.1	0.3
12	34	21	10	3.2	56.9	12.7	0.8	15.4	58.4	-3.4	-2.2	1.5	43.6	-4.1	26.4	-0.2
13	22	35	10	3.2	49.4	-23.2	15.4	-1.5	52.2	-4.1	8.8	-0.5	60.7	15.0	-5.8	-2.6
14	28	35	10	6.4	57.6	13.1	2.5	5.3	60.1	-17.9	-7.2	2.5	50.2	21.7	11.6	1.9
15	28	28	10	3.2	46.7	-15.7	17.6	-0.9	59.2	7.5	-1.1	-6.8	46.1	7.1	24.0	0.3
16	28	28	10	3.2	51.2	-29.2	5.2	-5.6	50.4	7.1	14.0	0.5	58.1	8.6	-4.7	-1.8
17	28	28	5	6.4	60.8	17.9	-5.5	-3.3	48.4	-12.3	18.7	-0.7	58.0	14.6	-10.2	-1.4
18	22	21	10	3.2	44.2	13.8	23.7	0.6	55.0	-3.4	5.5	-0.6	57.8	17.6	-8.5	-2.1
19	22	28	5	3.2	53.4	-15.7	7.4	-2.1	58.7	4.9	-0.3	-17.6	48.0	-7.9	17.1	-0.5
20	22	28	10	6.4	43.7	12.0	19.3	0.6	55.7	-12.3	5.8	-2.1	54.1	13.8	5.5	2.5
21	28	35	5	3.2	36.8	-5.6	39.4	-0.1	57.2	-7.9	0.0	0.0	53.3	10.8	3.3	3.3
22	28	21	15	3.2	59.3	9.0	-5.0	-1.8	58.3	-4.5	-7.2	0.6	43.1	-6.0	30.9	-0.2
23	28	28	10	3.2	45.3	-26.9	22.9	-1.2	56.8	11.6	0.3	42.1	41.0	15.3	32.8	0.5

24	28	35	15	3.2	46.9	12.3	23.1	0.5	67.6	21.3	-23.7	-0.9	54.6	22.4	5.5	4.1
25	28	28	10	3.2	43.3	-27.3	25.6	-1.1	53.1	21.7	4.4	4.9	44.6	10.8	25.3	0.4
26	28	28	15	1.6	53.7	-12.0	11.3	-1.1	55.8	-0.7	1.4	-0.5	52.3	10.5	9.6	1.1
27	34	28	10	6.4	46.3	18.7	13.5	1.4	63.2	17.6	-8.8	-2.0	60.8	17.6	-6.6	-2.7
28	34	28	15	3.2	66.7	20.2	-18.2	-1.1	54.4	-10.8	3.3	-3.3	73.4	22.4	-35.5	-0.6
29	34	28	5	3.2	53.1	13.1	9.9	1.3	36.1	-13.8	45.2	-0.3	54.2	5.2	7.2	0.7

X<sub>1</sub> = fermentation temperature; X<sub>2</sub> = fermentation time; X<sub>3</sub> = inoculum concentration; X<sub>4</sub> = hammer mill screen size; TAC = total available carbohydrate; CL = cellulose loss; SV = selectivity value