

Table S1. Quality parameters and proximate analysis of fermented beverage as affected by germplasm (G), inoculum dose (ID)

S.O.V.	TSC	pH	Alcoholic strength	Total alkaloids	Dry matter	Protein	Crude fibre	Fat	Ash content	Calcium
G	NS	NS	**	**	**	**	**	**	NS	NS
SD	NS	NS	NS	NS	NS	**	**	**	NS	NS
G x SD	NS	NS	*	*	*	**	**	*	*	*
LSD Test‡										
Germplasm										
Andino	11.80	4.11	6.35 a	0.82 a	15.50 a	2.38 a	1.85 a	0.17 a	0.20	0.04
Guaranguito	9.80	4.07	4.93 c	0.88 a	11.62 b	1.89 ab	1.26 b	0.14 a	0.17	0.02
Ecuadorian	10.60	3.95	5.44 b	0.57 b	12.20 ab	1.36 b	1.02 c	0.07 b	0.16	0.03
Peruvian	11.25	4.08	5.45 b	1.07 a	13.06 a	1.56 b	0.95 c	0.09 b	0.17	0.04
Starter Doses										
1.50%	10.90	4.12	5.59	0.86	13.12	2.16 a	1.77 a	0.15 a	0.20	0.03
2.50%	10.80	3.98	5.49	0.81	13.06	1.45 b	0.76 b	0.08 b	0.15	0.03
Germplasm x Starter Doses										
Andino										
1.50%	11.90	4.13	6.30 a	0.84 a	15.70 a	2.47 a	1.93 a	0.21 a	0.21a	0.05 a
2.50%	11.70	4.09	6.40 a	0.82 a	15.35 a	2.29 a	1.76 a	0.13 b	0.13 b	0.03 ab
Guaranguito										
1.50%	9.69	4.04	4.90 b	0.91 a	11.42 b	2.01 a	1.22 b	0.19 a	0.19 a	0.02 b
2.50%	9.66	4.09	4.95 b	0.85 a	11.83 b	1.77 b	1.29 b	0.09 b	0.15 a	0.02 b
Ecuadorian										
1.50%	10.66	4.22	5.50 a	0.64 b	11.53 b	1.45 b	1.07	0.10 a	0.19 a	0.04 a
2.50%	10.68	3.67	5.38 b	0.50 b	12.89 b	1.27 b	0.97	0.03 b	0.13 a	0.02 b
Peruvian										
1.50%	11.18	4.10	5.65 a	1.17 a	12.99 b	1.65 b	1.01	0.11 a	0.20 a	0.05 a
2.50%	11.13	4.07	5.25 b	0.97 a	13.13 b	1.47 b	0.89	0.07 b	0.14 b	0.03 ab

(*) and (**) significant at $p < 0.05$, $p < 0.01$, respectively, NS, not significant. S.O.V. Source of Variance ‡ For each factor, values followed by different letters, within the same column and factor were significantly different ($p < 0.05$), according to the least significant difference (LSD) test.

Table 2. Quality parameters and proximate analysis of tempeh as affected by germplasm (G), inoculum dose (ID).

S.O.V.	Total alkaloids	Dry matter	Protein	Crude fibre	Fat	Ash content	Calcium
G	**	**	**	NS	NS	NS	**
SD	**	**	**	**	NS	NS	**
G x SD	*	NS	*	*	NS	NS	*
LSD Test†							
Germplasm							
Andino	0.63 b	30.44 a	26.33 a	17.79	3.18	0.39	0.98 a
Guaranguito	1.04 a	23.83 b	15.10 b	13.09	2.08	0.27	0.38 b
Ecuadorian	1.04 a	25.55 ab	17.85 b	14.01	2.64	0.28	0.14 c
Peruvian	0.87 a	29.28 a	15.41 b	14.12	2.27	0.31	0.66 a
Starter doses							
1.50%	1.03 a	32.15 a	25.73 a	18.42 a	2.83	0.40	0.99 a
2.50%	0.74 b	22.45 b	11.65 b	11.11 b	2.25	0.24	0.10 b
Germplasm x Starter Doses							
Andino							
1.50%	0.70 b	32.38	29.29 a	18.46 a	3.38	0.41	1.03 a
2.50%	0.56 b	28.53	23.35 b	17.12 a	2.98	0.37	0.93 a
Guaranguito							
1.50%	1.08 a	24.45	15.98 c	14.20 b	2.12	0.29	0.40 b
2.50%	0.99 a	23.20	14.24 c	11.98 c	2.04	0.24	0.36 b
Ecuadorian							
1.50%	1.07 a	26.89	18.65 bc	14.54 b	2.80	0.29	0.16 c
2.50%	1.01 a	24.17	17.15 bc	13.56 c	2.49	0.28	0.12 c
Peruvian							
1.50%	0.93 a	31.03	16.22 c	15.04 b	2.31	0.33	0.70 a
2.50%	0.81 a	27.54	14.60 c	13.21 c	2.24	0.30	0.61 a

(*) and (**) significant at $p < 0.05$, $p < 0.01$, respectively, NS, not significant. S.O.V. Source of Variance ‡ For each factor, values followed by different letters, within the same column and factor were significantly different ($p < 0.05$), according to the least significant difference (LSD) test.

Table 3. Significance of the differences in the mean values of proximate analysis parameters of fermented beverage in the post hoc LSD test ($p < 0.05$).

<i>S. cerevisiae</i>	1.5%	2.5%
Alcoholic Strength (%)		
Andino	6.15 ^{az}	6.41 ^{az}
Guaranguito	4.71 ^{cy}	4.61 ^{cy}
Ecuadorian	5.42 ^{bz}	5.30 ^{bz}
Peruvian	5.55 ^{bz}	5.11 ^{bz}
Total alkaloids (%)		
Andino	0.87 ^{bz}	0.85 ^{bz}
Guaranguito	0.98 ^{bz}	0.93 ^{bz}
Ecuadorian	0.71 ^{bz}	0.68 ^{bz}
Peruvian	1.31 ^{az}	1.27 ^{az}
Protein (%)		
Andino	2.78 ^{az}	2.41 ^{az}
Guaranguito	2.36 ^{az}	1.93 ^{az}
Ecuadorian	1.65 ^{bz}	1.47 ^{bz}
Peruvian	1.86 ^{bz}	1.69 ^{bz}
Crude Fibre (%)		
Andino	2.27 ^{az}	2.03 ^{az}
Guaranguito	1.36 ^{bz}	1.27 ^{bz}
Ecuadorian	1.12 ^{bz}	1.01 ^{bz}
Peruvian	1.17 ^{bz}	1.05 ^{bz}
Fat (%)		
Andino	0.24 ^{az}	0.17 ^{az}
Guaranguito	0.26 ^{az}	0.13 ^{ay}
Ecuadorian	0.12 ^{bz}	0.04 ^{by}
Peruvian	0.14 ^{bz}	0.06 ^{by}
Calcium (%)		
Andino	0.06 ^{az}	0.04 ^{ay}
Guaranguito	0.03 ^{bz}	0.02 ^{bz}
Ecuadorian	0.06 ^{az}	0.03 ^{ay}
Peruvian	0.07 ^{az}	0.04 ^{ay}

The data represent average values of 12 tests. Different letters (a–d) in the same column indicate significant differences between cultivars, according to LSD test, at $p < 0.05$. Different letters (x–z) in the same row indicate significant differences between starter dosage within each cultivar, according to LSD test, at $p < 0.05$.

Table 4. Significance of the differences in mean values of quality and proximate analysis parameters of tempeh in the post hoc LSD test ($p < 0.05$).

<i>R. oligosporus</i>	0.015%	0.025%
Total alkaloids (%)		
Andino	0.82 ^{bz}	0.67 ^{bzy}
Guaranguito	1.32 ^{az}	1.2 ^{az}
Ecuadorian	1.38 ^{az}	0.99 ^{ay}
Peruvian	0.98 ^{bz}	0.72 ^{by}
Protein (%)		
Andino	32.43 ^{az}	28.65 ^{az}
Guaranguito	19.65 ^{bz}	17.81 ^{bz}
Ecuadorian	20.12 ^{bz}	18.07 ^{bz}
Peruvian	19.13 ^{bz}	17.45 ^{bz}
Crude fibre (%)		
Andino	20.47 ^{az}	18.45 ^{az}
Guaranguito	16.58 ^{az}	13.38 ^{by}
Ecuadorian	17.08 ^{az}	16.28 ^{az}
Peruvian	17.85 ^{az}	15.56 ^{az}
Fat (%)		
Andino	4.83 ^{az}	3.41 ^{ay}
Guaranguito	2.86 ^{bz}	2.66 ^{bz}
Ecuadorian	3.13 ^{az}	2.73 ^{bz}
Peruvian	2.87 ^{bz}	2.74 ^{bz}
Calcium (%)		
Andino	1.68 ^{az}	1.51 ^{az}
Guaranguito	0.54 ^{bz}	0.49 ^{cz}
Ecuadorian	0.21 ^{bz}	0.16 ^{dy}
Peruvian	0.96 ^{bz}	0.81 ^{bz}

The data represent average values of 12 tests. Different letters (a–d) in the same column indicate significant differences between cultivars, according to LSD test, at $p < 0.05$. Different letters (x–z) in the same row indicate significant differences between starter dosage within each cultivar, according to LSD test, at $p < 0.05$.