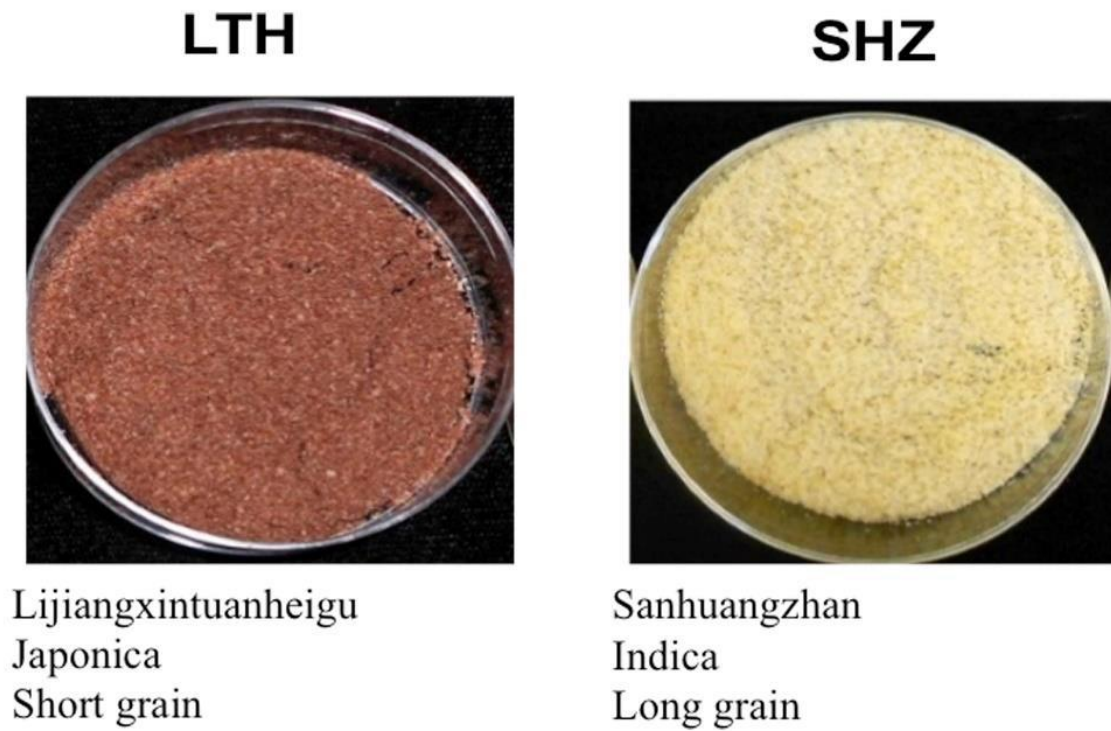
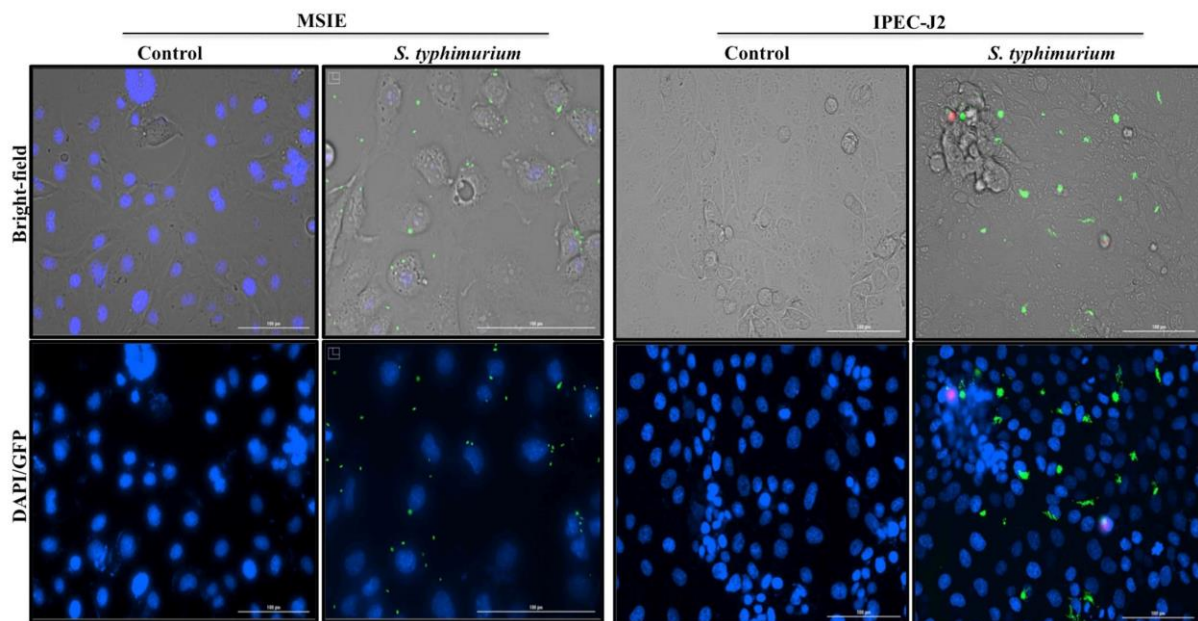


**Figure S1:** Characteristic features of LTH and SHZ-2 rice bran varieties.



**Figure S2:** *S. typhimurium* replication profile.



Invading *S. typhimurium* replicate better in IPEC-J2 cells compared to MSIE cells. Images are representatives of three separate fluorescence infection experiments comprising at least three randomly selected fields of view per infection.

**Table S1:** Median-scaled normalized relative abundance (RA) and fold differences between metabolites detected in galactolipid and phospholipid sub-metabolic pathways of lipid metabolism in LTH and SHZ-2.

Sub-metabolic pathway	Metabolite	RA (LTH)	RA (SHZ-2)	Fold difference
<b>Galactolipids</b>	1,2-dilinolenoyl-digalactosylglycerol (18:3/18:3)	0.728	0.143	5.11↑
	1,2-dilinolenoyl-galactosylglycerol (18:3/18:3)	1.125	0.231	4.86↑
	1,2-dilinoleoyl-digalactosylglycerol (18:2/18:2)	0.893	0.195	4.59↑
	1,2-dilinoleoyl-galactosylglycerol (18:2/18:2)	2.177	0.236	9.21↑
	1-linoleoyl-2-linolenoyl-digalactosylglycerol (18:2/18:3)	0.589	0.100	5.88↑
	1-linoleoyl-2-linolenoyl-galactosylglycerol (18:2/18:3)	0.714	0	∞
	1-oleoyl-2-linolenoyl-digalactosylglycerol (18:1/18:3)	0.270	0	∞
	1-oleoyl-2-linolenoyl-galactosylglycerol (18:1/18:3)	0.112	0	∞
	1-palmitoyl-2-linolenoyl-digalactosylglycerol (16:0/18:3)	0.369	0	∞
	1-palmitoyl-2-linoleoyl-digalactosylglycerol (16:0/18:2)	1.781	0.116	15.40↑
	1-palmitoyl-2-linoleoyl-galactosylglycerol (16:0/18:2)	0.386	0	∞
	Digalactosylglycerol	0.564	1.459	0.39↓
	Galactosylglycerol	0.100	0.476	0.211↓
	<b>Phospholipids</b>	1,2-dilinolenoyl-GPC (18:3/18:3)	1.174	0
1,2-dilinoleoyl-GPA (18:2/18:2)		11.783	1.443	8.17↑
1,2-dilinoleoyl-GPC (18:2/18:2)		51.806	3.043	17.02↑
1,2-dilinoleoyl-GPE (18:2/18:2)		9.207	0.444	20.72↑
1,2-dilinoleoyl-GPI (18:2/18:2)		3.161	0	∞
1,2-dioleoyl-GPA (18:1/18:1)		8.234	1.514	5.44↑
1,2-dioleoyl-GPC (18:1/18:1)		44.480	1.809	24.59↑
1,2-dioleoyl-GPE (18:1/18:1)		6.483	0.405	15.99↑
1,2-dioleoyl-GPI (18:1/18:1)		2.515	0.000	∞

1,2-dipalmitoyl-GPC (16:0/16:0)	2.201	0.197	11.18↑
1,2-dipalmitoyl-GPG (16:0/16:0)	0.633	0.062	10.18↑
1-linolenoyl-GPC (18:3)	0.784	0.477	1.64↑
1-linoleoyl-2-linolenoyl-GPA (18:2/18:3)	0.913	0	∞
1-linoleoyl-2-linolenoyl-GPC (18:2/18:3)	1.735	0	∞
1-linoleoyl-GPA (18:2)	0.330	0.077	4.27↑
1-linoleoyl-GPC (18:2)	1.971	1.243	1.59↑
1-linoleoyl-GPE (18:2)	7.451	4.472	1.67↑
1-linoleoyl-GPI (18:2)	0.244	0.271	0.90↓
1-linoleoyl-GPS (18:2)	0.040	0.097	0.41↓
1-oleoyl-2-linoleoyl-GPA (18:1/18:2)	14.319	2.365	6.06↑
1-oleoyl-2-linoleoyl-GPC (18:1/18:2)	62.828	1.904	33.00↑
1-oleoyl-2-linoleoyl-GPE (18:1/18:2)	11.434	0.708	16.15↑
1-oleoyl-2-linoleoyl-GPI (18:1/18:2)	4.592	0.267	17.17↑
1-oleoyl-GPC (18:1)	41.079	12.055	3.41↑
1-oleoyl-GPE (18:1)	5.615	1.431	3.92↑
1-oleoyl-GPI (18:1)	0.338	0.734	0.46↓
1-palmitoyl-2-alpha-linolenoyl-GPC (16:0/18:3n3)	3.423	0	∞
1-palmitoyl-2-linolenoyl-GPA (16:0/18:3)	0.621	0	∞
1-palmitoyl-2-linoleoyl-GPA (16:0/18:2)	1.687	0.226	7.46↑
1-palmitoyl-2-linoleoyl-GPC (16:0/18:2)	41.177	1.362	30.23↑
1-palmitoyl-2-linoleoyl-GPE (16:0/18:2)	12.346	0.711	17.37↑
1-palmitoyl-2-linoleoyl-GPI (16:0/18:2)	22.824	1.161	19.67↑
1-palmitoyl-2-oleoyl-GPA (16:0/18:1)	1.802	0.251	7.18↑
1-palmitoyl-2-oleoyl-GPC (16:0/18:1)	55.055	1.904	28.92↑
1-palmitoyl-2-oleoyl-GPE (16:0/18:1)	11.129	0.675	16.49↑
1-palmitoyl-2-oleoyl-GPG (16:0/18:1)	2.079	0.149	13.92↑
1-palmitoyl-2-oleoyl-GPI (16:0/18:1)	14.318	0.812	17.63↑
1-palmitoyl-2-palmitoleoyl-GPC (16:0/16:1)	7.353	0.084	87.72↑
1-palmitoyl-2-stearoyl-GPC	0.087	0	∞

	(16:0/18:0)			
	1-palmitoyl-GPA (16:0)	0.097	0	$\infty$
	1-palmitoyl-GPC (16:0)	57.510	30.171	1.91↑
	1-palmitoyl-GPE (16:0)	7.520	4.303	1.75↑
	1-palmitoyl-GPG (16:0)	0.500	0.214	2.33↑
	1-palmitoyl-GPI (16:0)	0.297	0.089	3.34↑
	1-stearoyl-2-oleoyl-GPC (18:0/18:1)	3.740	0.047	79.94↑
	1-stearoyl-2-oleoyl-GPE (18:0/18:1)	0.328	0	$\infty$
	1-stearoyl-GPC (18:0)	2.433	1.185	2.05↑
	1-stearoyl-GPE (18:0)	0.202	0.072	2.79↑
	Choline	484.710	369.091	1.31↑
	Choline phosphate	10.388	5.811	1.79↑
	Glycerol 3-phosphate	3.965	5.176	0.77↓
	Glycerophosphoethanolamine	0.382	3.087	0.12↓
	Glycerophosphoglycerol	0.977	5.521	0.18↓
	Glycerophosphoinositol	5.990	38.955	0.15↓
	Glycerophosphorylcholine (GPC)	464.267	810.241	0.57↓
	Oleoyl-linoleoyl-glycerol (18:1/18:2)	294.977	335.527	0.88↓
	[1]			
	Phosphoethanolamine	0.023	0.019	1.20↑

**Table S2:** Median-scaled normalized relative abundance (RA) and fold differences between metabolites detected in dipeptide sub-metabolic pathways in LTH and SHZ-2.

Sub-metabolic pathway	Metabolite	RA (LTH)	RA (SHZ-2)	Fold difference
<b>Dipeptides</b>	Alanylleucine	0.033031	0.262076	0.126↓
	Glycylleucine	0.096285	0.105265	0.915↓
	Isoleucylglycine	0.192726	0.357335	0.539↓
	Leucylalanine	0	0.189921	0.000↓
	Leucylglutamine	0	0.14603	0
	Leucylglycine	0.035421	0.180707	0.196↓
	Prolylglycine	0.105996	0.175542	0.604↓
	Threonylphenylalanine	0	0.031015	0
	Valylglutamine	0.100558	0.199516	0.504↓
	Valylglycine	0.154273	1.404759	0.110↓
	Valylleucine	0.109235	0.379144	0.288↓
	Alanylleucine	0.033031	0.262076	0.126↓
	Glycylleucine	0.096285	0.105265	0.915↓
	Isoleucylglycine	0.192726	0.357335	0.539↓
	Leucylalanine	0	0.189921	0.000↓
	Leucylglutamine	0	0.14603	0
	Leucylglycine	0.035421	0.180707	0.196↓
	Prolylglycine	0.105996	0.175542	0.604↓
	Threonylphenylalanine	0	0.031015	0
	Valylglutamine	0.100558	0.199516	0.504↓
Valylglycine	0.154273	1.404759	0.110↓	
Valylleucine	0.109235	0.379144	0.288↓	

**Table S3:** Median-scaled normalized relative abundance (RA) and fold differences between metabolites detected in flavonoids and phenylpropanoids sub-metabolic pathways of secondary metabolites metabolism in LTH and SHZ-2.

Sub-metabolic pathway	Metabolite	RA (LTH)	RA (SHZ-2)	Fold difference
<b>Flavonoids</b>	Apigenin	0.045742	1.48871	0.03↓
	Catechin	9.20817	0	∞
	Chrysoeriol	0.141691	0.842157	0.17↓
	Cyanidin glucoside	0.270684	0	∞
	Dihydroquercetin	0.48132	0	∞
<b>Phenylpropanoids</b>	4-hydroxycinnamate	0.426946	1.045444	0.41↓
	Caffeate	0.236717	0.370403	0.64↓
	Coniferyl aldehyde	0	0.093932	0
	Dihydroferulic acid	0.010336	0	∞
	Ferulate	1.01227	2.467364	0.41↓
	Gentisic acid-5-glucoside	0.200805	0.277294	0.72↓
	p-coumaroylserotonin	0.49594	0.011638	42.61↑
	Sinapate	0.208904	0.164966	1.27↑
	Syringic acid	0.039184	0.073759	0.53↓
	Vanillate	0.10272	0.285119	0.36↓
	Vanillin	0.075627	0	∞