

APPENDICES

APPENDIX A

STANDARD CURVES

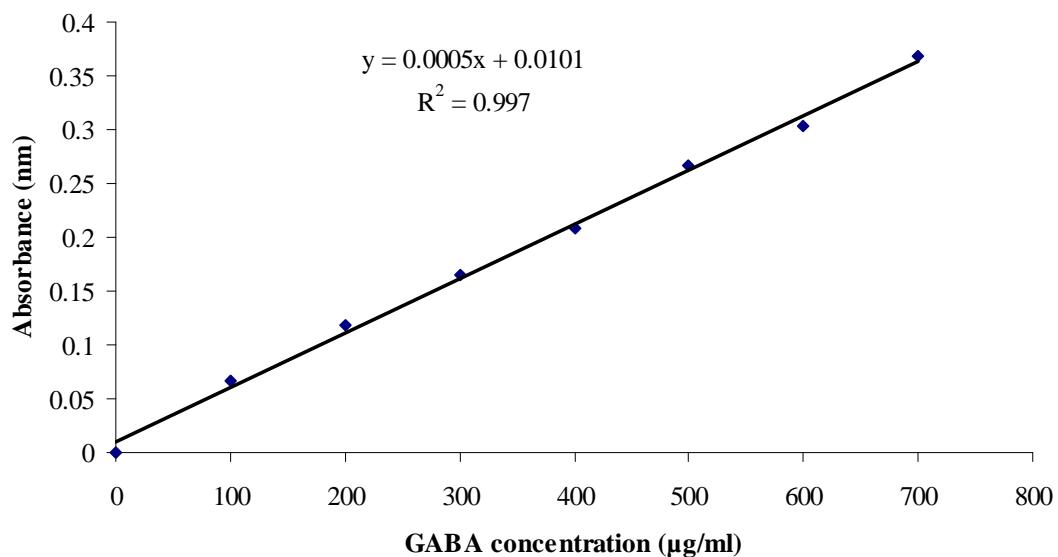


Figure A1 Standard curve for GABA (γ -aminobutyric acid) determination

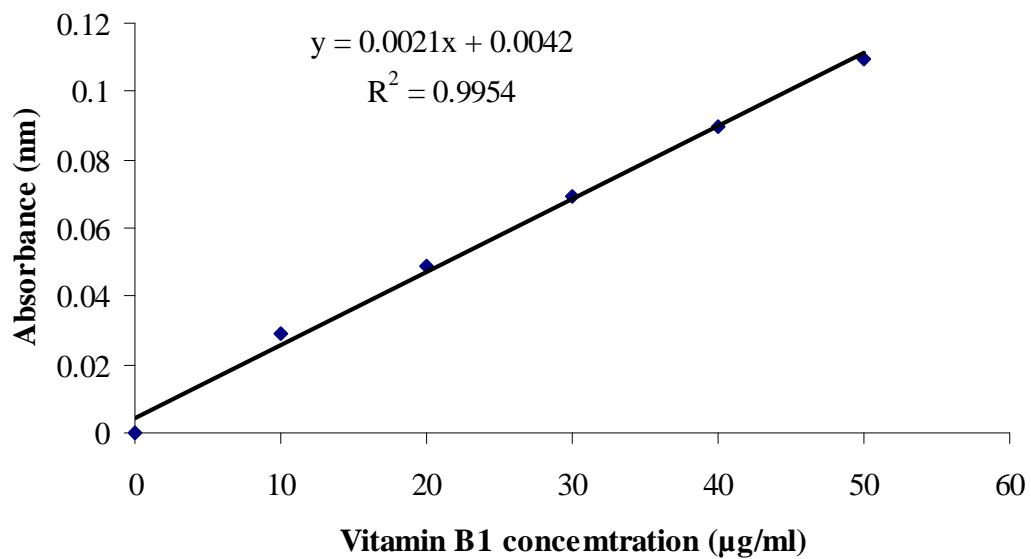
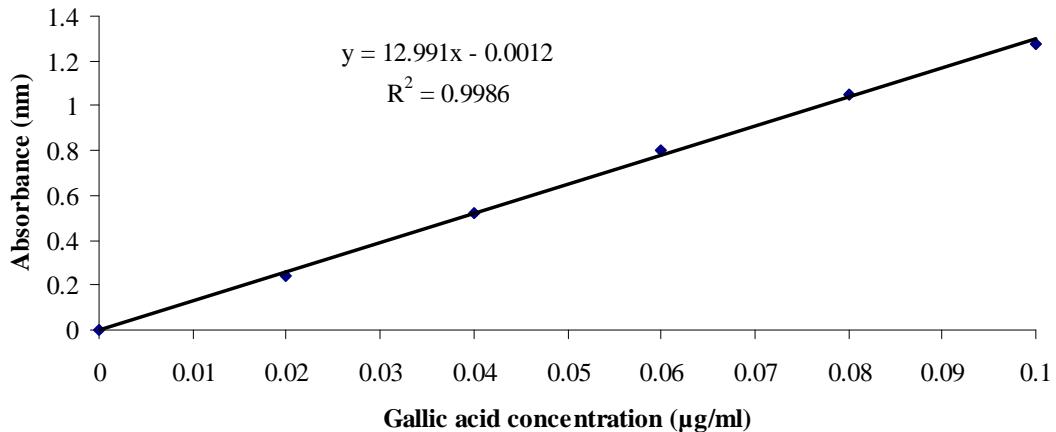
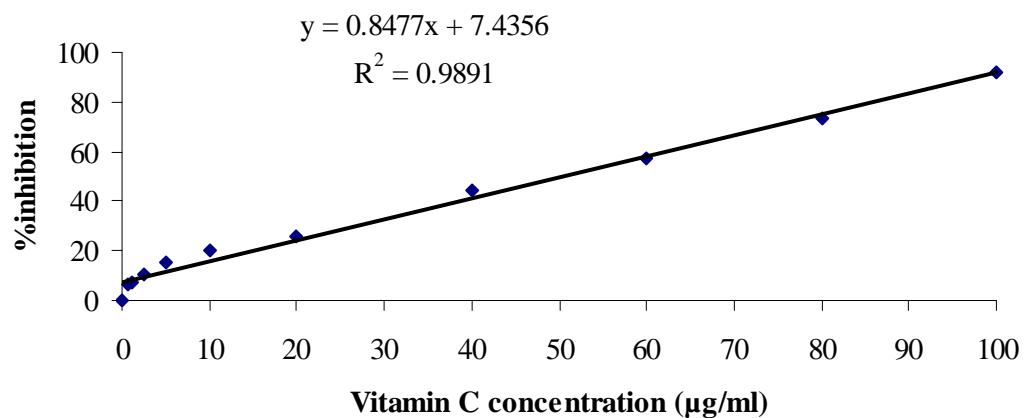
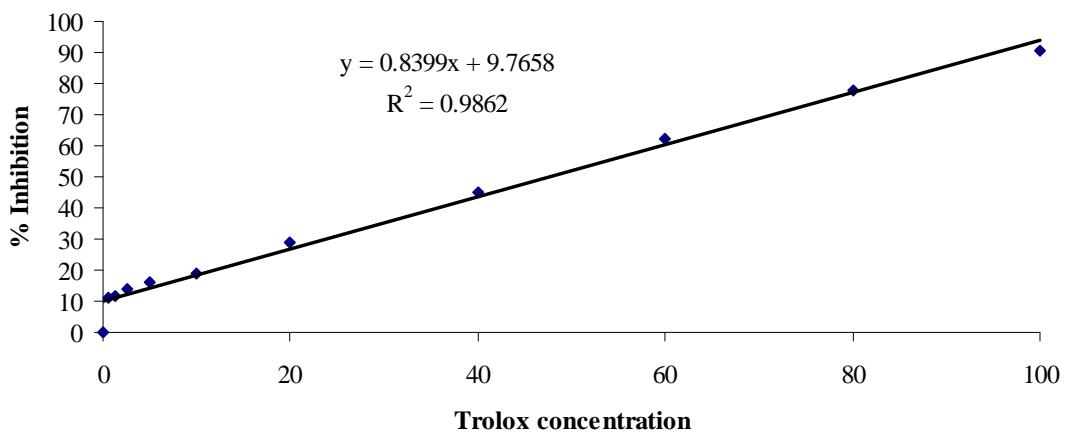


Figure A2 Standard curve for vitamin B1 determination

**Figure A3** Standard curve for total phenolic compounds determination**Figure A4** Standard curve for DPPH determination**Figure A5** Standard curve for ABTS determination

APPENDIX B

STATISTICAL ANALYSIS

Table B1 Analysis of variance of protein content of brown rice and germinated brown rice flour

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	square		
Corrected Model	6.053 ^a	5	1.211	31.813	0.000
Intercept	1056.563	1	1056.563	27763.708	0.000
Treatment	5.960	3	1.987	52.205	0.000
Replicate	0.093	2	0.047	1.225	0.358
Error	0.228	6	0.038		
Total	1062.845	12			
Corrected Total	6.282	11			

a. $R^2 = 0.964$ (Adjusted $R^2 = 0.933$)

Table B2 Analysis of variance of fat content of brown rice and germinated brown rice flour

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	square		
Corrected Model	0.604 ^a	5	0.121	7.634	0.014
Intercept	125.971	1	125.971	7960.265	0.000
Treatment	0.589	3	0.196	12.407	0.006
Replicate	0.015	2	0.008	0.476	0.643
Error	0.095	6	0.016		
Total	126.670	12			
Corrected Total	0.699	11			

a. $R^2 = 0.864$ (Adjusted $R^2 = 0.751$)

Table B3 Analysis of variance of crude fiber content of brown rice and germinated brown rice flour

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	square		
Corrected Model	2.145 ^a	5	0.429	228.773	0.000
Intercept	5.880	1	5.880	3136.000	0.000
Treatment	2.137	3	0.712	379.840	0.000
Replicate	0.008	2	0.004	2.173	0.195
Error	0.011	6	0.002		
Total	8.036	12			
Corrected Total	2.156	11			

a. $R^2 = 0.995$ (Adjusted $R^2 = 0.990$)**Table B4** Analysis of variance of ash content of brown rice and germinated brown rice flour

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	square		
Corrected Model	5.340 ^a	5	1.068	1779.989	0.000
Intercept	23.801	1	23.801	39668.056	0.000
Treatment	5.339	3	1.780	2966.167	0.000
Replicate	0.001	2	0.000	0.722	0.524
Error	0.004	6	0.001		
Total	29.144	12			
Corrected Total	5.344	11			

a. $R^2 = 0.999$ (Adjusted $R^2 = 0.999$)

Table B5 Analysis of variance of carbohydrates content of brown rice and germinated brown rice flour

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	square		
Corrected Model	3.209 ^a	5	0.642	8.235	0.012
Intercept	87248.264	1	87248.264	1119683.982	0.000
Treatment	3.090	3	1.030	13.217	0.005
Replicate	0.119	2	0.059	0.763	0.507
Error	0.468	6	0.078		
Total	87251.940	12			
Corrected Total	3.676	11			

a. $R^2 = 0.873$ (Adjusted $R^2 = 0.767$)**Table B6** Analysis of variance of GABA content of brown rice and germinated brown rice flour

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	square		
Corrected Model	919.183 ^a	21	43.771	60.439	0.000
Intercept	33446.870	1	33446.870	46183.928	0.000
Treatment	918.068	19	48.319	66.720	0.000
Replicate	1.115	2	0.557	0.770	0.470
Error	27.520	38	0.724		
Total	34393.573	60			
Corrected Total	946.703	59			

a. $R^2 = 0.971$ (Adjusted $R^2 = 0.955$)

Table B7 Analysis of variance of vitamin B1 content of brown rice and germinated brown rice flour

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	square		
Corrected Model	0.184 ^a	21	0.009	56.517	0.000
Intercept	20.074	1	20.074	129284.788	0.000
Treatment	0.184	19	0.010	62.341	0.000
Replicate	0.000	2	0.000	1.193	0.314
Error	0.006	38	0.000		
Total	20.264	60			
Corrected Total	0.190	59			

a. $R^2 = 0.969$ (Adjusted $R^2 = 0.952$)**Table B8** Analysis of variance of total phenolic content of brown rice and germinated brown rice flour

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	square		
Corrected Model	11.977 ^a	5	2.395	485.812	0.000
Intercept	1124.429	1	1124.429	228053.165	0.000
Treatment	11.976	3	3.992	809.663	0.000
Replicate	0.000	2	0.000	0.035	0.965
Error	0.030	6	0.005		
Total	1136.435	12			
Corrected Total	12.006	11			

a. $R^2 = 0.998$ (Adjusted $R^2 = 0.995$)

Table B9 Analysis of variance of DPPH value of brown rice and germinated brown rice flour

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	square		
Corrected Model	4.027 ^a	5	0.805	8.753	0.010
Intercept	141.453	1	141.453	1537.397	0.000
Treatment	3.994	3	1.331	14.470	0.004
Replicate	0.033	2	0.016	0.177	0.842
Error	0.552	6	0.092		
Total	146.032	12			
Corrected Total	4.579	11			

a. $R^2 = 0.879$ (Adjusted $R^2 = 0.779$)**Table B10** Analysis of variance of ABTS value of brown rice and germinated brown rice flour

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	square		
Corrected Model	151.997 ^a	5	30.399	74.223	0.000
Intercept	6866.954	1	6866.954	16766.388	0.000
Treatment	149.991	3	49.997	122.073	0.000
Replicate	2.005	2	1.003	2.448	0.167
Error	2.457	6	0.410		
Total	7021.408	12			
Corrected Total	154.454	11			

a. $R^2 = 0.984$ (Adjusted $R^2 = 0.971$)

Table B11 Analysis of variance of protein content of germinated brown rice flour and pregelatinized flour produced by single screw extruder

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	square		
Corrected Model	17.566 ^a	21	0.836	43.303	0.000
Intercept	5778.483	1	5778.483	299149.021	0.000
Treatment	17.531	19	0.923	47.767	0.000
Replicate	0.035	2	0.017	0.897	0.416
Error	0.734	38	0.019		
Total	5796.783	60			
Corrected Total	18.300	59			

a. $R^2 = 0.960$ (Adjusted $R^2 = 0.938$)**Table B12** Analysis of variance of GABA content of germinated brown rice flour and pregelatinized flour produced by single screw extruder

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	square		
Corrected Model	919.183 ^a	21	43.771	60.439	0.000
Intercept	33446.870	1	33446.870	46183.928	0.000
Treatment	918.068	19	48.319	66.720	0.000
Replicate	1.115	2	0.557	0.770	0.470
Error	27.520	38	0.724		
Total	34393.573	60			
Corrected Total	946.703	59			

a. $R^2 = 0.971$ (Adjusted $R^2 = 0.955$)

Table B13 Analysis of variance of vitamin b1 content of germinated brown rice flour and pregelatinized flour produced by single screw extruder

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	square		
Corrected Model	0.184 ^a	21	0.009	56.517	0.000
Intercept	20.074	1	20.074	129284.788	0.000
Treatment	0.184	19	0.010	62.341	0.000
Replicate	0.000	2	0.000	1.193	0.314
Error	0.006	38	0.000		
Total	20.264	60			
Corrected Total	0.190	59			

a. $R^2 = 0.969$ (Adjusted $R^2 = 0.952$)**Table B14** Analysis of variance of pasting temperature of germinated brown rice flour and pregelatinized flour produced by single screw extruder

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	square		
Corrected Model	6684.216 ^a	21	318.296	1108.063	0.000
Intercept	230528.413	1	230528.413	802523.564	0.000
Treatment	6684.035	19	351.791	1224.668	0.000
Replicate	0.181	2	0.091	0.315	0.732
Error	10.916	38	0.287		
Total	237223.545	60			
Corrected Total	6695.132	59			

a. $R^2 = 0.998$ (Adjusted $R^2 = 0.997$)

Table B15 Analysis of variance of peak viscosity of germinated brown rice flour and pregelatinized flour produced by single screw extruder

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	square		
Corrected Model	64167.393 ^a	21	3055.590	7679.142	0.000
Intercept	171724.653	1	171724.653	431569.026	0.000
Treatment	64166.479	19	3377.183	8487.352	0.000
Replicate	0.914	2	0.457	1.148	0.328
Error	15.120	38	0.398		
Total	235907.166	60			
Corrected Total	64182.513	59			

a. $R^2 = 1.000$ (Adjusted $R^2 = 1.000$)**Table B16** Analysis of variance of trough viscosity of germinated brown rice flour and pregelatinized flour produced by single screw extruder

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	square		
Corrected Model	53432.770 ^a	21	2544.418	7796.266	0.000
Intercept	84794.756	1	84794.756	259816.803	0.000
Treatment	53431.134	19	2812.165	8616.661	0.000
Replicate	1.636	2	0.818	2.506	0.095
Error	12.402	38	0.326		
Total	138239.927	60			
Corrected Total	53445.172	59			

a. $R^2 = 1.000$ (Adjusted $R^2 = 1.000$)

Table B17 Analysis of variance of breakdown viscosity of germinated brown rice flour and pregelatinized flour produced by single screw extruder

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	square		
Corrected Model	13303.199 ^a	21	633.486	2063.162	0.000
Intercept	15757.632	1	15757.632	51320.105	0.000
Treatment	13303.164	19	700.167	2280.331	0.000
Replicate	0.035	2	0.018	0.057	0.945
Error	11.668	38	0.307		
Total	29072.499	60			
Corrected Total	13314.867	59			

a. $R^2 = 0.999$ (Adjusted $R^2 = 0.999$)**Table B18** Analysis of variance of final viscosity of germinated brown rice flour and pregelatinized flour produced by single screw extruder

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	square		
Corrected Model	414323.506 ^a	21	19729.691	35877.150	0.000
Intercept	454397.539	1	454397.539	826292.164	0.000
Treatment	414318.905	19	21806.258	39653.252	0.000
Replicate	4.601	2	2.300	4.183	0.023
Error	20.897	38	0.550		
Total	868741.942	60			
Corrected Total	414344.403	59			

a. $R^2 = 1.000$ (Adjusted $R^2 = 1.000$)

Table B19 Analysis of variance of setback viscosity of germinated brown rice flour and pregelatinized flour produced by single screw extruder

Source	Type III	Degree	Mean	F	Sig.
	Sum of squares	of freedom			
	Squares	freedom			
Corrected Model	175574.532 ^a	21	8360.692	24901.566	0.000
Intercept	146213.236	1	146213.236	435482.920	0.000
Treatment	175573.050	19	9240.687	27522.551	0.000
Replicate	1.482	2	0.741	2.207	0.124
Error	12.758	38	0.336		
Total	321800.527	60			
Corrected Total	175587.291	59			

a. $R^2 = 1.000$ (Adjusted $R^2 = 1.000$)

Table B20 Analysis of variance of gelatinization onset temperature of germinated brown rice flour and pregelatinized flour produced by single screw extruder

Source	Type III	Degree	Mean	F	Sig.
	Sum of squares	of freedom			
	Squares	freedom			
Corrected Model	8476.504 ^a	21	403.643	2821.739	0.000
Intercept	153687.387	1	153687.387	1074379.110	0.000
Treatment	8476.422	19	446.127	3118.734	0.000
Replicate	0.082	2	0.041	0.285	0.754
Error	5.436	38	0.143		
Total	162169.327	60			
Corrected Total	8481.940	59			

a. $R^2 = 0.999$ (Adjusted $R^2 = 0.999$)

Table B21 Analysis of variance of gelatinization peak temperature of germinated brown rice flour and pregelatinized flour produced by single screw extruder

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	square		
Corrected Model	6666.330 ^a	21	317.444	827.609	0.000
Intercept	196675.506	1	196675.506	512752.431	0.000
Treatment	6666.046	19	350.845	914.686	0.000
Replicate	0.285	2	0.142	0.371	0.693
Error	14.576	38	0.384		
Total	203356.411	60			
Corrected Total	6680.906	59			

a. $R^2 = 0.998$ (Adjusted $R^2 = 0.997$)**Table B22** Analysis of variance of gelatinization conclusion temperature of germinated brown rice flour and pregelatinized flour produced by single screw extruder

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	square		
Corrected Model	5307.190 ^a	21	252.723	738.202	0.000
Intercept	280405.201	1	280405.201	819060.396	0.000
Treatment	5307.097	19	279.321	815.893	0.000
Replicate	0.093	2	0.046	.135	0.874
Error	13.009	38	0.342		
Total	285725.400	60			
Corrected Total	5320.199	59			

a. $R^2 = 0.998$ (Adjusted $R^2 = 0.996$)

Table B23 Analysis of variance of gelatinization enthalpy of germinated brown rice flour and pregelatinized flour produced by single screw extruder

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	square		
Corrected Model	9.452 ^a	21	.450	108.279	0.000
Intercept	80.563	1	80.563	19380.968	0.000
Treatment	9.452	19	0.497	119.670	0.000
Replicate	0.001	2	0.000	0.066	0.936
Error	0.158	38	0.004		
Total	90.174	60			
Corrected Total	9.610	59			

a. $R^2 = 0.984$ (Adjusted $R^2 = 0.974$)**Table B24** Analysis of variance of degree of gelatinization of germinated brown rice flour and pregelatinized flour produced by single screw extruder

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	square		
Corrected Model	17872.503 ^a	21	851.072	146.324	0.000
Intercept	88359.427	1	88359.427	15191.606	0.000
Treatment	17860.349	19	940.018	161.617	0.000
Replicate	12.153	2	6.077	1.045	0.362
Error	221.021	38	5.816		
Total	106452.950	60			
Corrected Total	18093.523	59			

a. $R^2 = 0.988$ (Adjusted $R^2 = 0.981$)

Table B25 Analysis of variance of retrogradation onset temperature of germinated brown rice flour and pregelatinized flour produced by single screw extruder

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	square		
Corrected Model	83.667 ^a	21	3.984	5.203	0.000
Intercept	114068.936	1	114068.936	148971.408	0.000
Treatment	72.238	19	3.802	4.965	0.000
Replicate	11.428	2	5.714	7.463	0.002
Error	29.097	38	0.766		
Total	114181.700	60			
Corrected Total	112.764	59			

a. $R^2 = 0.742$ (Adjusted $R^2 = 0.599$)**Table B26** Analysis of variance of retrogradation peak temperature of germinated brown rice flour and pregelatinized flour produced by single screw extruder

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	square		
Corrected Model	32.143 ^a	21	1.531	1.757	0.064
Intercept	171997.250	1	171997.250	197415.957	0.000
Treatment	31.637	19	1.665	1.911	0.044
Replicate	0.506	2	0.253	0.291	0.749
Error	33.107	38	0.871		
Total	172062.500	60			
Corrected Total	65.250	59			

a. $R^2 = 0.493$ (Adjusted $R^2 = 0.212$)

Table B27 Analysis of variance of retrogradation conclusion temperature of germinated brown rice flour and pregelatinized flour produced by single screw extruder

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	square		
Corrected Model	166.619 ^a	21	7.934	5.077	0.000
Intercept	248900.852	1	248900.852	159266.967	0.000
Treatment	159.737	19	8.407	5.380	0.000
Replicate	6.882	2	3.441	2.202	0.125
Error	59.386	38	1.563		
Total	249126.857	60			
Corrected Total	226.005	59			

a. $R^2 = 0.737$ (Adjusted $R^2 = 0.592$)

Table B28 Analysis of variance of retrogradation enthalpy of germinated brown rice flour and pregelatinized flour produced by single screw extruder

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	square		
Corrected Model	2.697 ^a	21	0.128	44.256	0.000
Intercept	37.936	1	37.936	13072.149	0.000
Treatment	2.687	19	0.141	48.739	0.000
Replicate	0.010	2	0.005	1.669	0.202
Error	0.110	38	0.003		
Total	40.744	60			
Corrected Total	2.807	59			

a. $R^2 = 0.961$ (Adjusted $R^2 = 0.939$)

Table B29 Analysis of variance of % retrogradation of germinated brown rice flour and pregelatinized flour produced by single screw extruder

Source	Type III	Degree			F	Sig.
	Sum of Squares	of freedom		Mean square		
Corrected Model	6886.601 ^a	21	327.933	14.475	0.000	
Intercept	303727.633	1	303727.633	13406.258	0.000	
Treatment	6858.774	19	360.988	15.934	0.000	
Replicate	27.826	2	13.913	0.614	0.546	
Error	860.915	38	22.656			
Total	311475.149	60				
Corrected Total	7747.516	59				

a. $R^2 = 0.889$ (Adjusted $R^2 = 0.827$)**Table B30** Analysis of variance of onset temperature of storage modulus of germinated brown rice flour and pregelatinized flour produced by single screw extruder

Source	Type III	Degree	Mean	F	Sig.		
	Sum of Squares	of square					
		freedom					
Corrected Model	8743.720 ^a	21	416.368	1.048E7	0.000		
Intercept	151460.538	1	151460.538	3.812E9	0.000		
Treatment	8743.720	19	460.196	1.158E7	0.000		
Replicate	2.333E-5	2	1.167E-5	0.294	0.747		
Error	0.002	38	3.974E-5				
Total	160204.260	60					
Corrected Total	8743.721	59					

a. $R^2 = 1.000$ (Adjusted $R^2 = 1.000$)

Table B31 Analysis of variance of temperature of maximum storage modulus of germinated brown rice flour and pregelatinized flour produced by single screw extruder

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	square		
Corrected Model	11563.758 ^a	21	550.655	1.322E7	0.000
Intercept	336727.942	1	336727.942	8.081E9	0.000
Treatment	11563.758	19	608.619	1.461E7	0.000
Replicate	8.333E-5	2	4.167E-5	1.000	0.377
Error	0.002	38	4.167E-5		
Total	348291.701	60			
Corrected Total	11563.759	59			

a. $R^2 = 1.000$ (Adjusted $R^2 = 1.000$)**Table B32** Analysis of variance of maximum storage modulus of germinated brown rice flour and pregelatinized flour produced by single screw extruder

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	square		
Corrected Model	7.472E6	21	355831.169	68164.255	0.000
Intercept	1.219E7	1	1.219E7	2335817.105	0.000
Treatment	7472431.331	19	393285.860	75339.206	0.000
Replicate	23.223	2	11.612	2.224	0.122
Error	198.368	38	5.220		
Total	1.967E7	60			
Corrected Total	7472652.922	59			

a. $R^2 = 1.000$ (Adjusted $R^2 = 1.000$)

Table B33 Analysis of variance of maximum loss modulus of germinated brown rice flour and pregelatinized flour produced by single screw extruder

Source	Type III	Degree			
	Sum of Squares	of freedom	Mean Square	F	Sig.
Corrected Model	328456.963 ^a	21	15640.808	3881.786	0.000
Intercept	759966.865	1	759966.865	188611.022	0.000
Treatment	328451.591	19	17286.926	4290.325	0.000
Replicate	5.372	2	2.686	0.667	0.519
Error	153.113	38	4.029		
Total	1088576.941	60			
Corrected Total	328610.076	59			

a. $R^2 = 1.000$ (Adjusted $R^2 = 0.999$)**Table B34** Analysis of variance of maximum tan δ of germinated brown rice flour and pregelatinized flour produced by single screw extruder

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Mean Square		
Corrected Model	0.422 ^a	21	0.020	592.133	0.000
Intercept	2.332	1	2.332	68708.762	0.000
Treatment	0.422	19	0.022	654.395	0.000
Replicate	4.333E-5	2	2.167E-5	0.638	0.534
Error	0.001	38	3.395E-5		
Total	2.756	60			
Corrected Total	0.423	59			

a. $R^2 = 0.997$ (Adjusted $R^2 = 0.995$)

Table B35 Analysis of variance of storage modulus at 5 °C of germinated brown rice flour and pregelatinized flour produced by single screw extruder

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	3.426E6	21	163121.532	12773.246	0.000
Intercept	2.255E7	1	2.255E7	1765610.880	0.000
Treatment	3425548.840	19	180292.044	14117.784	0.000
Replicate	3.337	2	1.669	0.131	0.878
Error	485.281	38	12.771		
Total	2.597E7	60			
Corrected Total	3426037.458	59			

a. $R^2 = 1.000$ (Adjusted $R^2 = 1.000$)**Table B36** Analysis of variance of loss modulus at 5 °C of germinated brown rice flour and pregelatinized flour produced by single screw extruder

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	119818.666 ^a	21	5705.651	2023.589	0.000
Intercept	550903.675	1	550903.675	195385.670	0.000
Treatment	119799.898	19	6305.258	2236.248	0.000
Replicate	18.769	2	9.384	3.328	0.047
Error	107.144	38	2.820		
Total	670829.485	60			
Corrected Total	119925.810	59			

a. $R^2 = 0.999$ (Adjusted $R^2 = 0.999$)

Table B37 Analysis of variance of tan δ at 5 °C of germinated brown rice flour and pregelatinized flour produced by single screw extruder

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	00.054 ^a	21	0.003	216.524	0.000
Intercept	1.438	1	1.438	120571.904	0.000
Treatment	0.054	19	0.003	239.257	0.000
Replicate	1.333E-5	2	6.667E-6	0.559	0.577
Error	0.000	38	1.193E-5		
Total	1.493	60			
Corrected Total	0.055	59			

a. $R^2 = 0.992$ (Adjusted $R^2 = 0.987$)**Table B38** Analysis of variance of swelling power at 50 °C of germinated brown rice flour and pregelatinized flour produced by single screw extruder

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	303.113 ^a	21	14.434	597.716	0.000
Intercept	1452.384	1	1452.384	60143.838	0.000
Treatment	303.107	19	15.953	660.621	0.000
Replicate	0.006	2	0.003	0.122	0.886
Error	0.918	38	0.024		
Total	1756.415	60			
Corrected Total	304.031	59			

a. $R^2 = 0.997$ (Adjusted $R^2 = 0.995$)

Table B39 Analysis of variance of swelling power at 60 °C of germinated brown rice flour and pregelatinized flour produced by single screw extruder

Source	Type III	Degree	Mean		
	Sum of Squares	of freedom	Square	F	Sig.
Corrected Model	307.402 ^a	21	14.638	319.911	0.000
Intercept	1549.908	1	1549.908	33872.518	0.000
Treatment	307.205	19	16.169	353.359	0.000
Replicate	0.197	2	0.099	2.155	0.130
Error	1.739	38	0.046		
Total	1859.049	60			
Corrected Total	309.141	59			

a. $R^2 = 0.994$ (Adjusted $R^2 = 0.991$)**Table B40** Analysis of variance of swelling power at 70 °C of germinated brown rice flour and pregelatinized flour produced by single screw extruder

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square	F	Sig.
Corrected Model	291.743 ^a	21	13.893	676.876	0.000
Intercept	1760.850	1	1760.850	85792.701	0.000
Treatment	291.591	19	15.347	747.736	0.000
Replicate	0.152	2	0.076	3.703	0.034
Error	0.780	38	0.021		
Total	2053.373	60			
Corrected Total	292.523	59			

a. $R^2 = 0.997$ (Adjusted $R^2 = 0.996$)

Table B41 Analysis of variance of swelling power at 80 °C of germinated brown rice flour and pregelatinized flour produced by single screw extruder

Source	Type III	Degree	Mean		
	Sum of Squares	of freedom	Square	F	Sig.
Corrected Model	276.112 ^a	21	13.148	183.618	0.000
Intercept	1975.708	1	1975.708	27591.222	0.000
Treatment	275.988	19	14.526	202.854	0.000
Replicate	0.125	2	0.062	0.870	0.427
Error	2.721	38	0.072		
Total	2254.542	60			
Corrected Total	278.833	59			

a. $R^2 = 0.990$ (Adjusted $R^2 = 0.985$)**Table B42** Analysis of variance of swelling power at 90 °C of germinated brown rice flour and pregelatinized flour produced by single screw extruder

Source	Type III	Degree	Mean		
	Sum of Squares	of freedom	Square	F	Sig.
Corrected Model	256.338 ^a	21	12.207	357.791	0.000
Intercept	2216.768	1	2216.768	64976.441	0.000
Treatment	256.285	19	13.489	395.372	0.000
Replicate	0.053	2	0.026	0.770	0.470
Error	1.296	38	0.034		
Total	2474.403	60			
Corrected Total	257.634	59			

a. $R^2 = 0.995$ (Adjusted $R^2 = 0.992$)

Table B43 Analysis of variance of solubility at 50 °C of germinated brown rice flour and pregelatinized flour produced by single screw extruder

Source	Type III	Degree	Mean		
	Sum of Squares	of freedom	Square	F	Sig.
Corrected Model	1123.591 ^a	21	53.504	688.486	0.000
Intercept	3785.157	1	3785.157	48706.829	0.000
Treatment	1123.586	19	59.136	760.954	0.000
Replicate	0.005	2	0.003	0.034	0.966
Error	2.953	38	0.078		
Total	4911.701	60			
Corrected Total	1126.544	59			

a. $R^2 = 0.997$ (Adjusted $R^2 = 0.996$)**Table B44** Analysis of variance of solubility at 60 °C of germinated brown rice flour and pregelatinized flour produced by single screw extruder

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	1791.410 ^a	21	85.305	513.123	0.000
Intercept	6228.128	1	6228.128	37463.038	0.000
Treatment	1791.363	19	94.282	567.121	0.000
Replicate	0.047	2	0.024	0.142	0.868
Error	6.317	38	0.166		
Total	8025.855	60			
Corrected Total	1797.727	59			

a. $R^2 = 0.996$ (Adjusted $R^2 = 0.995$)

Table B45 Analysis of variance of solubility at 70 °C of germinated brown rice flour and pregelatinized flour produced by single screw extruder

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	2588.358 ^a	21	123.255	950.394	0.000
Intercept	8493.030	1	8493.030	65487.962	0.000
Treatment	2588.161	19	136.219	1050.356	0.000
Replicate	0.197	2	0.098	0.759	0.475
Error	4.928	38	0.130		
Total	11086.316	60			
Corrected Total	2593.286	59			

a. $R^2 = 0.998$ (Adjusted $R^2 = 0.997$)**Table B46** Analysis of variance of solubility at 80 °C of germinated brown rice flour and pregelatinized flour produced by single screw extruder

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	3386.923 ^a	21	161.282	1749.902	0.000
Intercept	11524.036	1	11524.036	125035.221	0.000
Treatment	3386.561	19	178.240	1933.896	0.000
Replicate	0.362	2	0.181	1.962	0.155
Error	3.502	38	0.092		
Total	14914.461	60			
Corrected Total	3390.425	59			

a. $R^2 = 0.999$ (Adjusted $R^2 = 0.998$)

Table B47 Analysis of variance of solubility at 90 °C of germinated brown rice flour and pregelatinized flour produced by single screw extruder

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	6608.713 ^a	21	314.701	2183.175	0.000
Intercept	18989.402	1	18989.402	131735.307	0.000
Treatment	6607.963	19	347.788	2412.709	0.000
Replicate	0.750	2	0.375	2.601	0.087
Error	5.478	38	0.144		
Total	25603.593	60			
Corrected Total	6614.191	59			

a. $R^2 = 0.999$ (Adjusted $R^2 = 0.999$)**Table B48** Analysis of variance of protein content of germinated brown rice flour and pregelatinized flour produced by spray dryer

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	5.047 ^a	7	0.721	75.019	0.000
Intercept	1731.661	1	1731.661	180193.678	0.000
Treatment	5.012	5	1.002	104.313	0.000
Replicate	0.034	2	0.017	1.785	0.217
Error	0.096	10	0.010		
Total	1736.804	18			
Corrected Total	5.143	17			

a. $R^2 = 0.981$ (Adjusted $R^2 = 0.968$)

Table B49 Analysis of variance of GABA content of germinated brown rice flour and pregelatinized flour produced by spray dryer

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	276.415 ^a	7	39.488	640.239	0.000
Intercept	9861.697	1	9861.697	159893.479	0.000
Treatment	275.824	5	55.165	894.419	0.000
Replicate	0.591	2	0.295	4.790	0.035
Error	0.617	10	0.062		
Total	10138.728	18			
Corrected Total	277.032	17			

a. $R^2 = 0.998$ (Adjusted $R^2 = 0.996$)**Table B50** Analysis of variance of vitamin B1 content of germinated brown rice flour and pregelatinized flour produced by spray dryer

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	0.008 ^a	7	0.001	25.364	0.000
Intercept	6.839	1	6.839	152428.045	0.000
Treatment	0.008	5	0.002	33.847	0.000
Replicate	0.000	2	0.000	4.156	0.049
Error	0.000	10	4.487E-5		
Total	6.848	18			
Corrected Total	0.008	17			

a. $R^2 = 0.947$ (Adjusted $R^2 = 0.909$)

Table B51 Analysis of variance of pasting temperature of germinated brown rice flour and pregelatinized flour produced by spray dryer

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	1208.416 ^a	7	172.631	1372.204	0.000
Intercept	85463.561	1	85463.561	679330.576	0.000
Treatment	1207.764	5	241.553	1920.049	0.000
Replicate	0.652	2	0.326	2.591	0.124
Error	1.258	10	0.126		
Total	86673.235	18			
Corrected Total	1209.674	17			

a. $R^2 = 0.999$ (Adjusted $R^2 = 0.998$)**Table B52** Analysis of variance of peak viscosity of germinated brown rice flour and pregelatinized flour produced by spray dryer

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	6789.578 ^a	7	969.940	2391.265	0.000
Intercept	273061.313	1	273061.313	673198.451	0.000
Treatment	6786.985	5	1357.397	3346.492	0.000
Replicate	2.593	2	1.296	3.196	0.084
Error	4.056	10	0.406		
Total	279854.947	18			
Corrected Total	6793.634	17			

a. $R^2 = 0.999$ (Adjusted $R^2 = 0.999$)

Table B53 Analysis of variance of trough viscosity of germinated brown rice flour and pregelatinized flour produced by spray dryer

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	9549.783 ^a	7	1364.255	5261.850	0.000
Intercept	180647.942	1	180647.942	696748.456	0.000
Treatment	9548.328	5	1909.666	7365.468	0.000
Replicate	1.454	2	0.727	2.804	0.108
Error	2.593	10	0.259		
Total	190200.317	18			
Corrected Total	9552.375	17			

a. $R^2 = 1.000$ (Adjusted $R^2 = 1.000$)**Table B54** Analysis of variance of breakdown viscosity of germinated brown rice flour and pregelatinized flour produced by spray dryer

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	806.041 ^a	7	115.149	304.628	0.000
Intercept	9557.301	1	9557.301	25284.004	0.000
Treatment	804.846	5	160.969	425.847	0.000
Replicate	1.195	2	0.598	1.581	0.253
Error	3.780	10	0.378		
Total	10367.122	18			
Corrected Total	809.821	17			

a. $R^2 = 0.995$ (Adjusted $R^2 = 0.992$)

Table B55 Analysis of variance of final viscosity of germinated brown rice flour and pregelatinized flour produced by spray dryer

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	113695.850 ^a	7	16242.264	29222.763	0.000
Intercept	1394206.914	1	1394206.914	2508429.715	0.000
Treatment	113695.058	5	22739.012	40911.583	0.000
Replicate	0.792	2	0.396	0.713	0.514
Error	5.558	10	0.556		
Total	1507908.323	18			
Corrected Total	113701.408	17			

a. $R^2 = 1.000$ (Adjusted $R^2 = 1.000$)**Table B56** Analysis of variance of setback viscosity of germinated brown rice flour and pregelatinized flour produced by spray dryer

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	61573.549 ^a	7	8796.221	16317.962	0.000
Intercept	571500.448	1	571500.448	1060196.462	0.000
Treatment	61573.098	5	12314.620	22844.980	0.000
Replicate	0.451	2	0.225	0.418	0.669
Error	5.391	10	0.539		
Total	633079.387	18			
Corrected Total	61578.939	17			

a. $R^2 = 1.000$ (Adjusted $R^2 = 1.000$)

Table B57 Analysis of variance of gelatinization onset temperature of germinated brown rice flour and pregelatinized flour produced by spray dryer

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	348.312 ^a	7	49.759	1052.800	0.000
Intercept	87061.299	1	87061.299	1842047.377	0.000
Treatment	348.234	5	69.647	1473.589	0.000
Replicate	0.078	2	0.039	0.828	0.465
Error	0.473	10	0.047		
Total	87410.084	18			
Corrected Total	348.785	17			

a. $R^2 = 0.999$ (Adjusted $R^2 = 0.998$)**Table B58** Analysis of variance of gelatinization peak temperature of germinated brown rice flour and pregelatinized flour produced by spray dryer

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	241.994 ^a	7	34.571	692.721	0.000
Intercept	98846.436	1	98846.436	1980669.993	0.000
Treatment	241.582	5	48.316	968.158	0.000
Replicate	0.412	2	0.206	4.129	0.049
Error	0.499	10	0.050		
Total	99088.930	18			
Corrected Total	242.493	17			

a. $R^2 = 0.998$ (Adjusted $R^2 = 0.997$)

Table B59 Analysis of variance of gelatinization conclusion temperature of germinated brown rice flour and pregelatinized flour produced by spray dryer

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	64.954 ^a	7	9.279	15.718	0.000
Intercept	127377.869	1	127377.869	215768.320	0.000
Treatment	63.479	5	12.696	21.506	0.000
Replicate	1.476	2	0.738	1.250	0.328
Error	5.903	10	0.590		
Total	127448.727	18			
Corrected Total	70.858	17			

a. $R^2 = 0.917$ (Adjusted $R^2 = 0.858$)**Table B60** Analysis of variance of gelatinization enthalpy of germinated brown rice flour and pregelatinized flour produced by spray dryer

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	2.038 ^a	7	.291	45.951	0.000
Intercept	61.250	1	61.250	9668.405	0.000
Treatment	2.025	5	0.405	63.917	0.000
Replicate	0.013	2	0.007	1.037	0.390
Error	0.063	10	0.006		
Total	63.351	18			
Corrected Total	2.101	17			

a. $R^2 = 0.970$ (Adjusted $R^2 = 0.949$)

Table B61 Analysis of variance of degree of gelatinization of germinated brown rice flour and pregelatinized flour produced by spray dryer

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	46.991 ^a	7	6.713	2.246	0.119
Intercept	53.546	1	53.546	17.913	0.002
Treatment	32.670	5	6.534	2.186	0.137
Replicate	14.321	2	7.161	2.396	0.141
Error	29.892	10	2.989		
Total	130.429	18			
Corrected Total	76.883	17			

a. $R^2 = 0.611$ (Adjusted $R^2 = 0.339$)**Table B62** Analysis of variance of retrogradation onset temperature of germinated brown rice flour and pregelatinized flour produced by spray dryer

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	4.409 ^a	7	.630	1.946	0.164
Intercept	37441.249	1	37441.249	115654.997	0.000
Treatment	2.296	5	0.459	1.419	0.298
Replicate	2.113	2	1.057	3.264	0.081
Error	3.237	10	0.324		
Total	37448.896	18			
Corrected Total	7.647	17			

a. $R^2 = 0.577$ (Adjusted $R^2 = 0.280$)

Table B63 Analysis of variance of retrogradation peak temperature of germinated brown rice flour and pregelatinized flour produced by spray dryer

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Sum of Squares	of freedom	
Corrected Model	11.005 ^a	7	1.572	1.674	0.222
Intercept	54100.762	1	54100.762	57590.966	0.000
Treatment	9.841	5	1.968	2.095	0.150
Replicate	1.164	2	0.582	0.620	0.558
Error	9.394	10	0.939		
Total	54121.161	18			
Corrected Total	20.399	17			

a. $R^2 = 0.539$ (Adjusted $R^2 = 0.217$)**Table B64** Analysis of variance of retrogradation conclusion temperature of germinated brown rice flour and pregelatinized flour produced by spray dryer

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Sum of Squares	of freedom	
Corrected Model	18.299 ^a	7	2.614	1.843	0.184
Intercept	73838.121	1	73838.121	52050.401	0.000
Treatment	11.746	5	2.349	1.656	0.232
Replicate	6.554	2	3.277	2.310	0.150
Error	14.186	10	1.419		
Total	73870.606	18			
Corrected Total	32.485	17			

a. $R^2 = 0.563$ (Adjusted $R^2 = 0.258$)

Table B65 Analysis of variance of % retrogradation of germinated brown rice flour and pregelatinized flour produced by spray dryer

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	118.633 ^a	7	16.948	0.292	0.942
Intercept	45109.758	1	45109.758	776.466	0.000
Treatment	77.056	5	15.411	0.265	0.922
Replicate	41.578	2	20.789	0.358	0.708
Error	580.962	10	58.096		
Total	45809.353	18			
Corrected Total	699.595	17			

a. $R^2 = 0.170$ (Adjusted $R^2 = 0.412$)**Table B66** Analysis of variance of onset temperature of storage modulus of germinated brown rice flour and pregelatinized flour produced by spray dryer

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	420.887 ^a	7	60.127	832524.505	0.000
Intercept	91460.794	1	91460.794	1.266E9	0.000
Treatment	420.887	5	84.177	1165533.169	0.000
Replicate	0.000	2	0.000	2.846	0.105
Error	0.001	10	7.222E-5		
Total	91881.682	18			
Corrected Total	420.888	17			

a. $R^2 = 1.000$ (Adjusted $R^2 = 1.000$)

Table B67 Analysis of variance of temperature of maximum storage modulus of germinated brown rice flour and pregelatinized flour produced by spray dryer

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	199.053 ^a	7	28.436	544522.720	0.000
Intercept	113318.149	1	113318.149	2.170E9	0.000
Treatment	199.053	5	39.811	762331.511	0.000
Replicate	7.778E-5	2	3.889E-5	0.745	0.499
Error	0.001	10	5.222E-5		
Total	113517.202	18			
Corrected Total	199.054	17			

a. $R^2 = 1.000$ (Adjusted $R^2 = 1.000$)**Table B68** Analysis of variance of maximum storage modulus of germinated brown rice flour and pregelatinized flour produced by spray dryer

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	986704.033 ^a	7	140957.719	61792.845	0.000
Intercept	3.405E7	1	3.405E7	1.493E7	0.000
Treatment	986702.013	5	197340.403	86509.806	0.000
Replicate	2.020	2	1.010	0.443	0.654
Error	22.811	10	2.281		
Total	3.504E7	18			
Corrected Total	986726.845	17			

a. $R^2 = 1.000$ (Adjusted $R^2 = 1.000$)

Table B69 Analysis of variance of maximum loss modulus of germinated brown rice flour and pregelatinized flour produced by spray dryer

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	91063.559 ^a	7	13009.080	2727.922	0.000
Intercept	1170511.201	1	1170511.201	245448.850	0.000
Treatment	91028.195	5	18205.639	3817.608	0.000
Replicate	35.364	2	17.682	3.708	0.062
Error	47.689	10	4.769		
Total	1261622.449	18			
Corrected Total	91111.248	17			

a. $R^2 = 0.999$ (Adjusted $R^2 = 0.999$)**Table B70** Analysis of variance of maximum tan δ of germinated brown rice flour and pregelatinized flour produced by spray dryer

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	0.005 ^a	7	0.001	126.143	0.000
Intercept	0.247	1	0.247	44521.000	0.000
Treatment	0.005	5	0.001	176.200	0.000
Replicate	1.111E-5	2	5.556E-6	1.000	0.402
Error	5.556E-5	10	5.556E-6		
Total	0.252	18			
Corrected Total	0.005	17			

a. $R^2 = 0.989$ (Adjusted $R^2 = 0.981$)

Table B71 Analysis of variance of storage modulus at 5 °C of germinated brown rice flour and pregelatinized flour produced by spray dryer

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Sum of Square		
Corrected Model	1.750E6	7	249973.157	12838.239	0.000
Intercept	1.926E7	1	1.926E7	989003.164	0.000
Treatment	1749797.169	5	349959.434	17973.381	0.000
Replicate	14.928	2	7.464	0.383	0.691
Error	194.710	10	19.471		
Total	2.101E7	18			
Corrected Total	1750006.806	17			

a. $R^2 = 1.000$ (Adjusted $R^2 = 1.000$)**Table B72** Analysis of variance of loss modulus at 5 °C of germinated brown rice flour and pregelatinized flour produced by spray dryer

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Sum of Square		
Corrected Model	55301.866 ^a	7	7900.267	1144.058	0.000
Intercept	464837.606	1	464837.606	67314.319	0.000
Treatment	55287.809	5	11057.562	1601.274	0.000
Replicate	14.057	2	7.029	1.018	0.396
Error	69.055	10	6.905		
Total	520208.527	18			
Corrected Total	55370.921	17			

a. $R^2 = 0.999$ (Adjusted $R^2 = 0.998$)

Table B73 Analysis of variance of tan δ at 5 °C of germinated brown rice flour and pregelatinized flour produced by spray dryer

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	0.003 ^a	7	0.000	.	.
Intercept	0.423	1	0.423	.	.
Treatment	0.003	5	0.001	.	.
Replicate	0.000	2	0.000	.	.
Error	0.000	10	0.000	.	.
Total	0.426	18			
Corrected Total	0.003	17			

a. $R^2 = 1.000$ (Adjusted $R^2 = 1.000$)**Table B74** Analysis of variance of swelling power at 50 °C of germinated brown rice flour and pregelatinized flour produced by spray dryer

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	0.320 ^a	7	0.046	6.509	0.004
Intercept	49.534	1	49.534	7053.953	0.000
Treatment	0.310	5	0.062	8.838	0.002
Replicate	0.010	2	0.005	0.687	0.525
Error	0.070	10	0.007		
Total	49.925	18			
Corrected Total	0.390	17			

a. $R^2 = 0.820$ (Adjusted $R^2 = 0.694$)

Table B75 Analysis of variance of swelling power at 60 °C of germinated brown rice flour and pregelatinized flour produced by spray dryer

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	0.485 ^a	7	0.069	7.618	0.002
Intercept	54.810	1	54.810	6025.333	0.000
Treatment	0.460	5	0.092	10.106	0.001
Replicate	0.025	2	0.013	1.398	0.292
Error	0.091	10	0.009		
Total	55.387	18			
Corrected Total	0.576	17			

a. $R^2 = 0.842$ (Adjusted $R^2 = 0.732$)**Table B76** Analysis of variance of swelling power at 70 °C of germinated brown rice flour and pregelatinized flour produced by spray dryer

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	0.465 ^a	7	0.066	2.307	0.112
Intercept	70.053	1	70.053	2431.938	0.000
Treatment	0.346	5	0.069	2.404	0.111
Replicate	0.119	2	0.059	2.063	0.178
Error	0.288	10	0.029		
Total	70.807	18			
Corrected Total	0.753	17			

a. $R^2 = 0.618$ (Adjusted $R^2 = 0.350$)

Table B77 Analysis of variance of swelling power at 80 °C of germinated brown rice flour and pregelatinized flour produced by spray dryer

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	0.672 ^a	7	0.096	1.544	0.257
Intercept	107.458	1	107.458	1727.895	0.000
Treatment	0.612	5	0.122	1.968	0.170
Replicate	0.060	2	0.030	0.486	0.629
Error	0.622	10	0.062		
Total	108.752	18			
Corrected Total	1.294	17			

a. $R^2 = 0.519$ (Adjusted $R^2 = 0.183$)**Table B78** Analysis of variance of swelling power at 90 °C of germinated brown rice flour and pregelatinized flour produced by spray dryer

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	0.510 ^a	7	0.073	5.338	0.009
Intercept	131.923	1	131.923	9658.395	0.000
Treatment	0.509	5	0.102	7.451	0.004
Replicate	0.001	2	0.001	0.054	0.948
Error	0.137	10	0.014		
Total	132.570	18			
Corrected Total	0.647	17			

a. $R^2 = 0.789$ (Adjusted $R^2 = 0.641$)

Table B79 Analysis of variance of solubility at 50 °C of germinated brown rice flour and pregelatinized flour produced by spray dryer

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	11.604 ^a	7	1.658	41.011	0.000
Intercept	254.552	1	254.552	6297.328	0.000
Treatment	11.577	5	2.315	57.281	0.000
Replicate	0.027	2	0.014	0.337	0.722
Error	0.404	10	0.040		
Total	266.560	18			
Corrected Total	12.008	17			

a. R² = 0.966 (Adjusted R² = 0.943)**Table B80** Analysis of variance of solubility at 60 °C of germinated brown rice flour and pregelatinized flour produced by spray dryer

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	13.506 ^a	7	1.929	16.975	0.000
Intercept	381.893	1	381.893	3359.792	0.000
Treatment	13.318	5	2.664	23.434	0.000
Replicate	.188	2	0.094	0.826	0.465
Error	1.137	10	0.114		
Total	396.535	18			
Corrected Total	14.643	17			

a. R² = 0.922 (Adjusted R² = 0.868)

Table B81 Analysis of variance of solubility at 70 °C of germinated brown rice flour and pregelatinized flour produced by spray dryer

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	14.997 ^a	7	2.142	12.074	0.000
Intercept	563.361	1	563.361	3175.015	0.000
Treatment	14.586	5	2.917	16.441	0.000
Replicate	0.411	2	0.205	1.158	0.353
Error	1.774	10	0.177		
Total	580.132	18			
Corrected Total	16.771	17			

a. $R^2 = 0.894$ (Adjusted $R^2 = 0.820$)**Table B82** Analysis of variance of solubility at 80 °C of germinated brown rice flour and pregelatinized flour produced by spray dryer

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	20.805 ^a	7	2.972	26.490	0.000
Intercept	724.789	1	724.789	6460.054	0.000
Treatment	20.620	5	4.124	36.757	0.000
Replicate	0.185	2	0.092	0.824	0.466
Error	1.122	10	0.112		
Total	746.716	18			
Corrected Total	21.927	17			

a. $R^2 = 0.949$ (Adjusted $R^2 = 0.913$)

Table B83 Analysis of variance of solubility at 90 °C of germinated brown rice flour and pregelatinized flour produced by spray dryer

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	37.857 ^a	7	5.408	375.478	0.000
Intercept	1046.989	1	1046.989	72690.729	0.000
Treatment	37.634	5	7.527	522.567	0.000
Replicate	0.223	2	0.112	7.756	0.009
Error	0.144	10	0.014		
Total	1084.990	18			
Corrected Total	38.001	17			

a. $R^2 = 0.996$ (Adjusted $R^2 = 0.994$)**Table B84** Analysis of variance of protein content of germinated brown rice flour and pregelatinized flour produced by spouted bed dryer

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	5.249 ^a	7	.750	30.836	0.000
Intercept	1729.308	1	1729.308	71116.164	0.000
Treatment	5.177	5	1.035	42.578	0.000
Replicate	0.072	2	0.036	1.483	0.273
Error	0.243	10	0.024		
Total	1734.800	18			
Corrected Total	5.492	17			

a. $R^2 = 0.956$ (Adjusted $R^2 = 0.925$)

Table B85 Analysis of variance of GABA content of germinated brown rice flour and pregelatinized flour produced by spouted bed dryer

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	277.971 ^a	7	39.710	335.601	0.000
Intercept	9883.711	1	9883.711	83529.811	0.000
Treatment	277.946	5	55.589	469.799	0.000
Replicate	0.025	2	0.012	0.104	0.902
Error	1.183	10	0.118		
Total	10162.866	18			
Corrected Total	279.154	17			

a. $R^2 = 0.996$ (Adjusted $R^2 = 0.993$)**Table B86** Analysis of variance of vitamin B1 content of germinated brown rice flour and pregelatinized flour produced by spouted bed dryer

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	0.007 ^a	7	0.001	23.753	0.000
Intercept	6.846	1	6.846	155915.383	0.000
Treatment	0.007	5	0.001	32.584	0.000
Replicate	0.000	2	7.356E-5	1.675	0.236
Error	0.000	10	4.391E-5		
Total	6.854	18			
Corrected Total	0.008	17			

a. $R^2 = 0.943$ (Adjusted $R^2 = 0.904$)

Table B87 Analysis of variance of pasting temperature of germinated brown rice flour and pregelatinized flour produced by spouted bed dryer

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	1143.293 ^a	7	163.328	940.165	0.000
Intercept	87647.867	1	87647.867	504528.814	0.000
Treatment	1143.279	5	228.656	1316.215	0.000
Replicate	0.014	2	0.007	0.042	0.959
Error	1.737	10	0.174		
Total	88792.897	18			
Corrected Total	1145.031	17			

a. $R^2 = 0.998$ (Adjusted $R^2 = 0.997$)**Table B88** Analysis of variance of peak viscosity of germinated brown rice flour and pregelatinized flour produced by spouted bed dryer

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	6181.241 ^a	7	883.034	4601.751	0.000
Intercept	276912.677	1	276912.677	1443073.124	0.000
Treatment	6179.575	5	1235.915	6440.715	0.000
Replicate	1.666	2	0.833	4.341	0.044
Error	1.919	10	0.192		
Total	283095.837	18			
Corrected Total	6183.160	17			

a. $R^2 = 1.000$ (Adjusted $R^2 = 0.999$)

Table B89 Analysis of variance of trough viscosity of germinated brown rice flour and pregelatinized flour produced by spouted bed dryer

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	11070.589 ^a	7	1581.513	5479.124	0.000
Intercept	195543.818	1	195543.818	677458.288	0.000
Treatment	11069.487	5	2213.897	7670.010	0.000
Replicate	1.102	2	0.551	1.909	0.199
Error	2.886	10	0.289		
Total	206617.294	18			
Corrected Total	11073.475	17			

a. $R^2 = 1.000$ (Adjusted $R^2 = 1.000$)**Table B90** Analysis of variance of breakdown viscosity of germinated brown rice flour and pregelatinized flour produced by spouted bed dryer

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	860.245 ^a	7	122.892	326.625	0.000
Intercept	7099.950	1	7099.950	18870.355	0.000
Treatment	859.968	5	171.994	457.127	0.000
Replicate	0.278	2	0.139	0.369	0.700
Error	3.762	10	0.376		
Total	7963.958	18			
Corrected Total	864.008	17			

a. $R^2 = 0.996$ (Adjusted $R^2 = 0.993$)

Table B91 Analysis of variance of final viscosity of germinated brown rice flour and pregelatinized flour produced by spouted bed dryer

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	121822.114 ^a	7	17403.159	53554.956	0.000
Intercept	1602437.857	1	1602437.857	4931201.797	0.000
Treatment	121822.034	5	24364.407	74976.890	0.000
Replicate	0.080	2	0.040	0.123	0.886
Error	3.250	10	0.325		
Total	1724263.220	18			
Corrected Total	121825.363	17			

a. $R^2 = 1.000$ (Adjusted $R^2 = 1.000$)**Table B92** Analysis of variance of setback viscosity of germinated brown rice flour and pregelatinized flour produced by spouted bed dryer

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	63800.798 ^a	7	9114.400	24424.111	0.000
Intercept	678822.177	1	678822.177	1819058.700	0.000
Treatment	63800.538	5	12760.108	34193.616	0.000
Replicate	0.259	2	0.130	0.348	0.715
Error	3.732	10	0.373		
Total	742626.707	18			
Corrected Total	63804.529	17			

a. $R^2 = 1.000$ (Adjusted $R^2 = 1.000$)

Table B93 Analysis of variance of gelatinization onset temperature of germinated brown rice flour and pregelatinized flour produced by spouted bed dryer

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	383.510 ^a	7	54.787	295.057	0.000
Intercept	85797.389	1	85797.389	462062.950	0.000
Treatment	382.200	5	76.440	411.669	0.000
Replicate	1.310	2	0.655	3.529	0.069
Error	1.857	10	0.186		
Total	86182.756	18			
Corrected Total	385.367	17			

a. $R^2 = 0.995$ (Adjusted $R^2 = 0.992$)**Table B94** Analysis of variance of gelatinization peak temperature of germinated brown rice flour and pregelatinized flour produced by spouted bed dryer

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	290.639 ^a	7	41.520	162.728	0.000
Intercept	96756.005	1	96756.005	379212.248	0.000
Treatment	289.056	5	57.811	226.578	0.000
Replicate	1.583	2	0.792	3.102	0.090
Error	2.552	10	0.255		
Total	97049.196	18			
Corrected Total	293.191	17			

a. $R^2 = 0.991$ (Adjusted $R^2 = 0.985$)

Table B95 Analysis of variance of gelatinization conclusion temperature of germinated brown rice flour and pregelatinized flour produced by spouted bed dryer

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	103.578 ^a	7	14.797	29.284	0.000
Intercept	126539.712	1	126539.712	250433.181	0.000
Treatment	100.206	5	20.041	39.663	0.000
Replicate	3.371	2	1.686	3.336	0.078
Error	5.053	10	0.505		
Total	126648.343	18			
Corrected Total	108.631	17			

a. $R^2 = 0.953$ (Adjusted $R^2 = 0.921$)**Table B96** Analysis of variance of degree of gelatinization of germinated brown rice flour and pregelatinized flour produced by spouted bed dryer

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	40.780 ^a	7	5.826	0.911	0.535
Intercept	56.471	1	56.471	8.835	0.014
Treatment	31.777	5	6.355	0.994	0.468
Replicate	9.003	2	4.502	0.704	0.517
Error	63.919	10	6.392		
Total	161.170	18			
Corrected Total	104.699	17			

a. $R^2 = 0.390$ (Adjusted $R^2 = -0.038$)

Table B97 Analysis of variance of retrogradation onset temperature of germinated brown rice flour and pregelatinized flour produced by spouted bed dryer

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	4.155 ^a	7	0.594	3.551	0.035
Intercept	37829.919	1	37829.919	226279.554	0.000
Treatment	3.364	5	0.673	4.025	0.029
Replicate	0.791	2	0.396	2.366	0.144
Error	1.672	10	0.167		
Total	37835.746	18			
Corrected Total	5.827	17			

a. $R^2 = 0.713$ (Adjusted $R^2 = 0.512$)**Table B98** Analysis of variance of retrogradation peak temperature of germinated brown rice flour and pregelatinized flour produced by spouted bed dryer

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	5.949 ^a	7	0.850	0.581	0.757
Intercept	54885.367	1	54885.367	37541.490	0.000
Treatment	3.976	5	0.795	0.544	0.740
Replicate	1.973	2	0.986	0.675	0.531
Error	14.620	10	1.462		
Total	54905.936	18			
Corrected Total	20.569	17			

a. $R^2 = 0.289$ (Adjusted $R^2 = -.208$)

Table B99 Analysis of variance of retrogradation conclusion temperature of germinated brown rice flour and pregelatinized flour produced by spouted bed dryer

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Sum of Squares	of freedom	
Corrected Model	78.781 ^a	7	11.254	6.667	0.004
Intercept	74740.090	1	74740.090	44275.760	0.000
Treatment	72.689	5	14.538	8.612	0.002
Replicate	6.092	2	3.046	1.804	0.214
Error	16.881	10	1.688		
Total	74835.751	18			
Corrected Total	95.661	17			

a. $R^2 = 0.824$ (Adjusted $R^2 = 0.700$)**Table B100** Analysis of variance of % retrogradation of germinated brown rice flour and pregelatinized flour produced by spouted bed dryer

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Sum of Squares	of freedom	
Corrected Model	193.940 ^a	7	27.706	1.566	0.251
Intercept	45175.634	1	45175.634	2552.727	0.000
Treatment	71.908	5	14.382	0.813	0.567
Replicate	122.032	2	61.016	3.448	0.073
Error	176.970	10	17.697		
Total	45546.544	18			
Corrected Total	370.910	17			

a. $R^2 = 0.523$ (Adjusted $R^2 = 0.189$)

Table B101 Analysis of variance of onset temperature of storage modulus of germinated brown rice flour and pregelatinized flour produced by spouted bed dryer

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	421.080 ^a	7	60.154	3609260.857	0.000
Intercept	91463.645	1	91463.645	5.488E9	0.000
Treatment	421.080	5	84.216	5052964.000	0.000
Replicate	0.000	2	5.000E-5	3.000	0.095
Error	0.000	10	1.667E-5		
Total	91884.726	18			
Corrected Total	421.081	17			

a. $R^2 = 1.000$ (Adjusted $R^2 = 1.000$)**Table B102** Analysis of variance of temperature of maximum storage modulus of germinated brown rice flour and pregelatinized flour produced by spouted bed dryer

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	198.973 ^a	7	28.425	775218.831	0.000
Intercept	113316.562	1	113316.562	3.090E9	0.000
Treatment	198.973	5	39.795	1085305.818	0.000
Replicate	0.000	2	5.000E-5	1.364	0.299
Error	0.000	10	3.667E-5		
Total	113515.535	18			
Corrected Total	198.973	17			

a. $R^2 = 1.000$ (Adjusted $R^2 = 1.000$)

Table B103 Analysis of variance of maximum storage modulus of germinated brown rice flour and pregelatinized flour produced by spouted bed dryer

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	953170.655 ^a	7	136167.236	38131.402	0.000
Intercept	3.420E7	1	3.420E7	9577776.322	0.000
Treatment	953168.532	5	190633.706	53383.844	0.000
Replicate	2.123	2	1.062	0.297	0.749
Error	35.710	10	3.571		
Total	3.516E7	18			
Corrected Total	953206.365	17			

a. $R^2 = 1.000$ (Adjusted $R^2 = 1.000$)**Table B104** Analysis of variance of maximum loss modulus of germinated brown rice flour and pregelatinized flour produced by spouted bed dryer

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	89700.546 ^a	7	12814.364	1653.871	0.000
Intercept	1192302.557	1	1192302.557	153883.173	0.000
Treatment	89696.773	5	17939.355	2315.322	0.000
Replicate	3.773	2	1.886	0.243	0.788
Error	77.481	10	7.748		
Total	1282080.584	18			
Corrected Total	89778.027	17			

a. $R^2 = 0.999$ (Adjusted $R^2 = 0.999$)

Table B105 Analysis of variance of maximum tan δ of germinated brown rice flour and pregelatinized flour produced by spouted bed dryer

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	0.005 ^a	7	0.001	.	.
Intercept	0.245	1	0.245	.	.
Treatment	0.005	5	0.001	.	.
Replicate	0.000	2	0.000	.	.
Error	0.000	10	0.000	.	.
Total	0.250	18			
Corrected Total	0.005	17			

a. $R^2 = 1.000$ (Adjusted $R^2 = 1.000$)

Table B106 Analysis of variance of storage modulus at 5 °C of germinated brown rice flour and pregelatinized flour produced by spouted bed dryer

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	1.741E6	7	248700.074	11030.003	0.000
Intercept	1.926E7	1	1.926E7	854280.596	0.000
Treatment	1740872.044	5	348174.409	15441.751	0.000
Replicate	28.473	2	14.236	0.631	0.552
Error	225.476	10	22.548		
Total	2.100E7	18			
Corrected Total	1741125.993	17			

a. $R^2 = 1.000$ (Adjusted $R^2 = 1.000$)

Table B107 Analysis of variance of loss modulus at 5 °C of germinated brown rice flour and pregelatinized flour produced by spouted bed dryer

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Sum of Square		
Corrected Model	56319.314 ^a	7	8045.616	1211.973	0.000
Intercept	467982.976	1	467982.976	70495.867	0.000
Treatment	56303.569	5	11260.714	1696.288	0.000
Replicate	15.745	2	7.872	1.186	0.345
Error	66.384	10	6.638		
Total	524368.674	18			
Corrected Total	56385.698	17			

a. $R^2 = 0.999$ (Adjusted $R^2 = 0.998$)**Table B108** Analysis of variance of tan δ at 5 °C of germinated brown rice flour and pregelatinized flour produced by spouted bed dryer

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Sum of Square		
Corrected Model	0.003 ^a	7	0.000	.	.
Intercept	0.423	1	0.423	.	.
Treatment	0.003	5	0.001	.	.
Replicate	0.000	2	0.000	.	.
Error	0.000	10	0.000		
Total	0.426	18			
Corrected Total	0.003	17			

a. $R^2 = 1.000$ (Adjusted $R^2 = 1.000$)

Table B109 Analysis of variance of swelling power at 50 °C of germinated brown rice flour and pregelatinized flour produced by spouted bed dryer

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	0.091 ^a	7	0.013	0.962	0.505
Intercept	45.093	1	45.093	3348.792	0.000
Treatment	0.066	5	0.013	0.986	0.472
Replicate	0.024	2	0.012	0.904	0.436
Error	0.135	10	0.013		
Total	45.319	18			
Corrected Total	0.225	17			

a. $R^2 = 0.402$ (Adjusted $R^2 = -0.016$)**Table B110** Analysis of variance of swelling power at 60 °C of germinated brown rice flour and pregelatinized flour produced by spouted bed dryer

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	0.169 ^a	7	0.024	2.088	0.141
Intercept	50.267	1	50.267	4345.017	0.000
Treatment	0.133	5	0.027	2.295	0.123
Replicate	0.036	2	0.018	1.569	0.255
Error	0.116	10	0.012		
Total	50.552	18			
Corrected Total	0.285	17			

a. $R^2 = 0.594$ (Adjusted $R^2 = 0.309$)

Table B111 Analysis of variance of swelling power at 70 °C of germinated brown rice flour and pregelatinized flour produced by spouted bed dryer

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	0.644 ^a	7	0.092	1.236	0.368
Intercept	65.513	1	65.513	880.329	0.000
Treatment	0.330	5	0.066	0.888	0.524
Replicate	0.313	2	0.157	2.106	0.173
Error	0.744	10	0.074		
Total	66.901	18			
Corrected Total	1.388	17			

a. $R^2 = 0.464$ (Adjusted $R^2 = 0.088$)**Table B112** Analysis of variance of swelling power at 80 °C of germinated brown rice flour and pregelatinized flour produced by spouted bed dryer

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	0.482 ^a	7	0.069	0.751	0.638
Intercept	98.654	1	98.654	1076.126	0.000
Treatment	0.438	5	0.088	0.955	0.488
Replicate	0.044	2	0.022	0.242	0.790
Error	0.917	10	0.092		
Total	100.053	18			
Corrected Total	1.399	17			

a. $R^2 = 0.345$ (Adjusted $R^2 = -0.114$)

Table B113 Analysis of variance of swelling power at 90 °C of germinated brown rice flour and pregelatinized flour produced by spouted bed dryer

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	0.606 ^a	7	0.087	3.177	0.048
Intercept	127.042	1	127.042	4662.084	0.000
Treatment	0.524	5	0.105	3.849	0.033
Replicate	0.082	2	0.041	1.498	0.270
Error	0.272	10	0.027		
Total	127.920	18			
Corrected Total	0.879	17			

a. $R^2 = 0.690$ (Adjusted $R^2 = 0.473$)**Table B114** Analysis of variance of solubility at 50 °C of germinated brown rice flour and pregelatinized flour produced by spouted bed dryer

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	11.094 ^a	7	1.585	23.665	0.000
Intercept	163.022	1	163.022	2434.167	0.000
Treatment	11.000	5	2.200	32.851	0.000
Replicate	0.094	2	0.047	0.702	0.519
Error	0.670	10	0.067		
Total	174.786	18			
Corrected Total	11.764	17			

a. $R^2 = 0.943$ (Adjusted $R^2 = 0.903$)

Table B115 Analysis of variance of solubility at 60 °C of germinated brown rice flour and pregelatinized flour produced by spouted bed dryer

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	11.711 ^a	7	1.673	14.190	0.000
Intercept	282.506	1	282.506	2396.085	0.000
Treatment	11.682	5	2.336	19.816	0.000
Replicate	0.029	2	0.015	0.123	0.885
Error	1.179	10	0.118		
Total	295.397	18			
Corrected Total	12.890	17			

a. $R^2 = 0.909$ (Adjusted $R^2 = 0.845$)**Table B116** Analysis of variance of solubility at 70 °C of germinated brown rice flour and pregelatinized flour produced by spouted bed dryer

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	7.184 ^a	7	1.026	16.794	0.000
Intercept	476.684	1	476.684	7800.146	0.000
Treatment	6.875	5	1.375	22.499	0.000
Replicate	0.310	2	0.155	2.533	0.129
Error	0.611	10	0.061		
Total	484.480	18			
Corrected Total	7.795	17			

a. $R^2 = 0.922$ (Adjusted $R^2 = 0.867$)

Table B117 Analysis of variance of solubility at 80 °C of germinated brown rice flour and pregelatinized flour produced by spouted bed dryer

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Sum of Square		
Corrected Model	12.449 ^a	7	1.778	105.947	0.000
Intercept	646.441	1	646.441	38511.739	0.000
Treatment	12.409	5	2.482	147.848	0.000
Replicate	0.040	2	0.020	1.196	0.342
Error	0.168	10	0.017		
Total	659.058	18			
Corrected Total	12.617	17			

a. $R^2 = 0.987$ (Adjusted $R^2 = 0.977$)**Table B118** Analysis of variance of solubility at 90 °C of germinated brown rice flour and pregelatinized flour produced by spouted bed dryer

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Sum of Square		
Corrected Model	18.166 ^a	7	2.595	106.160	0.000
Intercept	905.393	1	905.393	37037.125	0.000
Treatment	18.026	5	3.605	147.479	0.000
Replicate	0.140	2	0.070	2.865	0.104
Error	0.244	10	0.024		
Total	923.804	18			
Corrected Total	18.411	17			

a. $R^2 = 0.987$ (Adjusted $R^2 = 0.977$)

Table B119 Analysis of variance of protein content of germinated brown rice flour and pregelatinized flour produced by hot air oven

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	16.991 ^a	21	0.809	75.681	0.000
Intercept	5773.185	1	5773.185	540023.709	0.000
Treatment	16.969	19	0.893	83.541	0.000
Replicate	0.022	2	0.011	1.011	0.373
Error	0.406	38	0.011		
Total	5790.582	60			
Corrected Total	17.397	59			

a. $R^2 = 0.977$ (Adjusted $R^2 = 0.964$)**Table B120** Analysis of variance of GABA content of germinated brown rice flour and pregelatinized flour produced by hot air oven

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	918.167 ^a	21	43.722	695.329	0.000
Intercept	32978.675	1	32978.675	524470.751	0.000
Treatment	918.013	19	48.316	768.393	0.000
Replicate	0.155	2	0.077	1.230	0.304
Error	2.389	38	0.063		
Total	33899.232	60			
Corrected Total	920.557	59			

a. $R^2 = 0.997$ (Adjusted $R^2 = 0.996$)

Table B121 Analysis of variance of vitamin B1 content of germinated brown rice flour and pregelatinized flour produced by hot air oven

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	1.095 ^a	21	0.052	465.746	0.000
Intercept	14.500	1	14.500	129479.952	0.000
Treatment	1.094	19	0.058	514.296	0.000
Replicate	0.001	2	0.001	4.511	0.017
Error	0.004	38	0.000		
Total	15.599	60			
Corrected Total	1.100	59			

a. $R^2 = 0.996$ (Adjusted $R^2 = 0.994$)**Table B122** Analysis of variance of pasting temperature of germinated brown rice flour and pregelatinized flour produced by hot air oven

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	5014.115 ^a	21	238.767	2475.261	0.000
Intercept	260961.512	1	260961.512	2705343.953	0.000
Treatment	5013.761	19	263.882	2735.622	0.000
Replicate	0.354	2	0.177	1.835	0.173
Error	3.666	38	0.096		
Total	265979.292	60			
Corrected Total	5017.780	59			

a. $R^2 = 0.999$ (Adjusted $R^2 = 0.999$)

Table B123 Analysis of variance of peak viscosity of germinated brown rice flour and pregelatinized flour produced by hot air oven

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	61332.079 ^a	21	2920.575	9906.059	0.000
Intercept	526580.264	1	526580.264	1786064.410	0.000
Treatment	61331.770	19	3227.988	10948.747	0.000
Replicate	0.309	2	0.155	0.524	0.596
Error	11.203	38	0.295		
Total	587923.546	60			
Corrected Total	61343.282	59			

a. $R^2 = 1.000$ (Adjusted $R^2 = 1.000$)**Table B124** Analysis of variance of trough viscosity of germinated brown rice flour and pregelatinized flour produced by hot air oven

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	46952.433 ^a	21	2235.830	8761.533	0.000
Intercept	394971.671	1	394971.671	1547772.841	0.000
Treatment	46952.390	19	2471.178	9683.790	0.000
Replicate	0.043	2	0.022	0.085	0.919
Error	9.697	38	0.255		
Total	441933.801	60			
Corrected Total	46962.130	59			

a. $R^2 = 1.000$ (Adjusted $R^2 = 1.000$)

Table B125 Analysis of variance of breakdown viscosity of germinated brown rice flour and pregelatinized flour produced by hot air oven

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	806.041 ^a	7	115.149	304.628	0.000
Intercept	9557.301	1	9557.301	25284.004	0.000
Treatment	804.846	5	160.969	425.847	0.000
Replicate	1.195	2	0.598	1.581	0.253
Error	3.780	10	0.378		
Total	10367.122	18			
Corrected Total	809.821	17			

a. $R^2 = .995$ (Adjusted $R^2 = .992$)

Table B126 Analysis of variance of final viscosity of germinated brown rice flour and pregelatinized flour produced by hot air oven

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	336118.498 ^a	21	16005.643	69180.814	0.000
Intercept	2403889.575	1	2403889.575	1.039E7	0.000
Treatment	336118.458	19	17690.445	76462.996	0.000
Replicate	0.040	2	0.020	0.086	0.918
Error	8.792	38	0.231		
Total	2740016.864	60			
Corrected Total	336127.289	59			

a. $R^2 = 1.000$ (Adjusted $R^2 = 1.000$)

Table B127 Analysis of variance of setback viscosity of germinated brown rice flour and pregelatinized flour produced by hot air oven

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	135984.576 ^a	21	6475.456	19420.772	0.000
Intercept	850289.984	1	850289.984	2550135.180	0.000
Treatment	135984.536	19	7157.081	21465.058	0.000
Replicate	0.040	2	0.020	0.060	0.942
Error	12.670	38	0.333		
Total	986287.230	60			
Corrected Total	135997.246	59			

a. $R^2 = 1.000$ (Adjusted $R^2 = 1.000$)**Table B128** Analysis of variance of gelatinization onset temperature of germinated brown rice flour and pregelatinized flour produced by hot air oven

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	1478.577 ^a	21	70.408	378.735	0.000
Intercept	283453.517	1	283453.517	1524729.592	0.000
Treatment	1478.248	19	77.803	418.509	0.000
Replicate	0.329	2	0.164	0.884	0.422
Error	7.064	38	0.186		
Total	284939.159	60			
Corrected Total	1485.641	59			

a. $R^2 = 0.995$ (Adjusted $R^2 = 0.993$)

Table B129 Analysis of variance of gelatinization peak temperature of germinated brown rice flour and pregelatinized flour produced by hot air oven

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	965.778 ^a	21	45.989	292.532	0.000
Intercept	326835.110	1	326835.110	2078951.782	0.000
Treatment	965.716	19	50.827	323.304	0.000
Replicate	0.062	2	0.031	0.198	0.821
Error	5.974	38	0.157		
Total	327806.862	60			
Corrected Total	971.752	59			

a. $R^2 = 0.994$ (Adjusted $R^2 = 0.990$)**Table B130** Analysis of variance of gelatinization conclusion temperature of germinated brown rice flour and pregelatinized flour produced by hot air oven

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	967.196 ^a	21	46.057	28.166	0.000
Intercept	421757.120	1	421757.120	257925.438	0.000
Treatment	966.542	19	50.871	31.110	0.000
Replicate	0.654	2	0.327	0.200	0.820
Error	62.137	38	1.635		
Total	422786.453	60			
Corrected Total	1029.333	59			

a. $R^2 = 0.940$ (Adjusted $R^2 = 0.906$)

Table B131 Analysis of variance of degree of gelatinization of germinated brown rice flour and pregelatinized flour produced by hot air oven

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	930.210 ^a	21	44.296	2.750	0.003
Intercept	2486.256	1	2486.256	154.358	0.000
Treatment	910.820	19	47.938	2.976	0.002
Replicate	19.389	2	9.695	0.602	0.553
Error	612.070	38	16.107		
Total	4028.536	60			
Corrected Total	1542.279	59			

a. $R^2 = 0.603$ (Adjusted $R^2 = 0.384$)**Table B132** Analysis of variance of retrogradation onset temperature of germinated brown rice flour and pregelatinized flour produced by hot air oven

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	58.487 ^a	21	2.785	3.703	0.000
Intercept	116750.348	1	116750.348	155207.644	0.000
Treatment	55.934	19	2.944	3.914	0.000
Replicate	2.553	2	1.276	1.697	0.197
Error	28.584	38	0.752		
Total	116837.420	60			
Corrected Total	87.071	59			

a. $R^2 = 0.672$ (Adjusted $R^2 = 0.490$)

Table B133 Analysis of variance of retrogradation peak temperature of germinated brown rice flour and pregelatinized flour produced by hot air oven

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	29.998 ^a	21	1.428	3.968	0.000
Intercept	174793.720	1	174793.720	485566.151	0.000
Treatment	29.620	19	1.559	4.331	0.000
Replicate	0.378	2	0.189	0.525	0.596
Error	13.679	38	0.360		
Total	174837.396	60			
Corrected Total	43.677	59			

a. $R^2 = .687$ (Adjusted $R^2 = .514$)**Table B134** Analysis of variance of retrogradation conclusion temperature of germinated brown rice flour and pregelatinized flour produced by hot air oven

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	109.983 ^a	21	5.237	3.084	0.001
Intercept	243032.251	1	243032.251	143132.224	0.000
Treatment	109.348	19	5.755	3.389	0.001
Replicate	0.635	2	0.318	0.187	0.830
Error	64.522	38	1.698		
Total	243206.757	60			
Corrected Total	174.505	59			

a. $R^2 = 0.630$ (Adjusted $R^2 = 0.426$)

Table B135 Analysis of variance of % retrogradation of germinated brown rice flour and pregelatinized flour produced by hot air oven

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	102.115 ^a	21	4.863	0.215	1.000
Intercept	157655.469	1	157655.469	6959.336	0.000
Treatment	97.434	19	5.128	0.226	0.999
Replicate	4.681	2	2.341	0.103	0.902
Error	860.845	38	22.654		
Total	158618.429	60			
Corrected Total	962.960	59			

a. $R^2 = 0.106$ (Adjusted $R^2 = -0.388$)**Table B136** Analysis of variance of onset temperature of storage modulus of germinated brown rice flour and pregelatinized flour produced by hot air oven

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	1402.441 ^a	21	66.783	1310370.058	0.000
Intercept	304878.817	1	304878.817	5.982E9	0.000
Treatment	1402.441	19	73.813	1448303.477	0.000
Replicate	0.000	2	0.000	2.583	0.089
Error	0.002	38	5.096E-5		
Total	306281.259	60			
Corrected Total	1402.443	59			

a. $R^2 = 1.000$ (Adjusted $R^2 = 1.000$)

Table B137 Analysis of variance of temperature of maximum storage modulus of germinated brown rice flour and pregelatinized flour produced by hot air oven

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	402.322 ^a	21	19.158	356868.507	0.000
Intercept	368958.258	1	368958.258	6.873E9	0.000
Treatment	402.322	19	21.175	394433.456	0.000
Replicate	0.000	2	8.000E-5	1.490	0.238
Error	0.002	38	5.368E-5		
Total	369360.583	60			
Corrected Total	402.324	59			

a. $R^2 = 1.000$ (Adjusted $R^2 = 1.000$)**Table B138** Analysis of variance of maximum loss modulus of germinated brown rice flour and pregelatinized flour produced by hot air oven

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	4.447E6	21	211783.142	30996.546	0.000
Intercept	5.974E7	1	5.974E7	8744039.350	0.000
Treatment	4447419.447	19	234074.708	34259.136	0.000
Replicate	26.527	2	13.263	1.941	0.158
Error	259.634	38	6.832		
Total	6.419E7	60			
Corrected Total	4447705.607	59			

a. $R^2 = 1.000$ (Adjusted $R^2 = 1.000$)

Table B139 Analysis of variance of maximum tan δ of germinated brown rice flour and pregelatinized flour produced by hot air oven

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	0.034 ^a	21	0.002	138.020	0.000
Intercept	0.782	1	0.782	67032.143	0.000
Treatment	0.034	19	0.002	152.444	0.000
Replicate	2.333E-5	2	1.167E-5	1.000	0.377
Error	0.000	38	1.167E-5		
Total	0.816	60			
Corrected Total	0.034	59			

a. $R^2 = 0.987$ (Adjusted $R^2 = 0.980$)

Table B140 Analysis of variance of storage modulus at 5 °C of germinated brown rice flour and pregelatinized flour produced by hot air oven

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	7.652E6	21	364376.131	47124.227	0.000
Intercept	3.840E7	1	3.840E7	4966175.990	0.000
Treatment	7651885.659	19	402730.824	52084.583	0.000
Replicate	13.087	2	6.543	0.846	0.437
Error	293.825	38	7.732		
Total	4.605E7	60			
Corrected Total	7652192.571	59			

a. $R^2 = 1.000$ (Adjusted $R^2 = 1.000$)

Table B141 Analysis of variance of loss modulus at 5 °C of germinated brown rice flour and pregelatinized flour produced by hot air oven

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	164939.754 ^a	21	7854.274	1905.969	0.000
Intercept	759125.271	1	759125.271	184214.266	0.000
Treatment	164932.041	19	8680.634	2106.499	0.000
Replicate	7.713	2	3.856	0.936	0.401
Error	156.594	38	4.121		
Total	924221.618	60			
Corrected Total	165096.347	59			

a. $R^2 = 0.999$ (Adjusted $R^2 = 0.999$)**Table B142** Analysis of variance of tan δ at 5 °C of germinated brown rice flour and pregelatinized flour produced by hot air oven

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	0.019 ^a	21	0.001	102.476	0.000
Intercept	1.224	1	1.224	140954.859	0.000
Treatment	.019	19	0.001	113.242	0.000
Replicate	3.333E-6	2	1.667E-6	0.192	0.826
Error	0.000	38	8.684E-6		
Total	1.243	60			
Corrected Total	0.019	59			

a. $R^2 = 0.983$ (Adjusted $R^2 = 0.973$)

Table B143 Analysis of variance of swelling power at 50 °C of germinated brown rice flour and pregelatinized flour produced by hot air oven

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	12.146 ^a	21	0.578	10.568	0.000
Intercept	287.591	1	287.591	5254.703	0.000
treat	12.140	19	0.639	11.674	0.000
rep	0.006	2	0.003	0.057	0.945
Error	2.080	38	0.055		
Total	301.817	60			
Corrected Total	14.226	59			

a. $R^2 = 0.854$ (Adjusted $R^2 = 0.773$)**Table B144** Analysis of variance of swelling power at 60 °C of germinated brown rice flour and pregelatinized flour produced by hot air oven

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	18.122 ^a	21	0.863	22.264	0.000
Intercept	337.298	1	337.298	8702.172	0.000
treat	18.039	19	0.949	24.495	0.000
rep	0.083	2	0.041	1.064	0.355
Error	1.473	38	0.039		
Total	356.893	60			
Corrected Total	19.595	59			

a. $R^2 = 0.925$ (Adjusted $R^2 = 0.883$)

Table B145 Analysis of variance of swelling power at 70 °C of germinated brown rice flour and pregelatinized flour produced by hot air oven

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	15.361 ^a	21	0.731	27.372	0.000
Intercept	403.108	1	403.108	15084.440	0.000
treat	15.342	19	0.807	30.217	0.000
rep	0.018	2	0.009	0.343	0.712
Error	1.015	38	0.027		
Total	419.484	60			
Corrected Total	16.376	59			

a. $R^2 = 0.938$ (Adjusted $R^2 = 0.904$)**Table B146** Analysis of variance of swelling power at 80 °C of germinated brown rice flour and pregelatinized flour produced by hot air oven

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	18.985 ^a	21	0.904	12.464	0.000
Intercept	593.902	1	593.902	8188.154	0.000
treat	18.682	19	0.983	13.557	0.000
rep	0.303	2	0.151	2.088	0.138
Error	2.756	38	0.073		
Total	615.643	60			
Corrected Total	21.741	59			

a. $R^2 = 0.873$ (Adjusted $R^2 = 0.803$)

Table B147 Analysis of variance of swelling power at 90 °C of germinated brown rice flour and pregelatinized flour produced by hot air oven

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	18.825 ^a	21	0.896	12.080	0.000
Intercept	704.865	1	704.865	9498.175	0.000
treat	18.801	19	0.990	13.334	0.000
rep	0.024	2	0.012	0.163	0.851
Error	2.820	38	0.074		
Total	726.511	60			
Corrected Total	21.645	59			

a. $R^2 = 0.870$ (Adjusted $R^2 = 0.798$)**Table B148** Analysis of variance of solubility at 50 °C of germinated brown rice flour and pregelatinized flour produced by hot air oven

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	133.558 ^a	21	6.360	92.233	0.000
Intercept	1286.862	1	1286.862	18662.302	0.000
treat	133.449	19	7.024	101.858	0.000
rep	0.109	2	0.054	0.788	0.462
Error	2.620	38	0.069		
Total	1423.041	60			
Corrected Total	136.178	59			

a. $R^2 = 0.981$ (Adjusted $R^2 = 0.970$)

Table B149 Analysis of variance of solubility at 60 °C of germinated brown rice flour and pregelatinized flour produced by hot air oven

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	106.221 ^a	21	5.058	53.082	0.000
Intercept	1627.917	1	1627.917	17084.019	0.000
treat	104.571	19	5.504	57.758	0.000
rep	1.650	2	0.825	8.659	0.001
Error	3.621	38	0.095		
Total	1737.759	60			
Corrected Total	109.842	59			

a. $R^2 = 0.967$ (Adjusted $R^2 = 0.949$)**Table B150** Analysis of variance of solubility at 70 °C of germinated brown rice flour and pregelatinized flour produced by hot air oven

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Square		
Corrected Model	265.496 ^a	21	12.643	135.374	0.000
Intercept	2395.786	1	2395.786	25653.412	0.000
treat	265.358	19	13.966	149.546	0.000
rep	0.138	2	0.069	0.736	0.486
Error	3.549	38	0.093		
Total	2664.830	60			
Corrected Total	269.045	59			

a. $R^2 = 0.987$ (Adjusted $R^2 = 0.980$)

Table B151 Analysis of variance of solubility at 80 °C of germinated brown rice flour and pregelatinized flour produced by hot air oven

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Sum of Squares	of freedom	
Corrected Model	882.221 ^a	21	42.011	514.971	0.000
Intercept	4196.052	1	4196.052	51435.748	0.000
treat	881.423	19	46.391	568.663	0.000
rep	0.798	2	0.399	4.892	0.013
Error	3.100	38	0.082		
Total	5081.373	60			
Corrected Total	885.321	59			

a. $R^2 = 0.996$ (Adjusted $R^2 = 0.995$)**Table B152** Analysis of variance of solubility at 90 °C of germinated brown rice flour and pregelatinized flour produced by hot air oven

Source	Type III	Degree	Mean	F	Sig.
	Sum of Squares	of freedom	Sum of Squares	of freedom	
Corrected Model	1289.441 ^a	21	61.402	525.457	0.000
Intercept	6051.108	1	6051.108	51783.284	0.000
treat	1288.397	19	67.810	580.297	0.000
rep	1.044	2	0.522	4.468	0.018
Error	4.440	38	0.117		
Total	7344.990	60			
Corrected Total	1293.881	59			

a. $R^2 = 0.997$ (Adjusted $R^2 = 0.995$)