

Table 1 Comparison of agronomic characters of Koshihikari and Hikarishinseiki in 2006

Experimental locations	Cultivars	Heading date (m.d)	Maturity date (m.d)	Culm length (cm)	Panicle length (cm)	No. of Panicles (No./m ²)	Grain yield (kg/a)	1000-grain weight (g)	(1) Grain Quality	(2) Lodging degree	(3) Leaf blast score	(4) Panicle blast score	(5) Value of taste	(6) Eating quality	(7) Amylose content (%)	Protein content of brown rice (%)
Miyagi	Koshihikari	8.22	10.09	96.4	18.4	378	51.9	22.1	5.0	2.0			88.6			6.6
	Hikarishinseiki	8.22	10.10	75.5	17.7	406	46.6	22.0	5.0	0.0			86.3			6.8
Ibaraki	Koshihikari	8.06	9.15	88.4	21.0	374	60.4	21.8	5.0	0.5	1.3	0.8		0.00		6.9
	Hikarishinseiki	8.06	9.15	69.7	20.3	429	57.0	22.1	5.5	0.0	0.8	0.5		-0.53		7.2
Nagano	Koshihikari	8.09	9.21	96.0	18.7	496	67.5	20.2	4.0	5.0		0.0		0.00		
	Hikarishinseiki	8.09	9.25	76.0	18.3	500	76.2	20.9	5.0	1.0		0.0		-0.06		
Ishikawa	Koshihikari	8.05	9.10	91.8	18.0	360	56.6	21.9	3.0	3.0	0.0	0.0	84.6	0.00		6.7
	Hikarishinseiki	8.06	9.13	68.5	17.5	401	60.3	22.1	3.5	0.0	0.0	0.0	82.0	-0.64		7.2
Kyoto	Koshihikari	8.05	9.06	89.3	19.2	428	62.4	22.0	6.3	2.7				0.00		5.4
	Hikarishinseiki	8.04	9.08	71.2	19.1	427	68.1	22.4	8.0	0.0				-0.18		5.7
Hyogo	Koshihikari	8.11	9.14	87.9	18.1	416	53.8	22.4	4.0	1.0	0.5	0.0		0.00		
	Hikarishinseiki	8.11	9.13	78.2	19.2	435	51.1	21.8	5.0	0.0	0.0	0.0		-0.25		
Tottori	Koshihikari	8.08	9.19	91.0	19.5	326	54.4	23.9	4.0	2.9			60.0	0.00		
	Hikarishinseiki	8.08	9.19	71.0	18.0	369	59.1	24.1	4.5	0.1			59.0	0.05		
Shimane	Koshihikari	7.31	9.02	87.5	19.2	375	56.0	22.0	6.6	1.8	0.0	0.0	86.0	0.00		5.9
	Hikarishinseiki	7.30	8.29	67.3	17.3	415	54.3	22.1	7.0	0.0	0.0	0.0	85.0	0.06		5.6
Tokushima	Koshihikari	7.14	8.20	90.9	19.4	389	39.2	20.4	5.0	3.0	0.0	0.0				
	Hikarishinseiki	7.14	8.21	71.9	18.9	436	36.5	21.4	5.0	1.0	0.0	0.0				
Ehime	Koshihikari	8.12	9.15	89.0	21.1	308	50.3	23.6	5.0	3.0			68.0	0.00	20.3	
	Hikarishinseiki	8.13	9.15	70.0	19.6	368	50.9	23.6	5.0	0.0			64.0	-0.13	20.2	
Kumamoto	Koshihikari	8.08	9.26	89.0	18.8	373	54.9	22.0	3.5	4.5	0.8	1.0		0.00		7.6
	Hikarishinseiki	8.08	9.24	69.0	18.8	381	56.4	22.7	3.8	1.0	0.8	1.0		0.22		8.1
Average	Koshihikari	8.06	9.14	90.7	19.2	383	55.2	22.1	4.7	2.7	0.4	0.3	77.4	0.00	20.3	6.5
	Hikarishinseiki	8.06	9.15	71.7	18.6	415	56.1	22.3	5.2	0.3	0.3	0.2	75.3	-0.16	20.2	6.8

Note: (1) Grain quality was classified into nine grade; 1: excellent good to 9: especially bad low quality; (2) Lodging degree was determined based on the inclination angle of plant; 0: standing, 1: almost 70, 2: almost 50, 3: almost 30, 4: almost 10, 5: lodged; (3) Leaf blast score was determined based on the percentage of infected leaf area; 0:0%, 1:1%, 2: 2%, 3: 5%, 4: 10%, 5: 20%, 6: 40%, 7: 60%, 8: 80%, 9: 90%, 100%; (4) Panicle blast score was determined based on the percentage of infected kernels; 0:0%, 1:1%, 2: 2%, 3: 5%, 4: 10%, 5: 20%, 6: 40%, 7: 60%, 8: 80%, 9: 90%, 100%; (5) Value of taste was determined using a Taste-meter MA-90B (Tokyo Rice-producing Machine Factory, Japan); (6) Eating quality show the aggregate evaluation and classified into eleven degree; 5: excellent good to -5: especially bad.; (7) Amylose and protein content was measured by Near Infrared Spectrometer AN800 (Kett Electric Laboratory, Japan)