QUALITY CHARACTERIZATION OF CALIFORNIA PUBLIC RICE VARIETIES

M-103

M-103 is a very early maturing medium grain released in 1989. It has excellent resistance to cool temperature sterility. It produces high milling yield and the kernel is smaller than M-202. Its pedigree is: 78-D-18347/M-302.

U.S. MARKET TYPE:
MEDIUM GRAIN

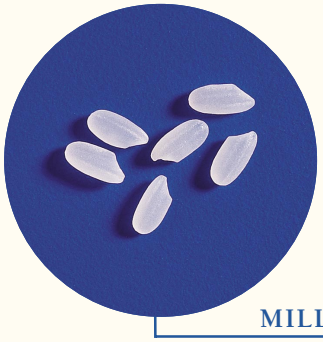
QUALITY TYPE:
CALROSE

	2000	2001	2002
Grain Dimensions (Paddy)			
Average Length (mm)	8.19	8.13	8.12
Average Width (mm)	2.95	3.08	3.07
L/W Ratio	2.8	2.6	2.7
Grain Dimensions (Brown)			
Average Length (mm)	5.97	5.97	5.85
Average Width (mm)	2.74	2.71	2.71
L/W Ratio	2.2	2.2	2.2
1000 Grain Weight (g)	22.6	22.7	21.1
Grain Dimensions (Milled)			
Average Length (mm)	5.62	5.55	5.62
Average Width (mm)	2.63	2.62	2.58
L/W Ratio	2.1	2.1	2.2
Apparent Amylose (%)	17.5	17.4	17.1
Protein (%)			
Brown	7.1	8.2	6.1
Milled	7.1	7.6	5.4
Alkali Spreading Value (1.5%KOH)	6.0	6.0	6.0
Alkali Spreading Value (1.7%KOH)	6.8	6.7	6.6
Cooking Time (min)	17.5	17.0	17.8
Differential Scanning Calorimetry			
Gelatinization Temperature (°C)	68.2	68.8	68.7

	2000	2001	2002
Rapid Visco Analyzer			
AACC Method:			
Peak	264	281	278
Hot Paste	146	152	142
Cool Paste	254	258	245
Setback	-10	-23	-33
Consistency	103	105	103
Breakdown	123	128	136
Pasting Temperature (°C)	72.0	73.4	72.4
Japanese Method:			
Peak	298	321	289
Hot Paste	144	142	116
Cool Paste	256	257	225
Setback	-42	-65	-64
Consistency	113	114	109
Breakdown	155	179	173
Pasting Temperature (°C)	71.9	72.1	72.6
Controlled Stress Rheometer (Pa.s)			
Peak	0.26	0.45	0.46
Hot Paste	0.19	0.27	0.28
Cool Paste	0.34	0.56	0.59
Setback	0.08	0.12	0.12
Consistency	0.15	0.30	0.31
Breakdown	0.07	0.18	0.18
Pasting Temperature (°C)	69.3	68.7	68.1

PADDY

BROWN



MILLED

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