

M-104



M-104 is a very early maturity medium grain released in 2000. It shows resistance to cool temperature sterility, shows high yield potential, and has a kernel size similar to M-202. Its pedigree is: M-103/6/M-102/4/M-201/3/M7/M9/5/M-103.

U.S. MARKET TYPE:
MEDIUM GRAIN

2000 2001 2002

Grain Dimensions (Paddy)

Average Length (mm)	8.56	8.46	8.64
Average Width (mm)	3.07	3.11	3.16
L/W Ratio	2.8	2.7	2.7

Grain Dimensions (Brown)

Average Length (mm)	6.31	6.26	6.41
Average Width (mm)	2.79	2.72	2.75
L/W Ratio	2.3	2.3	2.3
1000 Grain Weight (g)	24.4	24.0	23.9

Grain Dimensions (Milled)

Average Length (mm)	5.86	5.88	6.05
Average Width (mm)	2.71	2.66	2.67
L/W Ratio	2.2	2.2	2.3
Apparent Amylose (%)	18.2	17.6	17.6

Protein (%)

Brown	8.4	8.0	7.1
Milled	7.6	6.9	6.5

Alkali Spreading Value (1.5% KOH) 6.0 6.0 6.0

Alkali Spreading Value (1.7% KOH) 6.9 6.4 6.0

Cooking Time (min) 18.5 19.2 19.0

Differential Scanning Calorimetry

Gelatinization Temperature (°C) 67.4 69.5 68.7

QUALITY TYPE:
CALROSE

2000 2001 2002

Rapid Visco Analyzer

AACC Method:

Peak	259	290	251
Hot Paste	142	161	139
Cool Paste	257	274	251
Setback	-2	-16	0
Consistency	104	113	112
Breakdown	127	129	112
Pasting Temperature (°C)	73.7	73.7	73.8

Japanese Method:

Peak	295	339	265
Hot Paste	138	161	118
Cool Paste	259	285	237
Setback	-36	-55	-28
Consistency	121	124	118
Breakdown	157	179	147
Pasting Temperature (°C)	71.7	73.2	73.6

Controlled Stress Rheometer (Pa.s)

Peak	0.32	0.45	0.46
Hot Paste	0.20	0.27	0.29
Cool Paste	0.43	0.54	0.60
Setback	0.11	0.10	0.14
Consistency	0.23	0.27	0.31
Breakdown	0.12	0.17	0.17
Pasting Temperature (°C)	72.0	70.0	69.0



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