Research Note

PERFORMANCE OF HONEYDEW MELON CULTIVARS IN SOUTHERN PUERTO RICO, 1986-87 AND 1987-88[1]

Production of vegetable crops has increased consistently in Puerto Rico during the past decade.[2] The gross income of this enterprise was $12.8 million in 1976-77, whereas in 1986-87 it increased to $24.4 million. Local production of honeydew ($4.2 million in 1986-87) offers a good economic potential for both local and export markets.

Replicated trials of honeydew melon cultivars were planted at the Fortuna Substation on a San Antón clay loam (Cumulic Haplustolls, fine, mixed isohyphertermic).[3] The trials included five cultivars described by the seed company as high-yielding and resistant to multiple diseases. Seeds were sown 45.7 cm apart in plots of two beds of 1.52 x 4.57 m. Two guard rows 1.5 apart on both sides of the plots were planted to cantaloupe. Water was applied through overhead irrigation in 1986-87, and drip irrigation in 1987-88. Crops were planted and managed according to the recommendations of the Puerto Rico Agricultural Experiment Station.[4] A randomized complete block design with four blocks was used in both plantings. Data were analyzed statistically by analysis of variance and Duncan's Multiple Range Test.

Honeydew Greenfleshed of Ferry Morse was apparently the better producer and seemed to be more tolerant to a severe attack of downy mildew than the other four cultivars in 1986-87 (table 1). Greenfleshed of Ferry Morse and Tam Dew Improved of Harris Moran seemed to be better commercial yielders than the other three cultivars (table 1). Tam Dew Improved of Harris Moran, however, apparently had a better fruit size and Brix than the other four (table 2).

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[1]Manuscript submitted to Editorial Board 30 July 1989.

[2]Medrano, H., 1988. Empresas Agrícolas-Hortalizas, Departamento de Economía Agríc. y Sociología Rural, Estación Experimental Agrícola, Univ. P. R.

[3]Gierbolini, R. E., 1979. Soil survey of the Ponce area of southern Puerto Rico. Soil Conservation Service, USDA, in cooperation with the College of Agricultural Sciences, University of Puerto Rico.

[4]Estación Experimental Agrícola, 1979. Conjunto tecnológico para la producción de hortalizas, Publ. 102, 2da. ed.

TABLE 1.—*Yield of honeydew melon cultivars in southern Puerto Rico, 1986-87 and 1987-88*

Cultivar	Seed company	No. of fruits	Fruit yield (kg/ha)	Commercial yield[1]		
				Average fruit weight (kg)	Percentage of total yield	
					No. of fruits	Fruit yield
			1986-87			
Tam Dew Improved	Petoseed	6 b[2]	9136.69	1.01 ab	15 b	24 b
Honeydew Greer Flesh	Petoseed	6 b	9856.12	1.10 ab	29 ab	44 ab
Tam Dew Improved	Harris Moran	7 ab	9323.74	0.97 b	16 b	26 b
Tam Dew Improved	Ferry Morse	8 ab	13165.47	1.11 ab	21 ab	37 ab
Honeydew Greenfleshed	Ferry Morse	12 a	21366.91	1.20 a	35 a	52 a
			1987-88			
Tam Dew Improved	Petoseed	28 a[2]	43208.63	101. b	87 a	86 a
Honeydew Green Flesh	Petoseed	22 a	49798.56	1.54 a	78 a	93
Tam Dew Improved	Harris Moran	30 a	51798.56	1.23 b	88 a	94 a
Tam Dew Improved	Ferry Morse	26 a	41712.23	1.10 b	76 a	86 a
Honeydew Greenfleshed	Ferry Morse	28 a	49553.96	1.25 ab	88 a	90 a

[1] Average values of four pickings and four plots/cultivar.

[2] Means followed by the same letter do not differ at 5% probability level.

TABLE 2.—*Fruit size and soluble solids of honeydew cultivars in southern Puerto Rico, 1987-88*

Cultivar	Fruit size[1]			Soluble solids[1] (°Brix)
	Seed company	Length (cm)	Diameter	
Tam Dew Improved	Petoseed	11.30 a[2]	9.37 a	6.69 b
Honeydew Green Flesh	Petoseed	12.32 a	10.59 a	6.67 b
Tam Dew Improved	Harris Moran	15.32 a	12.83 a	9.50 a
Tam Dew Improved	Ferry Morse	11.89 a	10.34 a	7.94 ab
Honeydew Greenfleshed	Ferry Morse	12.40 a	10.72 a	7.21 b

[1] Average values of five pickings and four plots/cultivar.

[2] Means followed by the same letter do not differ at 5% probability level.