

New PEPPER VARIETIES

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GREEN CHILI YIELD TRIALS, SAN DIEGO COUNTY, 1963

Variety	Harvest period*	Yield total (Cumulative)		Number 1's		Number 2's		Culls	
		lbs/acre	lbs	lbs	%	lbs	%	lbs	%
Lark	early	6,729	4,512	67.1	1,229	18.3	988	14.6	
	medium	25,090	14,784	58.9	7,174	28.6	3,132	12.5	
	total	29,149	15,370	52.7	7,831	26.9	5,948	20.4	
M30	early	8,096	5,529	68.3	1,553	19.2	1,014	12.5	
	medium	29,884	21,064	70.5	5,215	17.4	3,605	12.1	
	total	33,264	22,033	66.2	5,781	17.4	5,450	16.4	
M75	early	7,532	5,613	74.5	1,026	13.6	893	11.9	
	medium	29,308	22,678	77.4	4,576	15.6	2,054	7.0	
	total	34,570	24,576	71.1	5,363	15.5	4,631	13.4	

* The season consisted of 5 harvests starting July 2, 1963, and spaced 2 weeks apart. Early yields represent the first and second harvests (July 2 and 16), medium harvest period represents 4 cumulative harvests (July 2, 16, 29 and Aug. 13) and total represents all 5 harvests ending August 27, 1963.

The tobacco mosaic virus (TMV) has long been a serious problem to growers of fresh market peppers. In order to reduce these losses, a new TMV-resistant wax (yellow) variety named Caloro and two TMV-resistant strains of California (Anaheim) Chili, 57M30 and 57M75, for green chili use have been released.

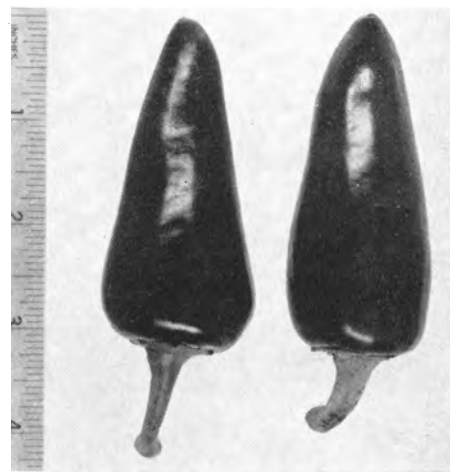
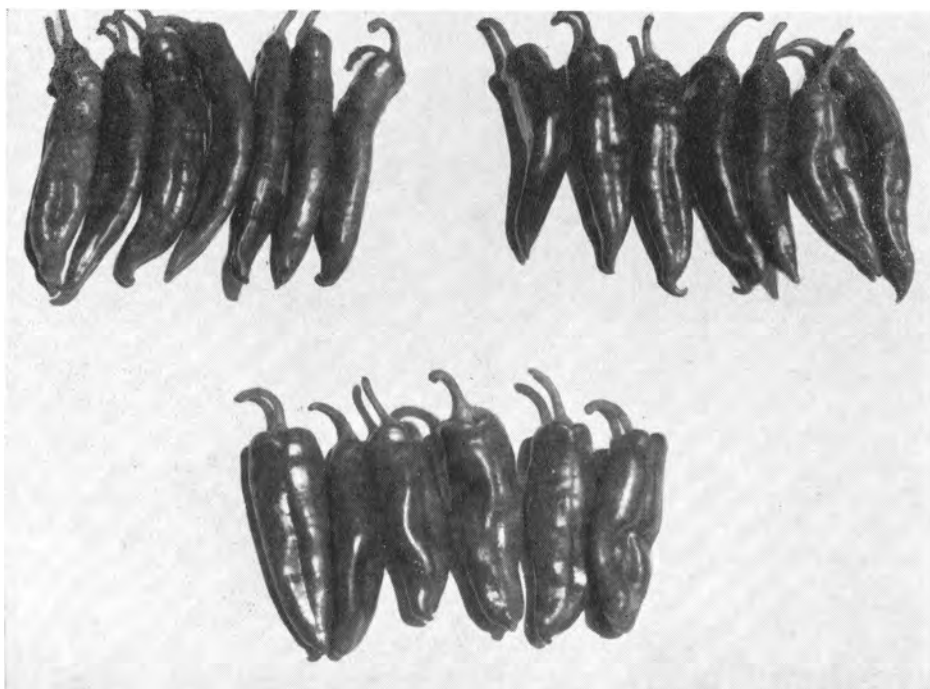
CALORO WAS DEVELOPED to replace the TMV-susceptible Floral Gem variety. It resulted from a cross between the TMV-resistant Fresno Chili and Floral Gem, and this then crossed to Hungarian Yellow Wax. Caloro consists of several F₆ lines massed to provide some variability. The plants are 18 to 20 inches tall and flat-to-rounded on top. The fruit are

a clear yellow when immature, highly pungent, thick walled, conic, about 1 $\frac{3}{4}$ × 2 $\frac{1}{2}$ inches in size, and average 22 to 25 fruit per pound. The fruit are pendant and easily picked.

In a replicated yield test in San Diego County in 1965, a marketable yield of over 18 tons per acre was obtained. In 1966 a limited amount of seed was distributed to growers in Merced and San Diego counties. Both grower and market acceptance has been good. Seed is now available in limited supply from several commercial seed companies.

The TMV-resistant green market chili lines were developed by crossing with a TMV-resistant paprika type, then crossed back repeatedly to selected California chili strains. These were tested for per-

Fruit characteristics of two new TMV-resistant green chili types, M75 (top left) and M30 (top right) compared with commercial variety Lark (below).



Caloro pepper fruit.

formance in fresh market pepper areas in southern California. Both types produce moderately tall plants, 18 to 30 inches in height, with good leaf cover.

The 57M30 strain is an early type with dark green pods averaging 6 to 7 inches in length. Marketable green fruit are available on this line 10 to 14 days earlier than in other varieties in comparable plantings. The 57M75 strain is a later line with long fruits averaging 7 inches or longer having thin flesh and a medium green pod color. The percentage of No. 1 grade fruits remains high during periods of warm weather, when pod length tends to be shorter, and the proportion of cull grade has been consistently lower with 57M75 than with other green market chilis.

Replicated field trials conducted in San Diego County indicate that yields from these two new chili types are higher than from the commercial variety Lark (see table).

Both of these new green chili types offer high market quality if the fruit is carefully graded for uniformity. Grower and market acceptance have been good. The use of both lines in a green market chili planting permits extension of the harvest season and provides more uniform delivery of quality produce to the market than by the use of one type alone.

Limited quantities of seed for these two green chilis are available from the Department of Vegetable Crops, Riverside.

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