HORTSCIENCE 33(2):350. 1998.

'NuMex Piñata' Jalapeño Chile

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Additional index words. Capsicum annuum, vegetable breeding, red pepper

New Mexico State Univ. Agricultural Experiment Station announces the release of 'NuMex Piñata', an open-pollinated jalapeño-type chile (*Capsicum annuum* L.). 'NuMex Piñata' is unique in the range of colors it expresses during fruit ripening; it is the only known jalapeño cultivar that changes in color from light green to yellow to orange and finally to red as it ripens.

Origin

'NuMex Piñata' was discovered in 1994 as a spontaneous genetic mutant (data not published) in a plot of the cultivar Early Jalapeño at the Leyendecker Plant Science Center, Las Cruces, N.M. 'Early Jalapeño' was released by PetoSeed in 1977 (Tigchelaar, 1980). Open-pollinated seed was saved from the single variant plant. 'NuMex Piñata' was developed by pedigree breeding involving two additional generations of selfing and single plant selection. During each generation, plants were selected for horticultural traits considered to be important to the jalapeño industry. Fruit trait selection included, but was not limited to, nonpurpling, noncorky, multiple-loculed, semi-pointed, and round-shouldered pods. Seed from a single plant (95C 1104-3) was increased under insect-proof cages (Bosland, 1993) and used in replicated field plot trials utilizing a randomized complete-block design with five replications. 'NuMex Piñata' was compared with 'Early Jalapeño', which served as the standard control. The breeding method used to develop 'NuMex Piñata' has produced a cultivar uniform for all selected traits.

Description

'NuMex Piñata' is a jalapeño-type chile that is unique in the transition of colors during fruit ripening (Fig. 1). The fruit changes from a light green in the immature fruit to yellow to orange and finally to red mature stages. The fruit of standard jalapeño cultivars such as 'Early Jalapeño' change from dark green to red as they ripen. 'NuMex Piñata' plants are compact and prolific producers of fruit (Table 1). Neither plant height at the third node nor plant width differ significantly from that of 'Early Jalapeño' (Table 1). Ample foliage protects fruit against sunscald. Plant foliage has a lutescent coloration compared with foliage of standard jalapeño cultivars (personal observation). Anthocyanin is present at the nodes and in the stems.

Neither yield nor pod characteristics measured differed from those of 'Early Jalapeño', with one exception (Table 1): pods of 'NuMex Piñata' were longer than those of 'Early Jalapeño'. Calyx removal is easy (personal observation). Calyx diameter is similar to 'Early Jalapeño'.

Approximate pungency is 50,000 Scoville Heat Units based on a dry-mass measurement (Collins et al., 1995), similar to values for 'Early Jalapeño'. 'NuMex Piñata' has no off flavors, as judged by a taste panel of five experienced jalapeño consumers (personal observation).

'NuMex Piñata' is best suited to home production and fresh-market uses. Its vibrant colors set it apart from standard jalapeño cultivars, and its uniqueness should be of great interest to consumers.

Availability

Breeder's seed will be maintained for 5 years after the release date by the New Mexico State Univ. Chile Breeding Program. Distribution of 'NuMex Piñata' is through the New Mexico Crop Improvement Association, New Mexico State Univ., Box 3Cl, Las Cruces, NM 88003.

Literature Cited

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Received for publication 3 June 1997. Accepted for publication 29 Sept. 1997. A contribution of the New Mexico Agricultural Experiment Station, New Mexico State Univ., Las Cruces, NM 88003. The cost of publishing this paper was defrayed in part by the payment of page charges. Under postal regulations, this paper therefore must be hereby marked *advertisement* solely to indicate this fact.

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Fig. 1. Fruits of 'NuMex Piñata', showing the yellow to red mature color transition.

Table 1. Comparison of 'NuMex Piñata' jalapeño and the standard jalapeño cultivar 'Early Jalapeño' at Las Cruces, N.M., 1996.

	Yield (kg·d·ha^{-1})			Fruit characteristics				Plant characteristics	
						Wall			
Cultivar	Total[x]	Marketable[y]	Pungency[z] (SHU)	Length (cm)	Width (cm)	thickness (mm)	Calyx diam (cm)	Height (cm)	Width (cm)
NuMex Piñata	6,551 ± 2,244 a[w]	5,396 ± 1,708 a	51,725 ± 1,708 a	5.90 ± 0.16 a	2.66 ± 0.05 a	4.6 ± 0.02 a	1.94 ± 0.07 a	12.0 ± 3.74 a	47.0 ± 14.73 a
Early Jalapeño	4,918 ± 2,172 a	4,052 ± 1,876 a	44,354 ± 8,599 a	5.41 ± 0.16 b	2.08 ± 0.17 a	4.88 ± 0.02 a	2.08 ± 0.17 a	14.6 ± 2.88 a	35.2 ± 11.61 a

[z]Pungency is reported in Scoville Heat Units (SHU).

[y]Marketable yield after overripe and misshapen pods removed.

[x]Total of all harvested fruit.

[w]Mean separation within columns by LSD at $P \leq 0.5$.