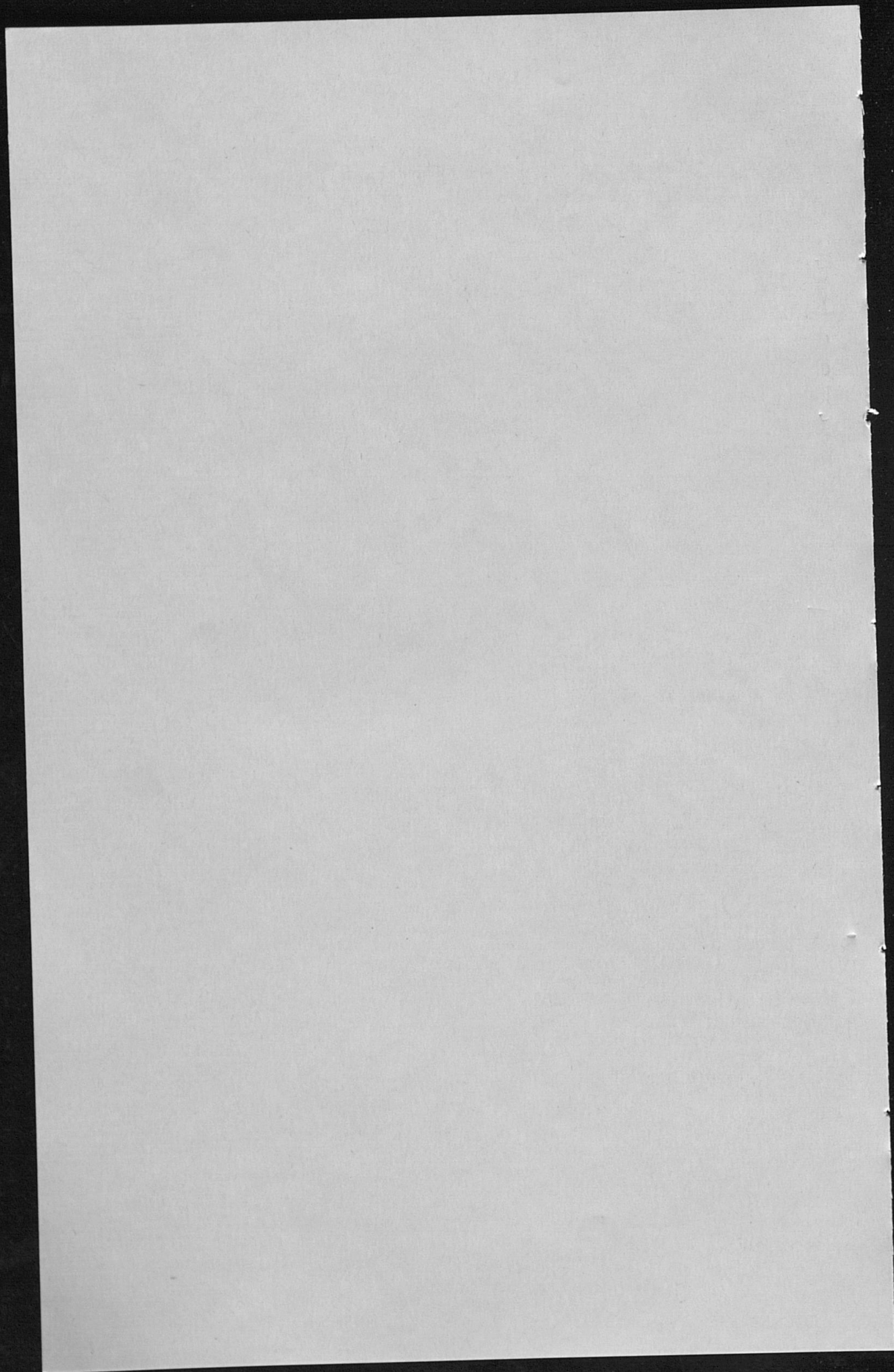


The
CITATION
STRAWBERRY

By C. E. CHAPLIN



UNIVERSITY OF KENTUCKY / AGRICULTURAL EXPERIMENT STATION
DEPARTMENT OF HORTICULTURE / LEXINGTON / CIRCULAR 605



The Citation Strawberry

By C. E. CHAPLIN

A strawberry breeding program at the Kentucky Agricultural Experiment Station was initiated in 1950. Its objectives are to develop varieties, adapted to Kentucky conditions, which are disease resistant, productive and bear fruit that is firm, of high quality, large, bright, and superior for both fresh and processing markets. To date, 145 crosses involving 20 varieties and 40 selections as parents have produced over 100,000 seedlings. The variety Citation resulted from one of these crosses.

Citation is a selection derived from the cross Fairland X Tennessee Shipper, made in 1951. This selection was made in 1953 and was tested under the number Ky. 12-51-10.

This variety makes a good matted row of large, vigorous plants. It is susceptible however, to leaf spot and leaf scorch, and standard control measures are recommended.

Citation blooms late—between Pocahontas and Tennessee Beauty—and matures 3 to 4 days after Pocahontas. It does not produce so many blooms as does Tennessee Beauty or Pocahontas. Probably because of the lighter set of fruit, fruit size is maintained better than that of most varieties throughout the season.

The fruit is medium-large, firm, medium-red with a bright red interior. It is blunt conic and more regular in shape than most varieties. The seeds are flush with the surface (Fig. 1).

PRODUCTIVITY

Citation has been productive in variety trials. Table 1 shows production at Lexington, Ky., compared with that of important

Table 1.— Production of Three Strawberry Varieties, Lexington, Ky., Quarts Per Acre

Variety	1956	1958	1960	1961	1962	1963	1964	Av.
Citation	9,528	7,080	9,528	6,360	7,416	6,936	12,000	8,407
Pocahontas	8,136	6,240	7,896	6,504	3,936	8,664	9,552	7,275
Tenn. Beauty	4,272	7,080	7,080	6,072	4,440	9,672	*	6,436

* Tennessee Beauty was not included in the 1964 trials.



Fig. 1.— Typical single fruiting cluster of Citation strawberry.

commercial varieties of Kentucky. It led in production in 4 of the 7 years and tied with Tennessee Beauty 1 year. It had the highest average for the 7-year period.

Trials were conducted in other parts of the state, but yields were not taken in most cases. Citation produced greater yields than the other varieties in 3 of 5 years at the Princeton Substation in Western Kentucky. Production was rated as "high" to "very high" in other locations.

Trials were conducted in other states in 1964. Table 2 gives these results and comments.

SHIPPING QUALITIES

Shipping tests indicate that Citation is firm enough to withstand the rigors of shipping. Table 3 shows the results of shipping tests in 1960. A large number of varieties and selections were involved, but only part of them are included in Table 3. The fruit was picked at Lexington in the firm ripe stage, graded, and placed in 16-quart crates. The crates were then transported to Cincinnati in an open truck, then held at room temperature, and evaluated

Table 2.— Production and Comments on Citation Strawberry, 1964

Location	Comments	Yield, Qt/Acre
Columbia, Mo.	One of highest producers	7,000 +
Lafayette, Ind.	Quality above average, perhaps too dark	----
Wooster, Ohio	Good quality, firm, somewhat light in center	12,000
Salisbury, Md.	Grew well in a very dry year	8,000-9,000
Beltsville, Md.	Very good, productive, good size, firm. Subject to mildew in low location	----
Knoxville, Tenn.	Firmness, size, shape, and surface very good	----
Auburn, Ala.	Performed exceptionally well	----

the next day. After this evaluation they were transported back to Lexington and evaluated again. Thus, the fruit was finally evaluated after having been held a total of approximately 48 hours at room temperature and after having been transported about 200 miles in an open truck.

PROCESSING QUALITIES

Large numbers of selections and varieties were processed by freezing each year. They were sliced, sugar added at the rate of 1 pound to 4 pounds of fruit, and quick-frozen in metal cans.

Table 3.— Evaluation of Seven Strawberry Varieties After Shipping, 1960*

Variety	Shipment No. 1		Shipment No. 2	
	June 2 Arr. at Cincinnati from Lexington 9:00 p.m.	June 4 Arr. at Lexington 6:00 a.m.	June 9 Arr. at Cincinnati from Lexington 8:30 p.m.	June 11 Arr. at Lexington 7:00 p.m.
Citation	Bright-firm	Very good	Bright-firm	Very good
Pocahontas	Bright-firm	Very good	Bright-firm	Very good
Tenn. Shipper	Bright-firm	Dark-much decay	Bright-firm	Very good
Tenn. Beauty	Bright-firm	Seeds dark- much decay	Bright-firm	Dark
Dixiland	Bright-firm	Dark	Bright-firm	Very good
Surecrop	Bright-firm	Slight decay	Bright-firm	Very good
E. Dawn	Bright-firm	Dark-much decay	Bright-firm	Slight decay

* 1959 tests gave essentially the same results.

The fruit was harvested at the full-ripe stage and processed immediately (or held overnight at 45°F and processed the next day). The second picking was used in all cases. The product was frozen at -20°F and stored at 0°F. It was subjected to taste panel evaluation approximately 6 months later. Earlier tests had indicated no detectable differences in quality after 3, 6, or 9 months' storage. The panel usually consisted of 10-14 persons who were instructed on evaluating the fruit. Criteria used were color, consistency, appearance, flavor, firmness, texture, and acidity.

Figure 2 shows a comparison of Citation with Pocahontas and Tennessee Beauty for a 3-year period. Citation had a higher average score over the 3-year period than either of the other two varieties. Citation ranked higher in all criteria except flavor and scored the same as Pocahontas in this respect. Pocahontas is the leading processing variety grown in Kentucky at present.

SUMMARY

Citation, Kentucky's new strawberry, is recommended for extensive trial in Kentucky and surrounding states. It is productive, a good shipper, and has outstanding processing qualities. Standard control measures for leaf diseases are required.

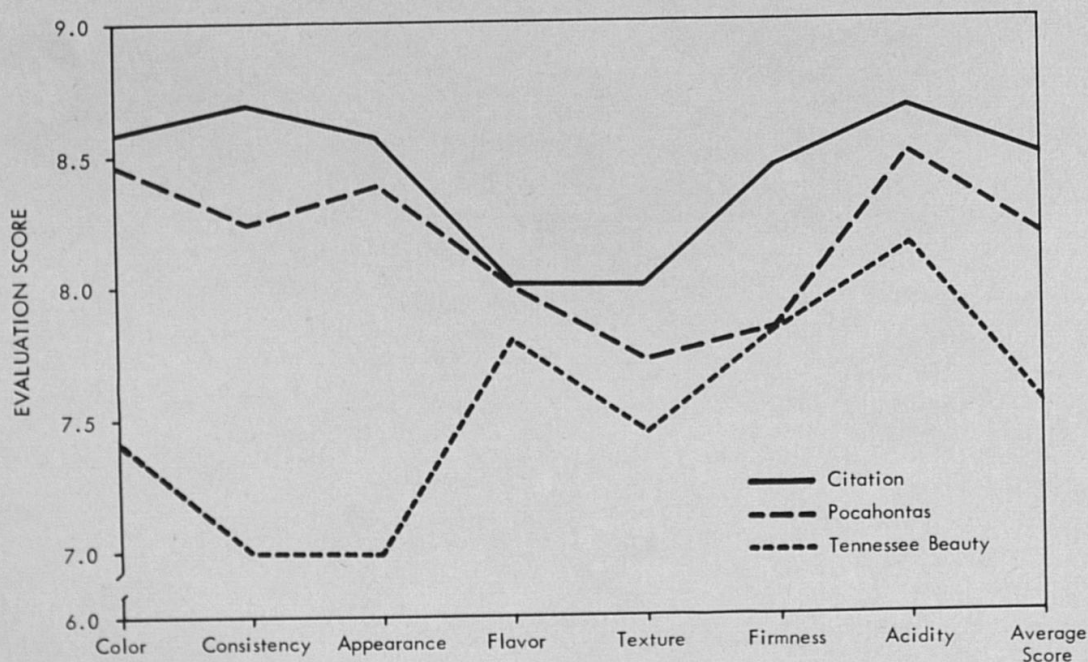
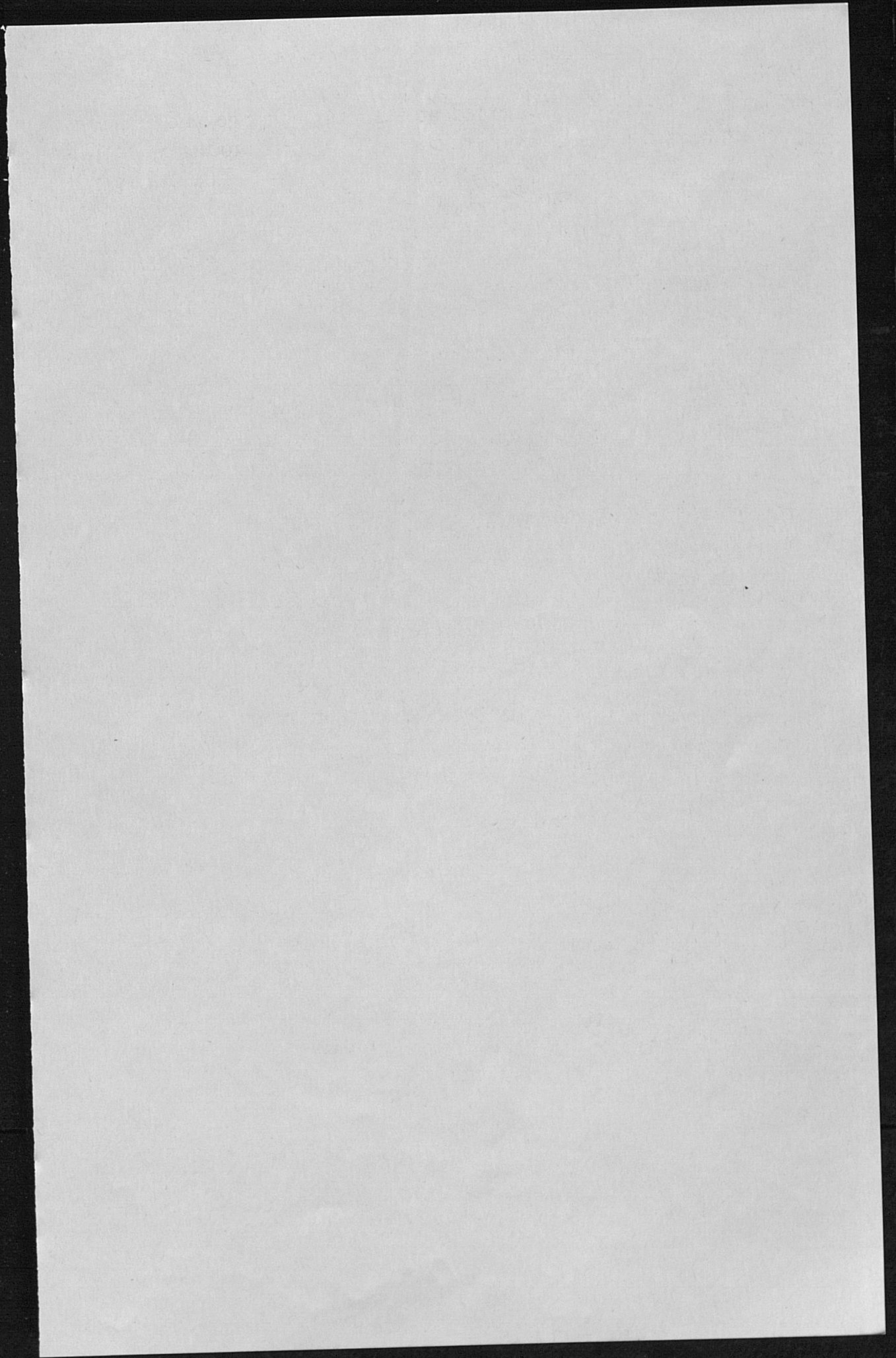


Fig. 2.— Taste panel evaluation scores of three strawberry varieties—Citation, Pocahontas, and Tennessee Beauty—3-year average, 1960-'61-'62 (10 = Perfect, 6 = Passing).



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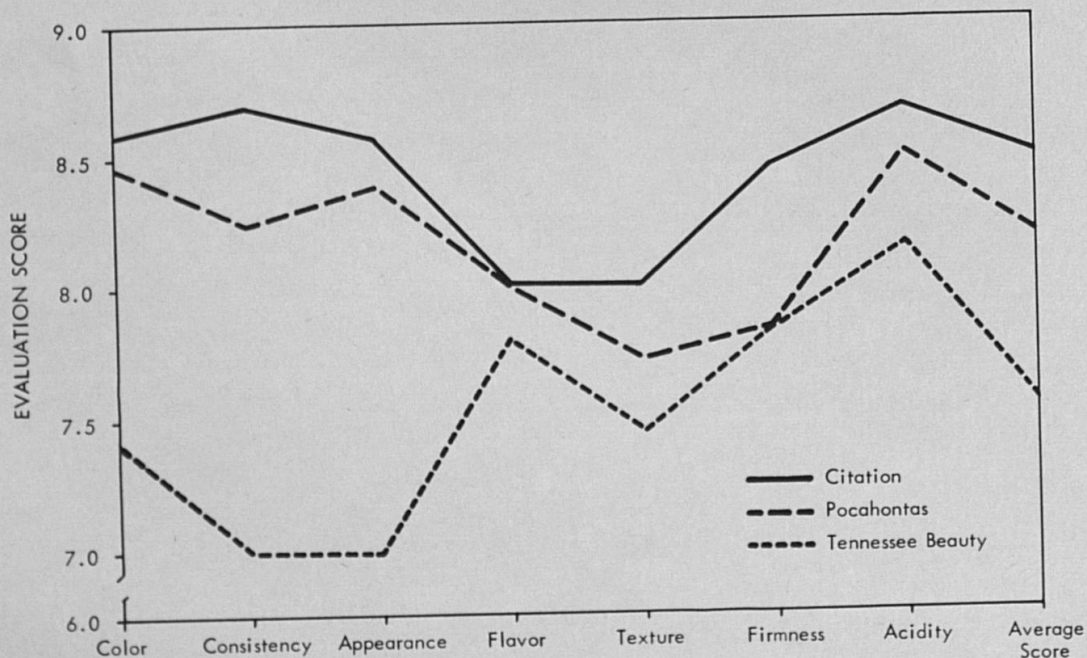


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