# Fresh Market Tomato Cultivar Evaluation for Northern Indiana, 1999 

Elizabeth T. Maynard<br>Dept. of Horticulture, Purdue University North Central, Westville, IN 46391

Fresh market tomatoes were evaluated at the Pinney-Purdue Ag Center in Wanatah, Indiana. Fourteen cultivars were evaluated in a replicated trial, and 26 cultivars in an unreplicated observation trial. Half of the plants of each cultivar were pruned, and half were not, to evaluate pruning effects on yield and fruit quality. Details of cultural practices and data collection are listed below.

Experimental design: Replicated trial: split plot, 3 replications. Cultivar=main plot; Pruning=subplot.
Observation trial: single plot per cultivar.
Main plot size: $\quad 1$ row by 16 ft . Rows 5 ft apart, plants 2 ft apart in row.
Soil type:
Fertilization:
Tracy sandy loam, pH 6.1 .
120 lb N/A from Urea, 220 lb . $\mathrm{K}_{2} \mathrm{O} / \mathrm{A}$ from 0-0-62, and 100 lb . $\mathrm{P}_{2} \mathrm{O} 5 / \mathrm{A}$ from 0-45-0 applied and incorporated before planting. Transplant starter solution supplied $1.5 \mathrm{lb} . \mathrm{N}, 7 \mathrm{lb} . \mathrm{P}_{2} \mathrm{O} 5$, and 2.4 lb . $\mathrm{K}_{2} \mathrm{O} / \mathrm{A}$ from 9-45-15 ( 1.5 lb . in 50 gal . water).
Planting and Staking: Seeded April 14 in 128-cell flats, transplanted May 27. Trained in a trellisweave system. Four plants per plot pruned to leave 3 branches below the first mainstem cluster, and four plants left unpruned.
Weed control: $\quad 4-\mathrm{ft}$ wide black plastic mulch, Lexone DF between plastic at 0.5 lb ./A June 12 , and hand-weeding.
Disease control: $\quad$ Quadris 2.08 EC, 5 oz./A July 16 and 30; Bravo 720, 3 pt./A July 23; Bravo C/M 2 lb ./A August 20.
Irrigation: Drip irrigation beneath plastic mulch as needed.
Harvest: $\quad$ Weekly harvests of fruit at or beyond turning stage $8 / 5$ through 9/9. Replicated trial: Graded into U.S. No. 1, No. 2, and culls. U.S. No. 1 sorted into USDA size classes: maximum large, extra large, large, medium+small. Observation trial: 7 cultivars harvested $8 / 5$ through $9 / 9$; remaining 19 harvested weekly $8 / 5$ through $8 / 18$. Graded into marketable (U.S. No. 1 and No. 2) and culls. Small-fruited types graded only on first two harvest dates.
Data collected: Weight and number of fruit in each category. For large-fruited types, number of culls due to catfacing, cracking, blossom end rot, and other reasons. Observations on fruit firmness and appearance. Small fruited types counted only on first two harvest dates.

Table 1 shows the results averaged across pruning treatments for cultivars in the replicated trial. U.S. No. 1 yield ranged from 7.9 to 18.9 lb. per plant ( 344 to 823 cwt ./A). Floralina, Sunleaper, and Florida 47 were the highest yielding cultivars. Real (statistically significant) differences in yield were limited to comparisons between the few highest and lowest-yielding cultivars. The

[^0]earliest variety was SunShine, followed by SunChief. SunShine produced higher quality fruit than SunChief, largely due to excessive cracking in SunChief. Early yield of No. 1 fruit, in pounds per plant, was highest for SunShine, followed by Sunleaper, PS771297, Floralina, SunChief, Red Sun, and Emperador, which had similar early yields. Of these, Sunleaper and Floralina had the smallest percentage of culls. Late cultivars included Leila, Florida 91, Mt. Fresh, and Florida 47. Fruit quality was good in these varieties, with the exception of Leila which tended to crack. Florida 91, Red Sun, Emperador, and Carolina Gold produced the largest fruit ( 9.1 oz . or greater), and the highest percentages of maximum large fruit. Florida 47, Floralina, Leila, Mt. Fresh, Mt. Spring, PS 771297, SunChief, and SunShine produced fruit between 8 and 9 oz . FM 223 and Sunleaper had the smallest fruit (less than 7.5 oz .). This was a good year to evaluate cracking because we saw more cracking than usual. Varieties particularly prone to cracking included Carolina Gold, Emperador, Leila, SunChief, and Red Sun. We also saw more blossom end rot than usual. Red Sun and Carolina Gold tended to have more BER than average. Catfacing was relatively low this year. SunShine, Mt. Spring, and PS 771297 had the highest rates, between $4 \%$ and $10 \%$. Based on this trial, recommended cultivars are: SunShine (very early), Floralina (high yield, good quality, main season), Florida 47 (high yield, good quality, late main season), Florida 91 (large fruit, good quality, late main season), Mt. Fresh (good quality, main season), Sunleaper (good yield, smaller fruit, good quality, early main season, heat-tolerant). Carolina Gold is of interest because of its golden yellow color and large fruit.

Pruning made a large difference in No. 1 yield, fruit size, and fruit quality (Tables 1 and 2). Averaged over all cultivars, pruning reduced yield of No. 1 fruit by $41 \%$, increased fruit size by $19 \%$, and increased percentage of cull fruit by one-third (Table 1). The increase in culls was due in large part to increased cracking of fruit from pruned plots: pruning more than doubled the percentage of cracked fruit. The effect of pruning on early yield (measured as pounds of No. 1 fruit harvested in the first three harvests) depended on the cultivar. Early yield of Florida 91 was more than doubled by pruning (Table 2). Early yield of Sunleaper, SunChief, and Red Sun was decreased by $1 / 3$ to $1 / 2$ by pruning. Pruning removed branches which would produce yield later in the season, and so for all cultivars the percentage of total yield harvested early was higher for pruned plants. Based on these results, pruning would be advised only when larger fruit size is essential, and/or the harvest period will be short, i.e. three weeks rather than six weeks. For pruning to be profitable, the labor cost of pruning and the reduction in total yield must be offset by higher prices or other market advantage.

Results for the 26 cultivars in the observation trial are presented in Table 3. Seven of the cultivars were harvested for the full 6 weeks: three roma types and four large-fruited types. Of the roma types, BHN 411 was the earliest and had the best quality fruit and greatest marketable yield. Of the large-fruited types, BHN 543 and BHN 329 had the best quality fruit. BHN 543 was similar in earliness to Emperador, and BHN 329 was similar to Leila, based on percent of marketable yield in first three harvests. Effects of pruning were similar to the replicated trial.

The remaining 19 cultivars in the observation trial were harvested for a period of three weeks. These cultivars included home garden types, traditional commercial cultivars, newer commercial cultivars, and heirloom varieties. Eleven were medium to large-fruited. Fruit quality of Paragon, Ultra Sweet, and Voyager was reasonable and these varieties would be worth considering for local sales. Fantom and Red Rider fruit were attractive, but cull percentage was high for commercial use. Presto, Big Beef, and Rutgers produced large fruit (over 10 oz . on unpruned
plants), but percentage of culls was high. Beefsteak produced large fruit weighing nearly a pound, but nearly all were severely catfaced. Daniela is a very attractive, small-fruited, very firm, long-shelf-life type. Jet Star and Monte Verde produced attractive fruit, but were so late that the yield of three harvests didn't give an adequate picture of the varieties. The remaining seven cultivars were a mix of cherry, pear, and roma. The orange cherry Sun Gold was remarkable for its flavor, but cracked easily when ripe. Red and Yellow Pear would make a nice combination for specialty markets. Santa was a slightly oblong cherry; quite attractive with a tart flavor. Juliet is best described as a miniature roma in shape, rich red in color, shiny, and resistant to cracking making it very attractive. This variety was meaty and firm. Principe Borghese is an heirloom canning variety with small nearly spherical fruit which remained attached to the plant long after ripe. Pruning drastically reduced the yield of this variety, and both pruned and unpruned plants appeared especially susceptible to diseases. Banana Legs is an heirloom yellow long-fruited type: a pointed, asymmetrical roma. In general the effect of pruning on these varieties was similar to the replicated trial.
Table 1. Yield and fruit size of fourteen tomato varieties and effect of pruning on yield and fruit size, Pinney Purdue Ag Center, Wanatah, Indiana, 1999.

| Cultivar | Co. | No. 1 Fruit |  |  |  |  |  |  |  |  |  | Total Fruit |  |  |  |  |  |  |  | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Yield per Plant |  | Average Wt. per (lb.) | \% Max.Large$------(\% ~$ | \% Ex. Large <br> of no. 1 | $\%$ \% Med. <br> Large + Small <br> Fruit by wt.)------  |  | Early Yield per Plant$(8-5 \text { to } 8-18)$ |  |  | Yield per Plant |  | $\begin{gathered} \% \\ \text { No. } 1 \end{gathered}$ | \% <br> No. 2 | $\begin{gathered} \% \\ \text { Culls } \end{gathered}$ | \% <br> Catface | $\begin{gathered} \hline \% \\ \text { BER } \end{gathered}$ | \% Crack |  |
|  |  | Number | Weight (lb.) |  |  |  |  |  | Number | Weight (lb.) \% | \%by Wt. | Number | Weight (lb.) | ----(\% | by wt.) |  | ---(\% by | y numb | ber)--- |  |
| Carolina Gold | NV | 21 | 11.4 | 0.57 | 45 | 44 | 10 | 0.8 | 5.0 | 3.3 | 34 | 41 | 23 | 48 | 13 | 39 | 1.6 a-d | 2.8 | 19.4 c | orangey-yellow. med. vine. |
| Emperador | PS | 23 | 12.6 | 0.58 | 48 | 42 | 10 | 0.3 | 6.2 | 4.4 | 39 | 40 | 22 | 55 | 12 | 33 | $1.4 \mathrm{a}-\mathrm{c}$ | 1.4 | 16.9 c-e | smooth skin, med-lg vine. |
| Floralina | PS | 36 | 18.4 | 0.53 | 35 | 54 | 10 | 0.9 | 8.6 | 5.0 | 30 | 53 | 27 | 69 | 10 | 21 | 2.5 b-d | 1.6 | 5.0 a | firm, attractive. med. vine. |
| Florida 47 | AS | 28 | 15.4 | 0.57 | 40 | 49 | 10 | 1.1 | 5.7 | 3.5 | 24 | 45 | 24 | 64 | 12 | 24 | 0.9 ab | 1.0 | 7.2 ab | firm, deep red color. med. vine. |
| $\begin{aligned} & \text { Florida } 91 \text { (EX } \\ & 10091 \text { ) } \end{aligned}$ | AS | 25 | 15.0 | 0.62 | 60 | 35 | 4 | 0.2 | 3.8 | 2.7 | 19 | 39 | 23 | 64 | 15 | 20 | 2.8 cd | 1.2 | 6.7 ab | firm, smooth, attractive. med. vine. |
| FM223 | HM | 35 | 15.0 | 0.44 | 18 | 54 | 25 | 3.1 | 7.9 | 4.1 | 29 | 57 | 24 | 62 | 11 | 27 | 0.9 a | 0.0 | $11.2 \mathrm{~b}-\mathrm{d}$ | smooth, very firm, med. vine. |
| Leila | NV | 21 | 11.3 | 0.55 | 37 | 55 | 8 | 0.4 | 2.6 | 1.5 | 16 | 41 | 22 | 51 | 14 | 36 | 2.4 b-d | 0.6 | 17.9 de | nice color, very firm, large vine. |
| Mt. Fresh | HM | 29 | 14.8 | 0.54 | 37 | 51 | 11 | 1.2 | 5.3 | 3.2 | 22 | 44 | 22 | 65 | 13 | 22 | 1.3 a -d | 0.3 | 7.7 ab | good color, firm, large vine. |
| Mt. Spring | NV | 26 | 12.9 | 0.51 | 36 | 50 | 12 | 1.1 | 6.9 | 3.9 | 34 | 43 | 22 | 59 | 9 | 32 | 6.3 e | 0.3 | 10.7 a-c | good color, smooth, firm. med. vine. |
| PS 771297 | PS | 26 | 13.7 | 0.53 | 38 | 50 | 11 | 0.5 | 9.3 | 5.4 | 43 | 43 | 22 | 61 | 9 | 31 | 4.1 de | 1.2 | 8.1 ab | very firm, nice color, smooth. small vine. |
| Red Sun | JS | 21 | 12.2 | 0.61 | 55 | 40 | 5 | 0.3 | 6.7 | 4.6 | 40 | 40 | 23 | 51 | 12 | 37 | 2.3 a-d | 5.1 | 19.2 de | large vine. |
| $\begin{aligned} & \text { SunChief (EX } \\ & 10081 \text { ) } \end{aligned}$ | AS | 15 | 7.9 | 0.55 | 35 | 56 | 8 | 0.3 | 8.5 | 4.9 | 67 | 34 | 18 | 42 | 8 | 50 | 0.6 a | 1.3 | 32.7 f | nice finish, firm. small vine. |
| Sunleaper | NV | 34 | 15.5 | 0.47 | 26 | 55 | 17 | 1.7 | 10.3 | 5.5 | 36 | 52 | 23 | 65 | 10 | 25 | 2.7 cd | 0.2 | 5.5 ab | nice color, smooth, med. vine. somewhat firm. |
| $\begin{aligned} & \text { SunShine (XP } \\ & \text { 10074) } \end{aligned}$ | AS | 19 | 9.4 | 0.50 | 28 | 54 | 17 | 1.1 | 16.5 | 8.2 | 88 | 39 | 19 | 50 | 14 | 36 | 10.5 f | 0.3 | 5.0 a | smooth skin, firm. very small vine. |
| Grand Mean |  | 26 | 13.2 | 0.54 | 38 | 49 | 11 | 0.9 | 7.4 | 4.3 | 37 | 44 | 22 | 58 | 12 | 31 | 2.9 | 1.2 | 12.4 |  |
| LSD .05\# |  | 7 | 3.1 | 0.05 | 11 | 8 | 6 | 1.2 | 2.1 | 1.2 | 11 | 7 | 3 | 10 | ns | 10 | - | ns | - |  |

[^1]Table 2. Yield and fruit size of fourteen tomato varieties grown with (p) or without (u) pruning, Pinney Purdue Ag Center, Wanatah, Indiana, 1999

| Cultivar | Prune Trt. | No. 1 Fruit |  |  |  |  |  |  |  |  |  | Total Fruit |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Yield per Plant |  | Average Wt. per (lb.) | \% Max. <br> Large $\qquad$ | \% Ex. <br> Large <br> f no. 1 | $\%$ $\%$ Med. <br> Large + Small <br> Fruit by wt.)------  |  | Early Yield per Plant(8-5 to 8-18) |  |  | Yield per Plant |  |  | \% \% <br> No. 2 Culls |  | \% Catface ---(\% b | \% $\%$ <br> BER Crack <br> $y$ number)---- |  |
|  |  | Number | Weight (lb.) |  |  |  |  |  | Number | Weight (lb.) | \%by Wt. | Number | Weight (lb.) |  |  |  |  |  |  |
| Carolina Gold | p | 13 | 7.9 | 0.61 | 54 | 37 | 9 | 0.9 | 5.5 | 3.9 | 50 | 32 | 19.6 | 41 | 14 | 46 | 1.1 | 2.1 | 26.4 |
| Carolina Gold | u | 28 | 14.8 | 0.53 | 36 | 51 | 12 | 0.7 | 4.5 | 2.7 | 18 | 50 | 27.3 | 55 | 12 | 33 | 2.1 | 3.5 | 12.4 |
| Emperador | p | 13 | 8.1 | 0.63 | 54 | 38 | 8 | 0.0 | 5.6 | 4.0 | 49 | 28 | 16.4 | 49 | 10 | 41 | 0.7 | 2.4 | 25.0 |
| Emperador | u | 32 | 17.2 | 0.53 | 42 | 45 | 12 | 0.7 | 6.7 | 4.8 | 29 | 53 | 28.1 | 61 | 15 | 24 | 2.2 | 0.4 | 8.9 |
| Floralina | p | 26 | 14.4 | 0.56 | 42 | 51 | 7 | 0.6 | 9.0 | 5.6 | 39 | 40 | 21.3 | 67 | 10 | 22 | 1.6 | 1.5 | 7.1 |
| Floralina | u | 46 | 22.4 | 0.49 | 28 | 58 | 14 | 1.2 | 8.1 | 4.5 | 20 | 65 | 31.9 | 70 | 11 | 19 | 3.4 | 1.8 | 3.0 |
| Florida 47 | p | 18 | 10.9 | 0.62 | 46 | 45 | 8 | 1.0 | 4.6 | 3.0 | 28 | 32 | 19.1 | 57 | 16 | 27 | 0.5 | 1.9 | 10.2 |
| Florida 47 | u | 39 | 20.0 | 0.51 | 34 | 53 | 12 | 1.1 | 6.8 | 3.9 | 19 | 57 | 28.4 | 70 | 9 | 21 | 1.3 | 0.2 | 4.2 |
| Florida 91 | p | 18 | 12.7 | 0.71 | 76 | 22 | 1 | 0.0 | 4.9 | 3.7 | 29 | 31 | 21.2 | 59 | 17 | 24 | 4.1 | 1.2 | 10.3 |
| Florida 91 | u | 33 | 17.2 | 0.53 | 44 | 48 | 7 | 0.4 | 2.6 | 1.6 | 9 | 48 | 24.8 | 69 | 14 | 17 | 1.5 | 1.2 | 3.0 |
| FM 223 | p | 23 | 10.9 | 0.48 | 20 | 59 | 19 | 1.4 | 6.8 | 3.8 | 35 | 43 | 19.1 | 57 | 11 | 32 | 0.4 | 0.0 | 15.2 |
| FM 223 | u | 48 | 19.0 | 0.40 | 15 | 48 | 32 | 4.9 | 8.9 | 4.3 | 22 | 72 | 28.1 | 68 | 11 | 22 | 1.3 | 0.0 | 7.2 |
| Leila | p | 13 | 7.9 | 0.61 | 49 | 47 | 4 | 0.3 | 2.7 | 1.7 | 22 | 29 | 17.4 | 45 | 12 | 43 | 1.4 | 0.9 | 26.2 |
| Leila | u | 30 | 14.8 | 0.50 | 25 | 62 | 12 | 0.5 | 2.5 | 1.4 | 10 | 52 | 26.2 | 57 | 15 | 28 | 3.5 | 0.3 | 9.7 |
| Mt. Fresh | p | 18 | 10.8 | 0.61 | 47 | 50 | 4 | 0.0 | 4.5 | 3.0 | 27 | 30 | 18.4 | 58 | 17 | 25 | 1.1 | 0.0 | 10.8 |
| Mt. Fresh | u | 41 | 18.8 | 0.46 | 28 | 52 | 18 | 2.5 | 6.1 | 3.3 | 18 | 59 | 26.2 | 72 | 8 | 20 | 1.4 | 0.6 | 4.7 |
| Mt. Spring | p | 21 | 10.8 | 0.55 | 47 | 42 | 10 | 1.6 | 7.1 | 4.4 | 45 | 36 | 19.6 | 54 | 9 | 37 | 5.1 | 0.5 | 16.8 |
| Mt. Spring | u | 32 | 14.9 | 0.47 | 26 | 59 | 15 | 0.7 | 6.8 | 3.5 | 24 | 51 | 23.8 | 63 | 9 | 28 | 7.4 | 0.0 | 4.6 |
| PS 771297 | p | 17 | 9.6 | 0.57 | 45 | 46 | 9 | 0.2 | 8.7 | 5.4 | 56 | 32 | 17.0 | 57 | 7 | 37 | 4.0 | 1.7 | 11.8 |
| PS 771297 | u | 36 | 17.9 | 0.50 | 32 | 55 | 12 | 0.8 | 9.9 | 5.4 | 30 | 55 | 27.6 | 65 | 11 | 24 | 4.2 | 0.7 | 4.4 |
| Red Sun | p | 12 | 8.0 | 0.67 | 61 | 37 | 2 | 0.3 | 4.5 | 3.3 | 41 | 30 | 18.3 | 44 | 16 | 40 | 1.5 | 7.2 | 23.5 |
| Red Sun | u | 29 | 16.4 | 0.56 | 48 | 43 | 8 | 0.4 | 8.9 | 6.0 | 39 | 50 | 27.8 | 58 | 8 | 34 | 3.1 | 3.0 | 15.0 |
| SunChief | p | 9 | 5.3 | 0.58 | 39 | 55 | 6 | 0.0 | 5.8 | 3.6 | 71 | 26 | 15.0 | 34 | 7 | 59 | 0.9 | 0.4 | 41.0 |
| SunChief | u | 21 | 10.4 | 0.51 | 32 | 57 | 10 | 0.6 | 11.3 | 6.2 | 62 | 42 | 21.1 | 49 | 10 | 41 | 0.4 | 2.1 | 24.4 |
| Sunleaper | p | 23 | 11.5 | 0.50 | 27 | 59 | 13 | 1.4 | 8.1 | 4.4 | 39 | 40 | 19.3 | 60 | 11 | 29 | 1.9 | 0.2 | 8.3 |
| Sunleaper | $u$ | 44 | 19.5 | 0.44 | 25 | 52 | 21 | 2.0 | 12.5 | 6.7 | 34 | 64 | 27.5 | 71 | 8 | 21 | 3.5 | 0.1 | 2.6 |
| SunShine | p | 16 | 8.5 | 0.54 | 35 | 54 | 12 | 0.0 | 14.8 | 7.9 | 94 | 33 | 16.9 | 50 | 15 | 35 | 10.1 | 0.3 | 5.9 |
| SunShine | u | 23 | 10.4 | 0.46 | 21 | 55 | 22 | 2.1 | 18.2 | 8.6 | 81 | 44 | 20.6 | 51 | 12 | 37 | 10.9 | 0.4 | 4.0 |
| LSD for effect of pruning within a cultivar.\# |  | 7 | 3.5 | 0.07 | 11 | 11 | 6 | 1.3 | 4.7 | 2.0 | 13 | 10 | 4.7 | 11 | 5 | 10 | - | -- | - |

Table 3. Yield and fruit size of tomato varieties grown with (p) or without (u) pruning in an unreplicated trial, Wanatah, Indiana 1999.

| Cultivar | Co. | Prune Trt. | Mkt. Fruit | it per Plant | Average Wt. per Mkt. Fruit (lb.) | Total Fruit per Plant |  | Cull Fruit | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Number | Weight (lb.) |  | Number | Weight (lb.) | (\% by Wt.) |  |
| Cultivars Harvested Aug. 5 - Sept. 9 |  |  |  |  |  |  |  |  |  |
| BHN 255 | BHN | p | 13 | 7.7 | 0.59 | 38 | 22.4 | 66 | cracking on pruned plants. |
| BHN 255 | BHN | u | 38 | 19.9 | 0.53 | 53 | 27.7 | 28 | smooth skin, firm, large vine. |
| BHN 329 | BHN | p | 23 | 12.1 | 0.52 | 35 | 16.9 | 29 | smooth skin, firm, small plant. |
| BHN 329 | BHN | u | 30 | 14.4 | 0.48 | 47 | 21.2 | 32 |  |
| BHN 404 | BHN | p | 31 | 7.1 | 0.23 | 47 | 10.4 | 32 | tendency to rough fruit |
| BHN 404 | BHN | u | 61 | 12.8 | 0.21 | 84 | 16.4 | 22 | and rain check. |
| BHN 410 | BHN | p | 51 | 11.3 | 0.22 | 63 | 13.5 | 16 | tendency to roughness. |
| BHN 410 | BHN | u | 76 | 16.7 | 0.22 | 93 | 20.0 | 17 | fruit length: 3"; width: 2". |
| BHN 411 | BHN | p | 63 | 15.0 | 0.24 | 77 | 17.8 | 16 | small plants. |
| BHN 411 | BHN | u | 98 | 20.0 | 0.21 | 114 | 22.5 | 11 | fruit length: 3.2"; width: $2^{\prime \prime}$. |
| BHN 444 | BHN | p | 14 | 8.0 | 0.59 | 34 | 18.2 | 56 | cracking on pruned plants, |
| BHN 444 | BHN | u | 39 | 17.7 | 0.46 | 59 | 28.3 | 38 | smooth skin, attractive, firm. |
| BHN 543 (C1075) | BHN | p | 17 | 9.8 | 0.59 | 30 | 16.8 | 41 | smooth, small blossom scar, |
| BHN 543 (C1075) | BHN | u | 38 | 19.1 | 0.50 | 55 | 27.5 | 30 | nice color, firm. |
| Cultivars Harvested Aug. 5-Aug. 18, medium or large fruit |  |  |  |  |  |  |  |  |  |
| Beefsteak | TT | p | 0 | 0.2 | 0.92 | 8 | 5.7 | 96 | open pollinated (op). vigorous |
| Beefsteak | TT | u | 0 | 0.1 | 0.58 | 9 | 5.8 | 97 | indeterminate. severe catfacing. |
| Big Beef | JS | p | 5 | 3.7 | 0.77 | 10 | 7.8 | 53 | much cracking, otherwise |
| Big Beef | JS | u | 9 | 6.4 | 0.69 | 20 | 14.4 | 56 | attractive fruit. indeterminate. |
| Daniela | JS | p | 2 | 0.7 | 0.32 | 4 | 1.2 | 39 | smooth, somewhat tough skin. |
| Daniela | JS | u | 9 | 3.3 | 0.36 | 12 | 3.9 | 14 | very vigorous indeterminate. |
| Fantom | TT | p | 8 | 4.0 | 0.53 | 16 | 9.2 | 57 | shiny, smooth skin. |
| Fantom | TT | u | 10 | 4.8 | 0.50 | 16 | 7.5 | 36 |  |
| Jet Star | TT | p | 2 | 0.8 | 0.55 | 2 | 1.0 | 17 | indeterminate. very soft fruit. |
| Jet Star | TT | u | 3 | 1.7 | 0.56 | 5 | 2.6 | 36 |  |
| Monte Verde | RU | p | 1 | 0.4 | 0.29 | 4 | 1.8 | 79 | indeterminate. op. |
| Monte Verde | RU | u | 1 | 0.7 | 0.65 | 3 | 1.0 | 33 |  |
| Paragon | JS | p | 5 | 2.9 | 0.55 | 8 | 4.2 | 30 | smooth skin, nice color. |
| Paragon | JS | u | 7 | 3.1 | 0.46 | 11 | 5.0 | 38 | large determinate plant. |
| Presto | TT | p | 3 | 1.8 | 0.74 | 5 | 3.9 | 52 | vigorous determinate. nice color. |
| Presto | TT | u | 9 | 5.9 | 0.65 | 13 | 8.7 | 32 | soft fruit. |
| Red Rider | ST | p | 7 | 4.2 | 0.60 | 10 | 5.8 | 28 | small plants. nice color. |
| Red Rider | ST | u | 4 | 1.8 | 0.42 | 12 | 3.9 | 54 | firmness=fair. |
| Rutgers | TT | p | 3 | 1.5 | 0.55 | 13 | 8.1 | 81 | op. |
| Rutgers | TT | u | 4 | 2.5 | 0.66 | 12 | 7.5 | 67 |  |
| Ultra Sweet | ST | p | 14 | 7.9 | 0.57 | 19 | 10.2 | 22 | indeterminate. firmness=fair. |
| Ultra Sweet | ST | u | 19 | 9.9 | 0.52 | 24 | 12.4 | 20 |  |
| Voyager | JS | p | 7 | 4.5 | 0.64 | 11 | 6.3 | 29 | smooth skin. |
| Voyager | JS | u | 11 | 5.5 | 0.52 | 15 | 7.5 | 27 |  |
| Cultivars Harvested Aug. 5 to Aug. 18, cherry, pear, and roma types* |  |  |  |  |  |  |  |  |  |
| Banana Legs | RU | p | . | 2.5 | 0.169 |  | 2.9 | 12 | fruit length: 3.2"; width: 1.5 ". op. |
| Banana Legs | RU | u | . | 3.2 | 0.168 | . | 3.4 | 6 |  |
| Juliet | JS | p | . | 7.9 | 0.063 | . | 7.9 | 1 | vigorous indeterminate. |
| Juliet | JS | u | . | 10.7 | 0.055 | . | 11.0 | 4 | fruit length: 1.7", width 1.2" |
| Principe Borghese | RU | p | . | 1.3 | 0.040 | . | 1.3 | 16 | determinate processing type. op. |
| Principe Borghese | RU | u | . | 8.9 | 0.043 | . | 9.4 | 8 | fruit length 1.3", width 1.2" |
| Red Pear | JS | p | . | 1.2 | 0.028 | . | 1.3 | 5 | cracking. vig. indeterminate. |
| Red Pear | JS | u | . | 3.2 | 0.026 | . | 3.3 | 5 | fruit length 1.4"; width 1 ". |
| Santa | JS | p | . | 5.2 | 0.022 | . | 5.3 | 4 | indeterminate. |
| Santa | JS | u | . | 5.0 | 0.021 |  | 5.1 | 2 | fruit length 1"; width .85" |
| Sun Gold | JS | p | . | 5.1 | 0.019 | . | 5.5 | 13 | great flavor. cracking. vig.ind. |
| Sun Gold | JS | u | . | 7.7 | 0.016 | . | 8.5 | 13 | fruit length .86", width .89". |
| Yellow Pear | JS | p | . | 0.6 | 0.030 | . | 0.6 | 10 | very vigorous indeterminate. |
| Yellow Pear | JS | u | . | 0.8 | 0.028 | . | 0.8 | 5 | fruit length 1.6 "; width 1.0" |

[^2]
[^0]:    Originally published in Midwestern Vegetable Variety Trial Report for 1999. Compiled by James E. Simon, Mario R. Morales, and Winthrop B. Phippen. Bulletin No. 788. Dept. of Horticulture and Office of Agricultural Research Programs, Purdue University, W. Lafayette, Indiana. December 1999.

[^1]:    
    Pruned
    \#Fisher's protected least significant difference, $\mathrm{p}=.05$. For \%catface and \%crack, means followed
    $+\mathrm{ns}, \dagger^{*},{ }^{* *}, * * *$, and ${ }^{* * * * *}$ indicate non-significance, and $\mathrm{p}<.1, .05, .01, .001, .0001$ respectively.

[^2]:    *Average Fruit size and percent culls determined from first 2 harvests for cherry, pear, and roma tomatoes. Fruits not counted on $8 / 18$

