

Sunrise, a New, Red Stele Resistant Strawberry Variety

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Sunrise, a new strawberry variety resistant to red stele, has been released by the Crops Research Division, Agricultural Research Service, U. S. Department of Agriculture, and the Maryland Agricultural Experiment Station.

The Sunrise (tested as Md-US 2601) originated from a cross of US 4152 x Stelemaster, made in 1952 and first selected in 1954 at Salisbury, Maryland.

Berries of Sunrise are medium in size, have a glossy surface and a light, bright red uniform color that does not darken. They retain an attractive appearance after harvest longer than many varieties. Berries have a symmetrical conic shape with slight neck on secondary and later berries. Flavor is subacid with good dessert quality. The flesh is firm, light pink in color, but too pale for good frozen pack appearance in consumer size packages.

Plants of Sunrise are very vigorous, produce runners freely, are very vigorous, and highly resistant to A-1, A-2, A-3 and A-6 races of the red stele fungus, and partially resistant to race A-4. They are also resistant to Verticillium wilt. Leaves are resistant to mildew and leaf scorch, but very susceptible to leaf spot. Plants have been moderately productive in narrow matted rows in Maryland, New Jersey, and northward and very productive in the southern Midwest. The performance of Sunrise has been com-

pared with that of other varieties at Beltsville, Md. (Table 1) and at Carbondale, Ill. (Table 2).

Sunrise ripens as early as Earlidawn at Beltsville, with a similar concentration of ripe fruit. At Carbondale, the fruit ripens somewhat later than Earlidawn and is about the same season as Dixieland. In areas where late spring frosts occur, the blossoms are subject to damage unless protected by irrigation during frost periods.

Sunrise, with its early, firm, uniform-colored fruit, is recommended for trial in areas where red stele and Verticillium wilt occur.

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According to U. S. D. A. statistics, the production of the five major apple clones in the U. S. in 1964 was as follows:

Delicious:	34	million	bu.
McIntosh:	18	"	"
Golden Delicious:	11	"	"
Rome Beauty:			
almost	11	"	"
Jonathan:	10	"	"

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Table 1. Mean yield, size of fruit, and season of ripening of Sunrise in comparison with other strawberry varieties and selections at Beltsville, Maryland, in 1961, 1962, and 1964.

Variety or selection	1961 Yield ¹ No.	Size ² No.	Season ³ %	Variety or selection	1962 Yield ¹ No.	Size ² No.	Season ³ %	Variety or selection	1964 Yield ¹ No.	Size ² No.	Season ³ %
Armores	17,314	275	18	Pocahontas	17,424	216	22	Catskill	21,686	225	0
Md-US 2664	16,384	286	33	Armores	17,341	269	1	Fulton	20,261	201	0
Catskill	15,870	259	8	Earlidawn	16,179	235	59	NC US 1768	19,946	238	0
Earlidawn	15,888	234	53	Md-US 2700	15,266	244	19	Earlidawn	19,183	182	34
Surecrop	14,641	239	43	Catskill	15,266	224	14	Pocahontas	18,685	224	6
NC US 1768	14,625	260	5	Md-US 2596	14,935	266	15	Md-US 3068	18,685	201	10
Md-US 2700	14,442	244	27	NC US 1768	14,769	239	0	Surecrop	17,424	225	12
Midway	14,193	236	10	Surecrop	14,603	224	26	Armores	17,424	243	1
Vesper	13,994	346	0	Midway	13,856	192	9	Md-US 2700	15,914	196	19
Sunrise	13,595	241	56	Tenn. Beauty	13,690	162	8	Md-US 2929	15,614	201	24
Jerseybelle	13,313	310	1	Vesper	13,109	275	0	Jerseybelle	15,549	255	0
Pocahontas	12,981	235	32	Jerseybelle	13,026	270	0	Midway	15,101	210	0
Md-US 2590	12,898	236	46	Dixieland ⁴	12,943	246	43	Sunrise	14,287	214	39
Md-US 2596	12,882	304	22	Sunrise	11,948	256	56	Md-US 2830	14,072	219	28
Tenn. Beauty	12,101	184	8	Md-US 2289	11,948	244	42	Md-US 2289	13,956	230	20
Md-US 2632	11,769	232	38	Md-US 2593	11,948	254	38	Md-US 2593	13,508	235	16
Md-US 2650	11,570	268	13	Md-US 2650	11,118	211	0	Dixieland ⁴	12,446	169	19
Robinson	11,437	328	3	Earlibelle	10,869	249	24	Md-US 2927	11,782	277	11
Redstar	8,848	240	0	Redstar	10,620	188	0	Redstar	11,450	188	0
Dixieland ⁴	8,084	251	30	NC US 2480	7,467	228	36	Md-US 2713	11,135	168	55
LSD 1%	2,980	45			3,362	44			3,518	30	

¹Yield is in quarts per acre.

²Size is number of grams for 25 berries.

³Season is the percent of the total crop of each variety that was harvested in the first 2 pickings of the season.

⁴Plants all had variegation.

Rows planted 3½ feet apart, plants 2 feet apart in row.

Table 2. Mean yield, size of fruit and cullage for Sunrise in comparison with other strawberry varieties and selections at Carbondale, Illinois, for first, second, and third year beds, 1960-1964.

A. First trial (1960-1962)

First year (1960)				Second year (1961)				Third year (1962)			
Variety	Yield ¹ No.	Size ² No.	Culls ³ %	Variety	Yield ¹ No.	Size ² No.	Culls ³ %	Variety	Yield ¹ No.	Size ² No.	Culls ³ %
NC US 1759	9,589	43	12.1		18,939	43	19.8		10,757	80	6.8
Armored	8,984	42	17.4		18,378	54	16.5		10,697	91	12.9
Surecrop	8,824	55	15.2		17,239	61	27.9		10,312	63	8.4
Pocahontas	8,584	53	14.6		14,519	55	18.4		9,771	57	13.0
Sunrise	8,482	51	8.3		14,027	52	56.1		9,423	76	12.6
Earlidawn	7,354	45	26.6		11,776	66	22.7		9,267	80	10.7
Dixieland	6,557	50	12.3		11,354	60	13.3		8,527	68	7.3
Vermilion	6,225	57	12.7		10,894	66	48.7		8,432	95	16.6
Tenn. Beauty	6,037	50	13.7		10,766	64	42.7		7,719	75	13.1
Blakemore	5,765	65	17.7		10,739	66	19.9		7,164	93	28.3
Midway	5,648	50	20.5		7,998	65	10.6		6,689	75	13.3
Redglow	5,460	51	19.6		7,243	61	35.1		6,408	81	17.5
Tenn. Shipper	5,000	56	12.6		7,168	70	14.4		5,874	85	9.1

B. Second trial (1962-1964)

First year (1962)				Second year (1963)				Third year (1964)			
Variety	Yield ¹ No.	Size ² No.	Culls ³ %	Variety	Yield ¹ No.	Size ² No.	Culls ³ %	Variety	Yield ¹ No.	Size ² No.	Culls ³ %
Sunrise	11,383	66	9.3		15,051	67	15.5	Sunrise	11,401	81	19.7
Pocahontas	10,216	59	11.5		12,905	72	14.3	Md-US 2700	10,601	78	27.3
Md-US 2700	9,879	53	13.0		12,853	50	15.9	Md-US 2737	10,319	77	20.6
Earlidawn	8,520	73	9.2		12,646	47	18.0	Md-US 2734	9,904	91	27.8
Md-US 2666	8,333	48	11.7		10,922	77	14.5	Md-US 2811	9,537	57	26.7
Md-US 2811	7,970	39	11.8		10,345	69	22.3	Md-US 2666	8,845	60	20.8
Md-US 2734	7,130	76	16.5		9,223	65	16.1	Earlidawn	8,482	95	24.5
Tenn Beauty	6,809	69	12.6		9,080	71	20.2	Tenn. Beauty	6,837	80	21.1
Md-US 2737	5,559	62	10.7		8,420	73	13.8	Pocahontas	6,793	77	27.6

¹Yield is in quarts per acre.

²Size is number of berries per pound.

³Culls is percent of small, or deformed, or rotten berries.

Rows planted 4 feet apart, plants 2 feet apart in row.