

quince rootstocks including a series of selections from Poland, S-1, S-2 and S-3; from France, BAC-29 and several hardy quinces from the U.S.S.R.

Crosses of several dwarf pears found in our fire blight breeding program and 'Old Home' also have been made to provide the basis for further selection within *Pyrus*. These seedlings will be selected for ease of rooting, ability to dwarf a scion cultivar, cold hardiness and disease resistance. Rootstock development is a long-term program, but may provide

a means of growing early-bearing, compact trees which will be needed for high density pear orchards of the future.

Literature Cited

1. Stadler, J. D., and E. Allison. 1972. Rootstocks for pears, selected by Professor A. F. de Wet. *The Deciduous Fruit Grower*, p. 270-274.
2. Stebbins, R. L., M. N. Westwood and P. B. Lombard. 1972. Pear Rootstocks for Oregon, 2 p. *Oregon State University Ext. Service*.
3. Westwood, M. N., and P. B. Lombard. 1966. Pear Rootstocks. *Ann. Rept. Oregon Hort. Soc.* 58:61-68.

'Earliglow', a New Early Ripening Strawberry¹

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'Earliglow' is a new strawberry cultivar released by the U.S. Department of Agriculture and the Maryland Agricultural Experiment Station in January 1975 from the cooperative strawberry breeding program. 'Earliglow,' tested as MdUS 3861, originated from a cross of MdUS 2359 ('Fairland' x 'Midland') x MdUS 2713 ('Redglow' x 'Surecrop') made in 1964. Seedlings of this progeny were screened for resistance to red stele root rot in a greenhouse in the winter

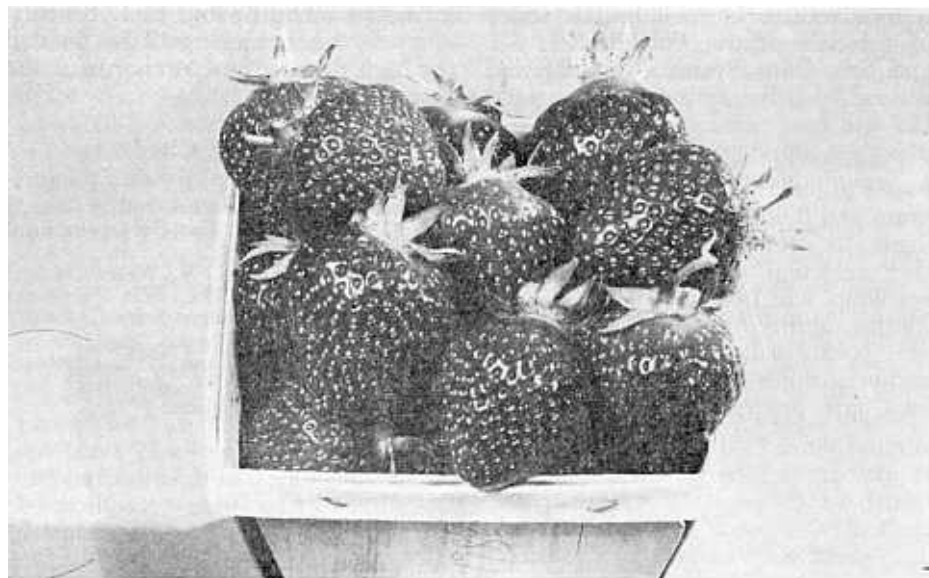
of 1964-65, the resistant seedlings grown at Salisbury, Maryland, in 1965, and MdUS 3861 was selected in the spring of 1966.

'Earliglow' ripens very early, either with 'Earlidawn' or 2 to 3 days later. Its berries are medium to large, attractive, have a uniformly symmetrical conic shape, and have firm flesh and firm, glossy, deep red surfaces. The rich uniform red flesh color and sweet flavor are very good in frozen pack.

¹Cooperative investigations of the Fruit Laboratory, Agricultural Research Service, USDA, Beltsville, Maryland, and the Department of Horticulture, Maryland Agricultural Experiment Station, College Park, Maryland.

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'Earliglow'

Table 1. Production of runners of strawberry cultivars, Beltsville, Maryland.

Cultivar	Total runners ¹ (no.)	Rooted runners		Range of runners within plots (no. rooted)
		(no.)	(%)	
Earliglow	237.0 a ²	120.2 a	50.9	97 to 136
Redchief	168.6 b	90.4 b	53.6	67 to 129
Guardian	150.4 b	79.0 b	52.5	65 to 100
Raritan	138.0 b	92.6 b	67.1	61 to 108
Surecrop	134.8 b	79.8 b	59.2	68 to 87
Darrow	133.8 b	81.6 b	61.0	59 to 114
Earlidawn	64.4 c	49.8 c	77.3	40 to 59

¹Runners were counted October 7, 1974, on 10-ft. plots set with five mother plants per plot on April 23, 1974: five replications.

²Duncan's multiple-range test, values followed by the same letters do not differ significantly at the 5% level.

Plants of 'Earliglow' are vigorous and produce many runners (Table 1). They are resistant to five races of red stele root rot and to *Verticillium* wilt. Leaves are moderately resistant to leaf scorch and leaf spot, but they are only partially resistant to mildew. Plants have been productive, (Table 2), and the fruit has been attractive in narrow matted beds in Maryland.

Plants have been reported to be productive in New Jersey, Pennsylvania, Ohio, Michigan, and Missouri³.

Because of its prolific runner production, beds of 'Earliglow' probably will require more thinning than most cultivars for satisfactory fruit size.

'Earliglow' characteristics are compared with other selected cultivars in Table 3.

Table 2. Yields, sizes of fruit, and seasons of ripening of 'Earliglow' and other strawberry cultivars in Maryland in 1973 and 1974.

Cultivar	Yield	1973	Season	Yield	1974	Season
		Size			Size	
Beltsville						
	(lb/a)	g/fruit		(lb/a)	g/fruit	
Darrow	27,157 a ¹	11.1 ijkl	VE ²	26,796 abcd	10.0 efgh	VE
Delite	26,410 a	12.6 fghi	L	21,258 def	13.1 ed	L
Raritan	26,012 ab	10.9 ijkl	M	29,285 abc	12.7 d	M
Catskill	25,452 abc	11.8 ghijk	M	33,032 a	10.0 efgh	M
Earliglow	22,291 bcd	10.3 jklmn	VE	26,298 bcd	10.0 efgh	VE
Holiday	21,631 cd	11.3 hijkl	E	18,881 efg	12.8 d	E
Earlidawn	21,519 cd	8.7 n	VE	23,137 cde	8.4 i	VE
Guardian	20,611 d	13.5 def	L	20,611 defg	13.3 cd	L
Redchief	20,548 d	10.2 jklmn	M	24,880 cde	10.5 efg	M
Surecrop	18,520 d	10.6 jklm	E	19,839 defg	9.3 efghi	E
MdUS 4089	— ³	—	—	23,860 cde	18.6 a	L
Cheston-On-Wye						
Darrow	14,849 a	13.7 de	VE	24,145 b	12.8 d	VE
Earliglow	13,550 a	12.6 e	VE	26,261 ab	12.2 d	VE
SI US 253	9,444 b	19.0 a	M	—	—	M
MdUS 3848	8,472 bc	18.5 a	M	17,798 c	17.5 b	M
Surecrop	8,237 bc	13.1 de	E	23,523 b	12.7 d	E
MdUS 3771	7,693 bc	15.0 cd	VE	—	—	—
MdUS 3364	6,578 bc	15.5 bc	E	—	—	—
MdUS 3694	6,226 c	16.6	M	—	—	—
Guardian ⁴	4,684	18.0	L	19,416 c	16.1 bc	L
MdUS 3293 ⁴	4,400	15.2	L	—	—	—
MdUS 4258	—	—	—	28,377 a	11.1 d	VE
MdUS 4236	—	—	—	24,768 ab	12.2 d	M
MdUS 4089	—	—	—	19,291 c	21.8 a	L
MdUS 3839	—	—	—	17,798 c	14.7 c	VE
MdUS 3968	—	—	—	16,927 c	14.8 c	M

¹By Duncan's multiple-range test, values followed by the same letter do not differ significantly at the 5% level.

²Season of ripening: VE = very early; E = early; M = midseason; L = late.

³— = not tested.

⁴Final yield was not obtained because of wet weather; neither Guardian nor MdUS 3293 was included in analysis.

Table 3. Ratings¹ of characteristics of 'Earliglow' and other selected strawberry cultivars.

Cultivars	Season ²	Fruit size	Fruit firmness	Symmetry	Color	Gloss	Flavor	Prod.	Red stele	Vert. wilt
Earliglow	VE	7	8	10	10	10	8	8	R	R
Darrow	VE	8	8	6	8	8	7	8	R	PR
Earlidawn	VE	6	6	7	9	8	6	8	S	S
Guardian	L	9	7	6	8	9	7	7	R	R
Holiday	E	8	10	9	7	9	7	6	S	PR
Midway	L	7	7	8	7	7	7	8	R	S
Raritan	M	9	8	8	8	8	7	9	S	S
Redchief	M	7	8	8	8	8	7	7	R	R
Surecrop	E	7	7	7	7	7	7	6	R	R

¹Cultivars were rated on a scale of 1 to 10, with 10 the most desirable characteristic and 6 the lowest acceptable value for commercial use; R = resistant; PR = partly resistant; S = susceptible.

²Season of ripening: VE = very early; E = early; M = midseason; L = late.