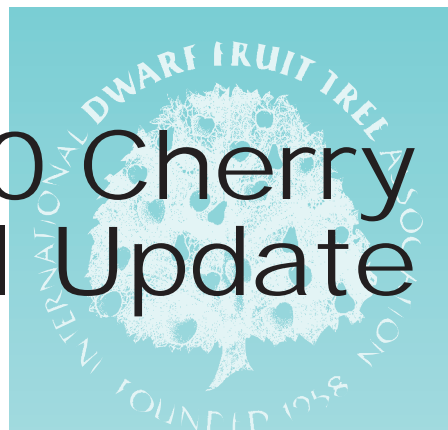


1998 NC-140 Cherry Rootstock Trial Update



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New rootstocks are needed to keep the cherry industries in North America competitive. For sweet cherry, we still need dwarfing rootstocks that can reduce the size of sweet cherry trees by 20-70% and produce large, high quality fruit. A smaller canopied tree can reduce expensive harvest labor costs. A smaller tree can improve pest management practice efficiencies and facilitate new strategies in avoiding fruit cracking. The standard rootstock for sour cherry is mahaleb. This rootstock is productive, as demonstrated in the 1987 NC-140 cherry rootstock trial. However, we still need a stock that can be longer-lived where soil maladies such as Armillaria and Phytophthora root rot exist and where soils are heavy or shallow. The NC-140 Regional Rootstock Committee has served well in developing uniform trials to evaluate new elite rootstocks for stone and pome fruit. The 1987 NC-140 rootstock trial located in 16 sites indicated there are several promising rootstocks that could improve cherry production (Perry et al., 1996). The members of the NC-140 cherry rootstock subcommittee organized a follow-up trial and established it among cooperator sites in 1998. Individual cooperators obtained financial support from local sources, the International Dwarf Fruit Tree Association (IDFTA) and Gisela Inc.

a full complement of rootstock treatments. Some sites received only a partial planting and are so designated. F. Kappel, BC, and G. Lang, WA, facilitated the procurement of propagules and monitored the propagation which was done by Meadow Lake Nursery, McMinnville, OR (all treatments except P.50), and ProTree Nursery, Brentwood, CA (P.50). Sites are testing from 8 to 19 rootstocks each (Table 2). The trees were arranged in randomized complete block designs with single tree plots and generally 8 replications per rootstock. There are 3 separate trials,

Plots were established at 11 states and provinces in the spring of 1998.

TABLE 1

Cooperators and rootstock research sites for the 1998 NC-140 Cherry rootstock trials.

State/Province	Cooperator/Institution	Site
Sweet Cherry – Bing		
British Columbia	F. Kappel; Ag. Canada	Summerland
California	S. Southwick; UC-Davis	Winters
Colorado	A. Gaus; Colorado State University	Grand Junction
Oregon	T. Facteau; OSU, Hood River, &	The Dalles and
Corvallis		
Utah	A. Azarenko; OSU, Corvallis	
Washington	L. Anderson; Utah State University G. Lang; Washington State University	Farmington Prosser
Hedelfingen		
Michigan	R. Perry; Michigan State University	Traverse City
New York	R. Anderson; NY Ag. Exp. Station	Geneva
Ontario	B. Lay & F. Eady; Hort. Res. Inst.	Vineland
Pennsylvania	R. Crassweller; Penn State University	Erie County
Montmorency Sour Cherry		
Michigan	R. Perry; Michigan State University	Traverse City
New York	R. Anderson; NY Ag. Exp. Station	Geneva
Ontario	B. Lay & F. Eady; Hort. Res. Inst.	Vineland
Pennsylvania	G. Greene; Penn State University	Biglerville
Utah	L. Anderson; Utah State University	Farmington
Wisconsin	T. Roper; University of Wisconsin	Sturgeon Bay

MATERIALS AND METHODS

Plots were established at 11 states and provinces in the spring of 1998 (Table 1). Most sites were assigned enough trees for

according to scion cultivars: 1) Bing in the west, 2) Hedelfingen in the east and 3) Montmorency sour cherry. Pollenizers (Van and Lapins in Bing trials and Blackgold, Vandalay and Kristin for Hedelfingen) were randomly established in the trials. All trees were of relatively small caliper, which required them all to be pruned to a whip and headed at 80 cm (32 inches). Cooperators are following a standard central leader protocol as devised by the NC-140 cherry subcommittee. All other management practices are being followed according to local recommendations. Data for the trials will be submitted by cooperators to be processed and summarized by Kappel, BC, for the Bing trial and by Perry, MI, for the Hedelfingen and Montmorency trials. Standard data submitted will include the following annual measurements: survival, trunk caliper, yield per tree, average fruit size, fruit to tree size ratio (yield efficiency), bloom density (years 2 and 3) and canopy volume (years 5 and 10).

REFERENCE

Perry, R., G. Lang, R. Andersen, L. Anderson, A. Azarenko, T. Facticeau, D. Ferree, A. Gaus, F. Kappel, F. Morrison, C. Rom, T. Roper, S. Southwick, G. Tehrani and C. Walsh. 1996. Performance of the NC-140 Cherry rootstock trials in North America. Compact Fruit Tree 29:37-56.

TABLE 2

Rootstock treatments established in the 1998 NC-140 cherry trial.

Rootstocks	Scion		
	Bing	Hedelfingen	Montmorency
CT.2753		y	
CT.500		y	
Edabriz	x	x	x
Erdi V		y	
Gi.195/20	x	x	x
Gi.209/1	x	x	x
Gi.318/17	x		
Gi.473/10	x		
Gi.5	x	x	x
Gi.6	x	x	x
Gi.7	x	x	x
Mah	x	x	x
Mazz	x	x	
MXM 2		x	
MXM 60		x	
P.50	y	y	
W.10	x	x	x
W.13	x	x	x
W.53	x	x	x
W.72	x	x	x
W.154	x		
W.158	x	x	x

y = established in some locations.