

Winter Hardiness of Sweet Cherry Varieties in the Winter of 1964-1965

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The December freeze that caused considerable damage to peach, apricot, apple and pear trees in the B. C. Interior, affected mostly the old cherry trees. In old cherries, trunks and main limbs that had not fully recovered from injuries caused by the winters of 1949-50 and 1955-56, were killed in 1964-65. This is particularly true of the Bing variety.

In young cherry trees the injury in 1964-65 was mostly confined to the killing of leaf buds. The differences

between varieties in the extent of leaf bud killing was considerable and ranged from none to near complete. In the latter group, mostly or only the buds at the shoot tip survived. It was found earlier, in artificial freezing tests, that close correlation existed between leaf bud hardiness and overall hardiness of trees. Therefore, it was considered desirable to record the hardiness of leaf buds as a measure of varietal relative hardiness. The data for some varieties of the Summerland collection is given below.

Table 1. Relative hardiness of leaf buds of cherry varieties, evaluated following the winter of 1964-65 at Summerland, B. C., Canada.

Hardy	Moder. tender	Tender	Very tender
	Ahlers Späte	Big. Moreau	Bing
	Allmans Svart	Dönnisens Gelbe	Black Russian
	Big. de Schrecken	Gold	Burbank
<u>Moder. hardy</u>	Black Tartarian	Governor Wood	Chinook
Black Eagle	Compact Lambert	Harms Sämling	Corum
Sämling v. Werth	Grosse Schwarze	Holmabar	Deacon
Schmahlfelds	Knorpel	Knights Early Bl.	Early Rivers
Schwarze	Hedelfingen	Lambert	Kassins Early
Türkime	Hudson	Mac Mar	Merton Bigarreau
	Ida	Nero grosse di	Rainier
	Jaboulay	Pimento	Ransom
	Knauft	Ochsenherzkirsche	Regina
	Lucienskirsche	Persian	Rival
	Mierlose Zwarte	R. Mohl	Rons
	Sekunda	Roundel	Sanguinetti
	Starks Hardy	Royal Ann	Sue
	Giant	Sam	Ulster
	Steckmans Bunte	Schmidt	Venus
	St. Veiter	Schneiders Späte	Vernon
	Pelzkirsche	Knorpel	Victor
	Torleivsbar	Seneca	Vista
	Von Bremens Soure	Sigrid	Werdersche
		Star	Markt.
		Tiroler Schwarze	
		Knorpel	
		Van	
		Vic	
		Yellow Glass	
		Zum Felde Frühe	

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Glenn Dale 6 was outstanding in leaf bud hardiness. This selection was also found superior in hardiness to all sweet cherry varieties in an artificial freezing test which comprised 94 sweet cherry varieties and selections. Glenn Dale 6 is a "wild" cherry with small fruit, but could be considered as a hardy framebuilder for sweet cherries.

The varieties classified as moderately hardy in Table 1 were repre-

sented by young trees in our plantings and their fruit has not been sufficiently evaluated at Summerland.

Of the varieties grown commercially in B. C., Lambert, Royal Ann, Sam and Van proved to be hardier than Bing and Deacon. The new Summerland introduction, Compact Lambert, was hardier both in leaf and fruit buds than Lambert, although less hardy in bark and fruit spurs.

Comparative Resistance to Verticillium Wilt in the Strawberry

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Verticillium wilt is becoming an increasingly important disease in the strawberry. Several promising varieties released in recent years appear very susceptible to this disease. Serious outbreaks of the disease occurred in replicated variety trials planted at Lafayette, Indiana in both 1957 and 1964. A relative rating of resistance for each variety or selection was determined from the percentage of dead plants of the thirty mother plants set for each trial. These data were combined with a similar evaluation made in New Jersey** from 48 plants and are presented in Table 1. Only the New Jersey data involving varieties planted at Lafayette in either of the two years are included. When a variety was present in more than one trial, mean values were used in the ranking of varieties. However, the mean percentage of dead plants was lower in the Lafayette than in the New Jersey test.