

Bud Hardiness of Peach Varieties in Indiana

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Lafayette, Indiana

In 1953, a peach variety test at Lafayette, Indiana was established by the late C. L. Burkholder, in response to requests to find a peach variety sufficiently hardy to be planted on less favored peach sites for local marketing. The list of varieties planted is shown in Table 1. It included such known hardy peaches as Veteran, Rochester, the "Haven" peaches, as well as several varieties about which it was desirable to gain more information.

Table 1. List of Peach Varieties under Test in Lafayette, Indiana.

Belle of Georgia	New Cheer
Blake	Polly
Clora	Radiance
Eclipse	Red Gold
Erly Red Fre	Redhaven
Fairhaven	Redskin
Golden Jubilee	Richaven ¹
Halehaven	Rochester
Herb Hale	So-Good
Honeydew Hale	R. L. Stoner #798
Icy's Delight	Sunhaven ¹
Late-rose	Triogem
Lizzie	Veteran

¹Planted 1957

Of interest is the cropping record of this block of trees. In 1955, the temperature dropped to -17 degrees F. on January 28th, which eliminated the crop on all varieties. The temperature dropped to -4° on December 16, 1955 and to a -10° on January 23rd, 1956, but all varieties produced peaches. January 14, 1957 brought a -15° to Lafayette followed on January 17 by a -13° . This ended the 1957 crop. The 1958 crop saw -6° and -4° on February 7 and 18 but all varieties bore fruit.

For the 1959 crop, temperatures started off with a -12° and -13° on December 10 and 11, followed by a -15° and -11° on January 5th and 6th, resulting in considerable tree injury as well as killing of all flower buds. Prospects for a 1960 crop were good until temperatures dropped to -14° on March 1 and to -15° on March 6. Only a few buds remain alive on Radiance, Polly, Halehaven and Veteran while the buds on the others are essentially all killed.

Such results would indicate that as far as winter bud hardiness is concerned in peaches, a minus 10 degrees F. is very close to the minimum for bud survival for most varieties. While some varieties may withstand a few degrees lower temperature, a question must be raised as to the extent of the crop which will remain after such temperatures, even for the so-called "hardy" varieties. In essence then, the differences between varieties are relative only, and nothing will quite take the place of a good peach site.

Table 2. Winter temperatures and peach crop record at Lafayette, Indiana.

Crop Year	Minimum Winter Temperature	Date	Crop
1955	-17	1/28/55	none
1956	-10	1/23/56	full
1957	-15	1/14/57	none
1958	-6	2/ 7/58	$\frac{3}{4}$ crop
1959	-15	1/ 5/59	none
1960	-15	3/ 6/60	trace

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