

## *Connecticut Agricultural Experiment Station*

NEW HAVEN, CONN.

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## WINTER CONDITION OF APPLE AND PEACH BUDS

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The possibility of winter injury to fruit buds, particularly of peaches, was expressed to the Station authorities by certain fruit growers at a recent conference. It was thought that this injury might have resulted not so much from excessive cold, since the temperature has been very low this winter in very few places in the State, but as the after-effects of the unusually dry summer and fall. The Station has been looking into this matter, both through the examination of apple and peach buds in the general region of the Station by Mr. Stoddard and Dr. Garman, and also through the cooperation of various growers over the State, who have kindly made an examination of their orchards at its request. The results of these examinations are set forth in detail here.

### APPLES

The observers are all agreed that there has been no special winter injury to apple fruit buds so far as they have been able to ascertain. It is more difficult, however, to get exact data at this time of year with the apples than with the peaches, as the buds are smaller. Some think that possibly the buds are smaller than usual, due to the dry summer. Where there was a heavy crop of apples last year, especially with certain varieties, as Baldwin, there is a light set this year which, however, appears all right as far as it goes. Three growers complained of partridges or pheasants eating off the buds of certain varieties near the woodlands.

### PEACHES.

There is undoubtedly considerable injury to the peach buds. This is most pronounced in the northern half of the State, as might be expected, and is least apparent near the Sound. In some places elevation seems to have had an effect, as the trees on the higher hills or slopes are more injured than those lower down. The yellow peaches are, as usual, injured more than the white. Those most seriously injured seem to be the Late Crawford, Hale

and Elberta. Some growers, however, report very little injury even to these, so that if conditions are very favorable at pollinization time and later, there will be a small to fair crop in most orchards and a good crop in a few. With most of the other varieties the outlook at present is for a fair to a good crop. We estimate that there can be a 25% winter injury of peach fruit buds and still a good crop result. However, if in addition to this, later conditions are very unfavorable, this injury becomes more important.

As some growers may be interested in the results obtained on different varieties or in different parts of the State, we append the data obtained by varieties arranged alphabetically.

*Arp.* 5-15% dead, Experiment Station Farm, Mt. Carmel, Stoddard.

*Belle.* 60% dead, Washington Depot, Hallock; 37%, Storrs, Hollister; 30-40%, East Longmeadow, Bilton; 25% Greenwich, Drew; 25%, Deep River, Spicer; 20%, Seymour, Coleman; 5-20%, Wallingford (Barnes), Stoddard.

*Carman.* 65% dead, Washington Depot, Hallock; 30-40%, East Longmeadow, Bilton; 30%, Farmington (Root), Stoddard; 15%, Seymour, Coleman; 5-10%, Southington (Rogers), Stoddard; 8%, Storrs, Hollister.

*Champion.* 70% dead, Greenwich, Drew; 50%, Washington Depot, Hallock; 30-40%, East Longmeadow, Bilton; 34%, Storrs, Hollister; 5-20%, Wallingford (MacDonald), Stoddard; 10% Seymour, Coleman; 5-15%, Mt. Carmel, Station Farm, Stoddard; 5-15%, Milford (Platt), Stoddard.

*Elberta.* 98% dead, East Longmeadow, Bilton; 95%, Washington Depot, Hallock; 75%, Seymour, Coleman; 70% high elevation, 30% lower down, 20% low elevation elsewhere, Middlefield, Lyman; 62%, Storrs, Hollister; 50-75% Southington (Rogers), Stoddard; 50%, Greenwich, Drew; 30-50%, Farmington (Root), Stoddard; 35%, Cannondale, Warncke; 25%, Deep River, Spicer; 15%, Wallingford, Barnes; 5-20%, Wallingford (MacDonald), Stoddard; 5-15%, Mt. Carmel, Station Farm, Stoddard; 5-15%, Milford (Platt), Stoddard; 5%, Branford (Cook), Stoddard.

*Fox.* 30-40% dead, East Longmeadow, Bilton.

*Greensboro.* 30-40% dead, East Longmeadow, Bilton; 25% Deep River, Spicer; 17%, Storrs, Hollister.

*Hale.* 75% dead, Storrs, Hollister; 50-75%, Southington (Rogers), Stoddard; 56%, Seymour, Coleman; 45%, Greenwich, Drew; 5-15%, Mt. Carmel, Station Farm, Stoddard.

*Hiley.* 10% dead, Greenwich, Drew.

*June Elberta.* 31% dead, Storrs, Hollister.

*Late Crawford.* 75% dead, Greenwich, Drew; 60-75%, old trees, 35-50%, young trees, Southington, Rogers; 56%, Storrs, Hollister.

*Lola.* 5-15% dead, Mt. Carmel, Station Farm, Stoddard.

*Mayflower.* 5-15% dead, Mt. Carmel, Station Farm, Stoddard.

*Mountain Rose.* 71% dead, Storrs, Hollister.

*Nectar.* 54% dead, Storrs, Hollister; 30-40%, East Longmeadow, Bilton.

*Rochester.* 5-10% dead, Southington (Rogers), Stoddard.

*Stump.* 25% dead, Deep River, Spicer; 15%, Wallingford, Barnes.

*Slappay.* 54% dead, Storrs, Hollister.

*Waddell.* 27% dead, Storrs, Hollister; 25%, Deep River, Spicer.

*Yellow St. John.* 64% dead, Storrs, Hollister.

*General Data.* 50% dead, Norwich, Browning; 40-50% dead on old trees of white varieties, little injury on young trees of white varieties, Southington, Rogers; 50% dead on yellow varieties but only 25% on white, Farmington, Root; 10% dead on white varieties, Branford, Stoddard; a little injury to Crawford but none to Elberta, Meriden, Ives; Elberta hurt a little but Hiley and Belle of Georgia with heavy set, Hazardville, Billings.