

# FOREST INSECT AND DISEASE CONDITIONS IN VERMONT

CALENDAR YEAR 1999



1999 Drought Impact: Hemlock Borer Galleries

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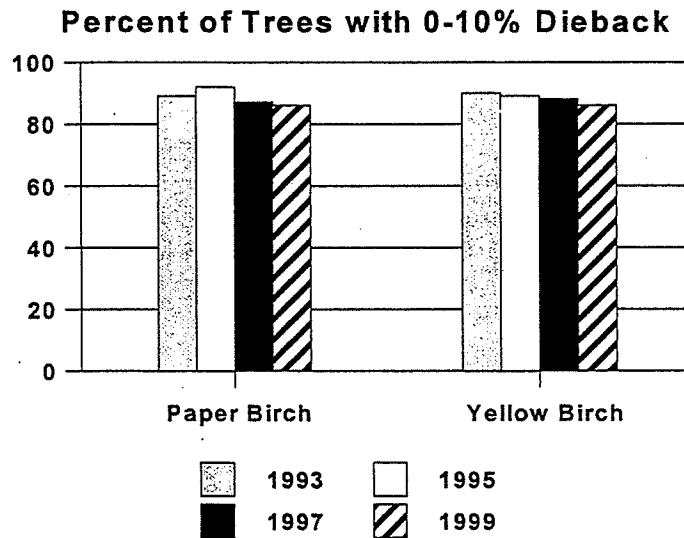
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## DIEBACKS, DECLINES AND ENVIRONMENTAL DISEASES

**Birch Decline** occurred in scattered locations, and was mapped in Addison (68 acres) and Orange (26 acres) counties during aerial survey. Since last evaluated in 1997, birch dieback in monitoring plots improved or stayed the same in seven of the nine stands surveyed. Although the general trend was towards improvement, the statewide average remains similar to 1997 (Figure 27), because of a substantial dieback from ice damage, and impacts from logging, in the Barnard plot. Birch decline is generally expected to increase over the next few years, since white birch is sensitive to drought.



**Figure 27.** Average percent of live birch trees ( $\geq 5$ " DBH) with  $\leq 10\%$  dieback in 9 birch monitoring plots 1993-1999.

**Drought Conditions** led to widespread leaf scorch, yellowing and browning on hardwoods. Some symptoms were visible by late June, but most became more severe and widespread as the season progressed. Foliar symptoms attributed to drought were mapped on 84,727 acres (Figure 28, Table 14).