

EARLY DEFOLIATION OF TREES AND SHRUBS

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Early defoliation on apple. A. Hazelrigg

A lot of Vermonters are noticing their crabapples and apples (*Malus* spp.) in addition to many other deciduous trees, have dropped many of their leaves well before the first frost. This has been a common occurrence for the past few years in many parts of the state depending on the microclimate of the area. The cause is typically stress-related, and the good news is these early defoliated trees usually look fine the next spring.

A lot of trees' emerging leaves and blossoms were damaged from the low temperatures in the third week of May. Although the trees have recovered just fine and new leaves replaced those that were damaged, the energy required to do that is a stress on the tree. Vermont also experienced a very rainy summer. *Malus* spp. are susceptible to a wide variety of foliar fungal diseases and all these fungi like wet weather. Diseased leaves tend to drop earlier in the season

than healthy leaves and these fungal leafspot diseases are a big contributing factor to the early leaf drop. Apple scab is the primary disease that will infect fruit and leaves causing olive brown spots on the foliage. Also contributing to the diseased leaves is cedar apple rust, a fungus that requires both a *Malus* host and a juniper host to complete its lifecycle. This rust disease causes bright yellow leaf spots on the apple or crabapple host.

If you notice early leaf drop in your apples or crabs, check to make sure there is a good bud set on the tree for next year. These are the dormant buds that will start to grow next May. Also, scratch the bark lightly to make sure you see green healthy tissue under the bark. Both indicate the tree is ready for next spring and is still alive in spite of the leaf drop. To improve the vigor of the tree and to minimize fungal diseases next year, rake and destroy fallen leaves this autumn. If raking is too much work, mow the leaves several times to encourage them to break down quicker. Prune the tree this winter when it is dormant to open it up to air and light.



Terminal and axillary bud in crabapple in September. A. Hazelrigg

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