

LEAF NUTRITIONAL QUALITY AND GROWTH OF THE MOURNING CLOAK BUTTERFLY, *NYMPHALIS ANTIOPA*

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Effects of food quality on larval butterfly growth were examined. Since food quality for caterpillars affects their growth and development time, I predicted that larvae eating young leaves would weigh more and grow faster than caterpillars eating mature leaves. Young leaves are typically more nutritious since they often contain more nitrogen and water, and less fiber, than mature leaves. To test that prediction, Mourning Cloak butterfly larvae (*Nymphalis antiopa*), were reared on Chinese elm (*Ulmus parvifolia*). Larvae from several families were fed either young or mature leaves until they pupated. Larvae eating young leaves weighed more and pupated earlier than those eating mature leaves. Furthermore, larvae preferred young leaves in choice tests, and leaf chemistry supported predictions about nutritional quality.