

Section 6. Biology/Phenology

SUITABILITY OF WEEDS AND CROPS AS HOSTS FOR LACANOBIA SUBJUNCTA

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The *Lacanobia* fruitworm has recently become a serious pest of apple in eastern Washington and adjacent Oregon and was only recently recognized as the cause of considerable damage to foliage and fruit attributed to cutworms (Landolt 1998). Because this insect is highly mobile, the reproduction of *L. subjuncta* on various plants and crops regionally may be of some relevance to its pest status on apple. Therefore, we sought to learn more about the suitability of common eastern Washington plants as hosts for the larvae of *Lacanobia subjuncta*. Preliminary information was obtained by Landolt (1998) on larval development on several weeds, but the success rate of larvae in that test was consistently low, possibly due to cannibalism.

Fifteen neonate *L. subjuncta* larvae were fed the foliage of 18 plant species, including 10 weeds and 8 crops. Additionally, leaves of 5 varieties of apple were directly compared as host material for larvae. Larvae were held individually in paper cups and were cared for daily until entering soil for pupation. For each larvae, data was obtained for survival, development time (egg hatch to soil entry), and pupal weight.

Complete development from egg to adult occurred with *L. subjuncta* on 9 of 10 weeds and 7 of 8 crops. No larvae survived on the foliage of sunflower or on the leaves of apricot. Best development occurred on the crops potato and apple, and on the weeds bindweed, dandelion, and mallow. In the comparison of apple varieties, best development occurred on Red Delicious apple foliage. However, *L. subjuncta* development on foliage of apple was considerably poorer in the second test in July compared to the earlier test (Fuji only) in May. This raises the possibility that there is considerable variance in the suitability of apple foliage as food for *L. subjuncta* larvae, possibly due to changes in leaf chemistry with age and accumulated injuries.

Other plants supporting complete development of *L. subjuncta* were hoary cress, spiny sowthistle, Canada thistle, lambsquarter, pigweed, kochia, pear, cherry, alfalfa, dry peas and succulent peas.

References

Landolt, P. J. 1998. *Lacanobia subjuncta* (Lepidoptera: Noctuidae) on tree fruits in the Pacific Northwest. *Pan-Pacific Entomol.* 74: 32-38.