

Section VII
Forage & Seed Insects

SEASONAL ACTIVITY AND EFFECT OF *SCAPTOMYZA APICALIS* HARDY ON MEADOWFOAM, A NEW SEED CROP IN THE WILLAMETTE VALLEY, OR.

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Five commercial meadowfoam fields were selected to study the phenology of *Scaptomyza apicalis* Hardy and its effect on seed yield. Flight activity and larval density were monitored from March through July 1997 with yellow sticky traps and Berlese funnel extractions, respectively. Dimethoate was applied in late March to replicated plots in each of five commercial fields to determine what effect control of *S. apicalis* would have on plant growth, development and seed yield. Results are summarized as follows: Flight activities were similar among fields. Two definite peaks of varying magnitudes were detected in late April and again in late May and early June. Numbers of flies caught declined sharply in June. No flies were trapped in any of the five fields after mid-July. Larval phenology was similar and bimodal over the five fields. Peak levels of infestation varied from 112 to 26 larvae per ten crowns. Numbers of larvae declined as bloom progressed. No larvae were extracted from crowns after mid-May. Larval densities were low in treated plots for about three weeks after treatment. Flower densities in treated plots were significantly greater than those in UTC's. However, seed yields were not significantly different between treated and UTC's.

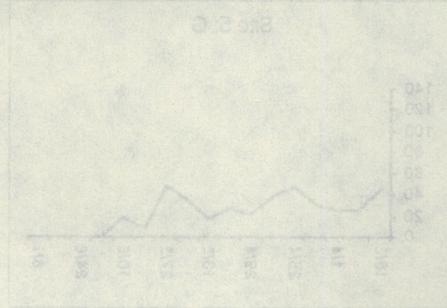


Illustration 1. Mean numbers of *Scaptomyza apicalis* Hardy flies recorded from yellow sticky traps in commercial meadowfoam fields, in Linn Co., OR, 1997.

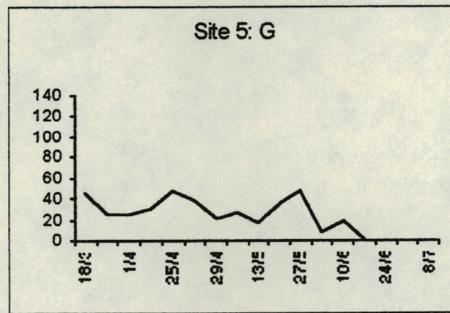
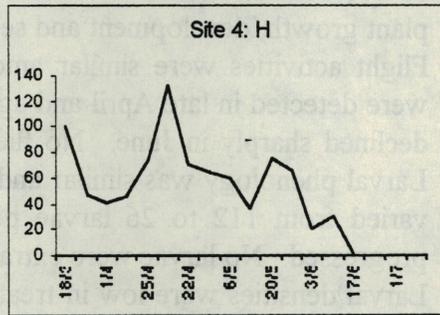
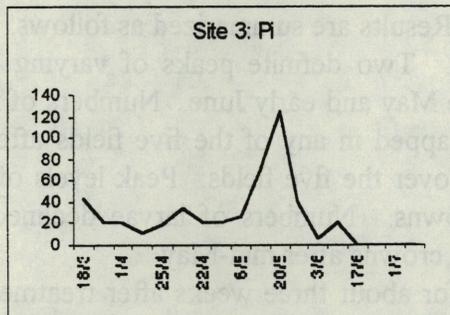
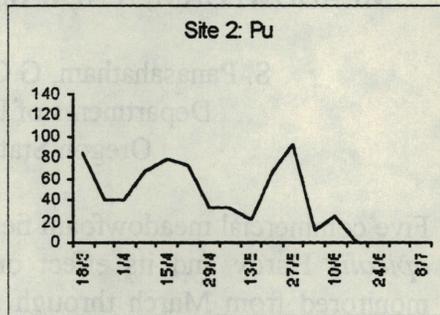
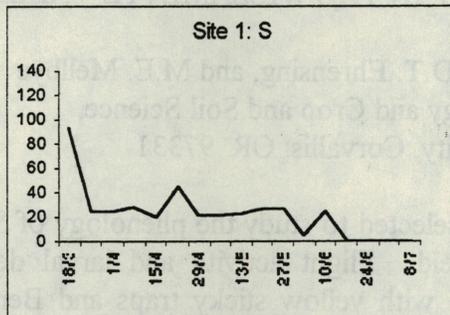


Illustration 2. Mean numbers per 10 crowns of *Scaptomyza apicalis* Hardy larvae in each of five commercial meadowfoam fields, Linn Co., OR, 1997.

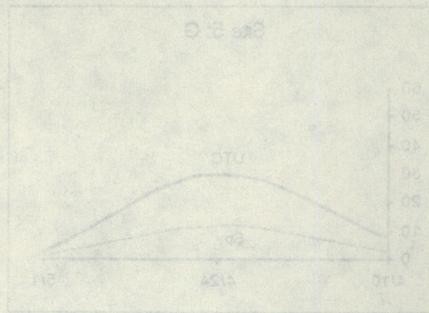
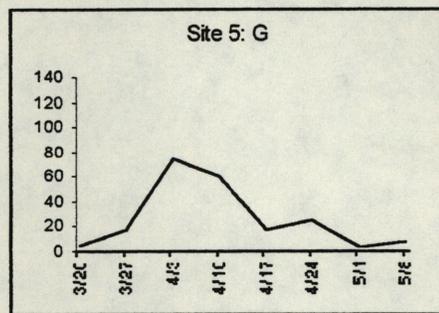
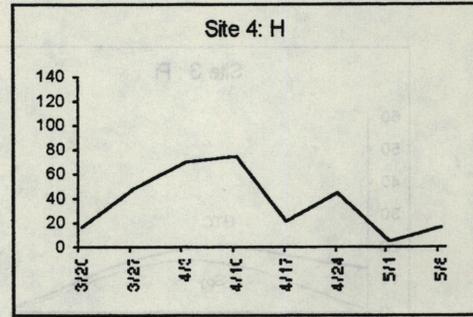
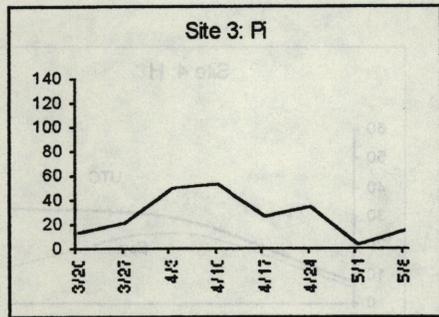
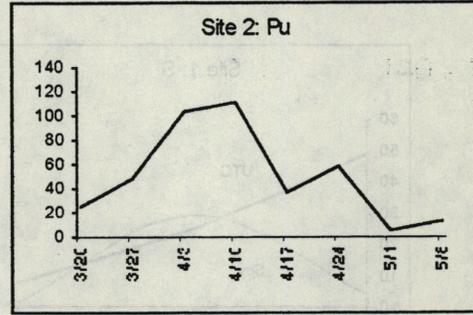
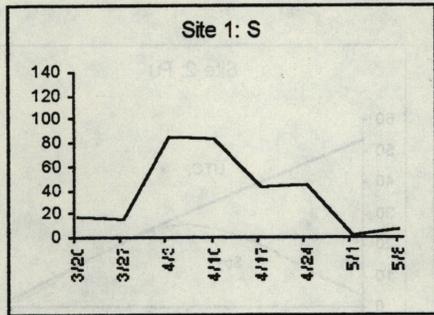


Illustration 3. Mean numbers of *Scaptomyza apicalis* Hardy larvae per 10 crowns in dimethoate and UTC plots in each of five commercial meadowfoam fields, Linn Co., OR, 1997.

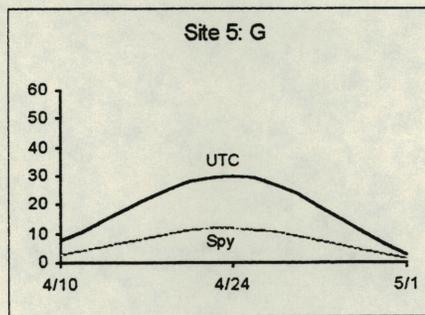
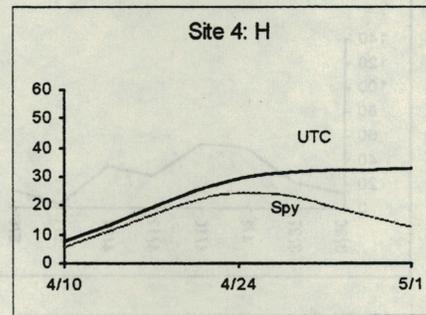
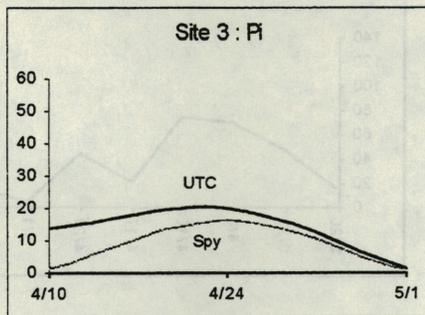
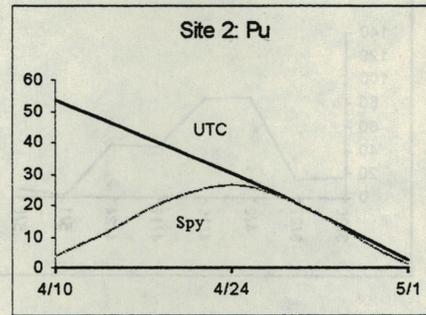
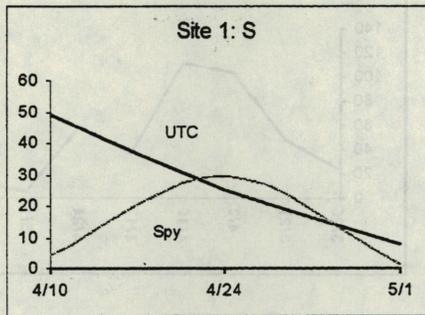


Illustration 4. Mean numbers of flowers (0.1 m²) and seed yields (lb./ac) in dimethoate treated and UTC plots in each of five commercial meadowfoam fields, Linn Co., OR, 1997.

