

in late fall. Diapause was initiated in the larval stage of the tobacco hornworm by photoperiodic day length cycles of 5 to 13 hours. In contrast, temperature rather than photoperiod was the major

factor influencing diapause induction in the tomato hornworm in southern Ontario (Svec, 1964). Diapause was induced by exposing prepupal and pupal stages to temperatures of 22°C or lower.

References

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INCONGRUITY BETWEEN LARVAE AND ADULTS IN THE ACCEPTABILITY OF Highbush BLUEBERRY CULTIVARS BY THE BLACK VINE WEEVIL

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Laboratory observations have shown that adults of the black vine weevil, *Otiorthynchus (Brachyrhinus) sulcatus* (F.), do not oviposit or survive when fed exclusively on excised leaves of the blueberry cultivars Cabot and Weymouth (Cram, 1970). To test the acceptability of 4 cultivars by

larvae, rooted cuttings were potted in peat soil and grown in the greenhouse. Twenty 8-day-old viable eggs were placed on the soil of each of 5 replicates. Fifteen weeks later the pots were dumped and the soil was searched for larvae with the following results:

Cultivar	Replicates					Total
	1	2	3	4	5	
Rancocas	0*	1*	4*	2*	0*	7
Pemberton	0	2*	3*	1	0	6
June	0	1*	0	0*	2*	3
Weymouth	5*	1	3*	0*	5*	14

*Plant dead-stem girdled below soil.

Although there was very low recovery of larvae the evidence of severe damage was present in all the cultivars. The largest number of late instar larvae were recovered from Weymouth which indicates that there is no congruity between the acceptability of this cultivar by larvae feeding on roots and adults feeding on leaves. Hence, from an economic standpoint,

Weymouth cannot be considered to be an immune cultivar. In practice, a heavy infestation of larvae severely damaged and even killed many young Weymouth plants in an 8-acre nursery row planting. Reproductively mature adults probably walked into the area and deposited their eggs around these plants.

Reference

- Cram, W. T. 1970. Unacceptability of cultivars of highbush blueberry by adult black vine weevils (Col.:Curculionidae). J. Entomol. Soc. B.C. 67:3-6.