

Biology/Phenology

Development of a Predictive Model for the *Lacanobia* Fruitworm

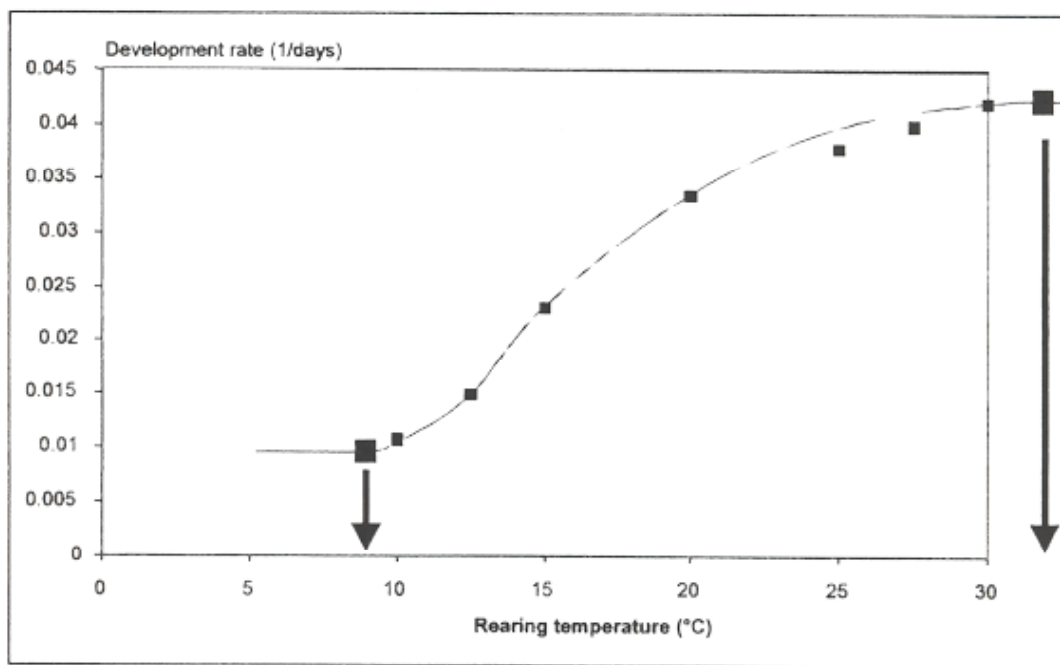
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A predictive degree-day model is currently under development for *Lacanobia* fruitworm. Intensive field monitoring of both larval and adult phenology, as well as laboratory rearing of all life stages under constant temperature regimes, provided the data to develop this model. It appears that adult biofix (capture of the first moth) is closely associated with that of codling moth, but the preoviposition period and time for eggs to hatch may be longer. The upper and lower temperature thresholds for larval development appear to be similar to that of the codling moth (upper—88°F and lower—50°F) with the larvae going through one more instar than the codling moth.

Newly hatched *L. subjuncta* larvae were placed individually on apple foliage in small petri dishes and on artificial diet in the same containers. These dishes were then placed in controlled environmental growth chambers kept at constant temperature (10, 12.5, 15, 20, 25, 27.5, and 30°C) and a 16:8 L:D photoperiod. Each molt of *Lacanobia* was recorded. At the time of this publication development to adult was not complete at all temperatures so estimates were based on data collected to date. These data indicate that the thresholds for development may be in a similar range for those of codling moth [upper—88-92°F (32+°C), lower—48-50°F (9-10°C)].



■ Predicted lower and upper thresholds of 48-50°F and 88-90°F