Abstract: Lab and field studies were conducted to determine how phenology of OBLR and PLR larvae is affected by the use of Bt and Intrepid™. In the lab, 3rd and 4th instar OBLR larvae were fed Bt or Intrepid™ spiked diet at rates low enough to achieve sublethal effects. The larvae were monitored until death or adult emergence, and the time of each molt was recorded. Results show that the increase in time needed to reach adult stage caused by the ingestion of Bt was 6-20% and the delay associated with Intrepid™ was 10-15% when compared with control individuals. Field studies consisted of monitoring orchards that were treated with Bt or Intrepid™ and untreated orchards. Adult trap data were used in conjunction with larvae samples, which were taken weekly throughout the season. Flight curves were generated for treated and untreated orchards and compared to the WSU flight model as well as to the flight models generated by our previous data. In orchards treated with either Bt or Intrepid™ there was a developmental delay of approximately 105 LR degree-days compared to control orchards.