Growing Degree Day (GDD) Models

This e-Newsletter provides guidance for insecticide application timing based on GDD models that predict insect life stages. The models use heat units, which offer a better predictor of insect development than calendar days.

The GDD model used in this newsletter is based on NOAA’s 7-month extended forecast, and pulls data from the Agrimet weather stations at COARC and Powell Butte.

OSU research has shown in-season control of Mint Root Borer eggs and first instar larvae can be achieved with Coragen®, and the optimal application timing for MRB control is at peak moth catch (predicted to be July 8 or 14).

This timing also controls cutworm, armyworms, and loopers.

Questions? Contact Clare Sullivan: Clare.Sullivan@oregonstate.edu
Mint Root Borer (MRB) Development – Culver & Madras

✧ 2018 predicted GDDs (orange line) close to 10-yr average (green line), but behind 2017 (pink line)
✧ 1st moth catch June 3rd, peak moth catch predicted July 8th

Variegated Cutworm (VC) Development – Culver & Madras

✧ Adults laying eggs, peak egg laying was predicted for June 20th
✧ Peak 1st instar larvae predicted for June 30th
MRB Development – Prineville & Powell Butte

✧ 2018 predicted GDDs (orange line) close to 10-yr average (green line), but behind 2017 (pink line)
✧ 1st moth catch June 9th, peak moth catch predicted July 14th

VC Development – Prineville & Powell Butte

✧ Adults laying eggs, peak egg laying predicted June 24th
✧ Peak 1st instar larvae predicted for July 5th