



Extension

UNIVERSITY OF WISCONSIN-MADISON

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Degree Days for Common Fruit and Vegetable Insect Pests

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COMMON VEGETABLE INSECTS THAT CAN BE MONITORED USING DEGREE DAYS OR INDICATOR PLANTS

Cabbage Maggot

Base temperature = 43°F
300, 1476, 2652 DD₄₃ for 1st, 2nd, & 3rd generations flies
1st generation eggs are laid when the common lilac is in full bloom



Colorado potato beetle, 1st generation

Base temperature = 50°F
Begin counting when first eggs appear
1st instar larva at 185 DD₅₀
2nd instar larva at 240 DD₅₀
3rd instar larva at 300 DD₅₀
4th instar larva at 400 DD₅₀
Pupa at 675 DD₅₀



Common Asparagus Beetle

Base temperature = 50°F
Egg laying at 150 – 240 DD₅₀
(Amelanchier full bloom, redbud early to full bloom, Black Hills spruce bud caps splitting)

Corn Rootworm

Base temperature = 50°F
Adult beetles present at 1300 DD₅₀
(Canada thistle seed ripe, Queen Anne's lace early bloom)

European Corn Borer

Base temperature = 50°F
1st spring moths at 375 DD₅₀
(Spiraea x vanhouttei in full bloom)
1st eggs at 450 DD₅₀
(Pagoda dogwood late bloom)
Peak spring moths at 631 DD₅₀
(Black locust full bloom)
1st summer moths at 1400 DD₅₀
(Mountain-ash fruit golden yellow, most Canada thistle seed ripe)
1st eggs at 1450 DD₅₀
1st egg hatch at 1550 DD₅₀
Peak summer moths at 1733 DD₅₀
Summer treatment period at 1550 – 2100 DD₅₀
(Queen Anne's lace full bloom – 1500 to goldenrod early bloom – 2100)



Fleabeetles

Base temperature = 50°F
150-200 DD₅₀
(Norway maple late bloom, Amelanchier blooming, redbud early bloom)

Imported Cabbageworm

Base temperature = 50°F
Adult butterflies at 150-240 DD₅₀
(Amelanchier full bloom, redbud early to full bloom, Black Hills spruce bud caps splitting)

Onion Maggots

Base temperature = 40°F
680, 1950, 3230 DD₄₀ for 1st, 2nd, & 3rd generation flies
1st generation eggs laid 230-280 DD₄₀



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Squash Vine Borer

Base temperature = 50°F
Egg laying at 900-1000 DD₅₀
(Chicory full bloom)

Seed Corn Maggot

Base temperature = 39°F
200, 600 for 1st and 2nd generation flies



COMMON FRUIT INSECTS THAT CAN BE MONITORED USING DEGREE DAYS OR INDICATOR PLANTS

Apple Maggot*

Base temperature = 50°F
1st adult fly emergence 900 DD₅₀
1st egg laying 1100 DD₅₀
Peak fly emergence 1600 DD₅₀
Peak egg laying 1750 DD₅₀
End of fly emergence 2800 DD₅₀



* These degree days assume normal soil moisture. Under dry conditions, all apple maggot events will be delayed until the soil is moist.

Codling Moth

Base temperature = 50°F
1st generation moth emergence 150 DD₅₀
Eggs laid 250 DD₅₀
1st generation peak moth emergence 500 DD₅₀
Peak egg laying 550 DD₅₀
2nd generation first moth emergence 1150 DD₅₀
2nd generation peak moth emergence 1600 DD₅₀
2nd generation peak egg laying 1700 DD₅₀



Obliquebanded Leafroller

Base temperature = 43°F
1st generation moth emergence 600 DD₄₃
1st generation peak moth emergence 800 DD₄₃
1st generation peak egg laying 1250 DD₄₃
2nd generation moth emergence 2050 DD₄₃
2nd generation first eggs laid 2300 DD₄₃

For more information on phenology: See University of Wisconsin Garden Facts XHT1085, XHT1086 and XHT1088, or contact your county Extension agent.

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A complete inventory of University of Wisconsin Garden Facts is available at the University of Wisconsin-Madison Division of Extension Plant Disease Diagnostics Clinic website: <https://pdcd.wisc.edu>.