



Pest Scouting Guide: (500-1300 GDD₅₀)

The information provided here gives **scouting ranges** for insect pests as well as forecasting of **GDD₅₀ accumulation predictions** to help time scouting and treatment efforts. This document supports scouting, *it does not replace it*. Keeping good notes on pest development will help dial in scouting and treatment efforts at your local level.

Location specific GDD₅₀ models

USPEST.org/dd/model_app and
<http://newa.cornell.edu/twaller@njaes.rutgers.edu>) for information

Projected GDD50 accumulation as of 6/1/2021

Region	Location	1-Jun	1-Jul	1-Aug	1-Sep	1-Oct
Southern	Upper Deerfield (NJ50)	590	1283	2125	2910	3456
Central	Howell / Freehold (NJ10)	438	1078	1873	2607	3085
Northern	High Point (NJ59)	353	837	1444	1999	2305

Forecast: NOAA NCEP Coupled Forecast System model version 2 (CFSv2) forecast system (3.5 months) (USPEST.ORG)

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Boxwood Blight Risk Assessment as of 6/1/2021

Region	Location	CODE	1-Jun	2-Jun	3-Jun	4-Jun	5-Jun	6-Jun
Southern	Upper Deerfield	NJ50	Very Low	Very Low	Low	Infection Risk	Infection Risk	Low
Central	Howell / Freehold	NJ10	Low	Very Low	Low	Infection Risk	Infection Risk	Low
Northern	High Point	NJ59	Very Low	Very Low	Low	Infection Risk	High Risk	Low

Please check your local boxwood blight risk at (https://uspest.org/risk/boxwood_app)

Protectant Fungicide options for Boxwood Blight

Format: [FRAC code]: Chemical name (Trade names)

- [M05]: Chlorothalonil (Daconil WS)
- [M05 + 1] Chlorothalonil + Thiophanate methyl (Spectro 90WDG)
- [11] Trifloxystrobin + [7] Fluopyram (Broadform)
- [11] Trifloxystrobin + [3] Triadimefon (Armada 50WDG)
 - [M03] Mancozeb
- [12] Fludioxonil (Medallion WDG)
- [3] Tebuconazole (Torque)

DISCLAIMER: The label is the law, always refer to it for allowable host crops, use-restrictions, application rates, reapplication intervals, re-entry intervals (REI), and mix compatibility information. Production and pesticide information on this site are for private/commercial pesticide applicators and landscape professionals only, and are NOT for home gardener use. Provided materials represent examples and do not cover all possible control scenarios. Trade-names listed do not imply endorsement and are used as examples only. Please contact your local agent or chemical sales representative for more information or to discuss additional pest management options.

as of 6/1/21 T. J. Waller

Nursery and Landscape Pest Scouting - Growing Degree-day Ranges						(500 - 1300 GDD50)
Crop type	Common name	Latin name	GDD50 Range		GDD50 Reference	Developmental / Target Stage
			MIN <small>min: 50°F</small>	MAX <small>max: 95°F</small>		
Many	Spotted Lantern Fly	<i>Lycorma delicatula</i>	250	1000	PA Dept. Ag	1st-4th Instar (nymphs) - control target
Conifer	European pine shoot moth	<i>Rhyacionia buoliana</i>	480	710	5	Larvae Treatment
Malus, Prunus, many	Peach Tree Borer	<i>Synanthedon sp.</i>	500	600	RU	Adults - emerge (1st treatment both types)
Rhododendron	Rhododendron Borer	<i>Synanthedon rhododendri</i>	509	696	RU	Adults emerge
Many	Redheaded flea beetle	<i>Systema frontalis</i>	517	1028	Unv. Del	Adults - feeding / laying eggs
Many	Cottony camellia / taxus scale	<i>Pulvinaria floccifera</i>	520	-	6	Crawlers (1st generation)
Birch	Birch Leafminer	<i>Fenusia pusilla</i>	530	700	RU	Larvae (2nd generation)
Oak	Oak blotch leafminers	<i>Cameraria spp. ; Tischeria spp.</i>	533	912	5	Typical treatment window
Maple	Greenstriped mapleworm	<i>Dryocampa rubicunda</i>	533	1645	5	Control target
Conifer	Arborvitae Leafminer	<i>Argyresthia thuella</i>	533	700	RU	Adults (egg laying) - larvae treatments
Euonymus	Euonymus Scale	<i>Unaspis euonymil</i>	533	820	RU	Crawlers (1st generation)
Conifer	Balsam gall midge	<i>Paradiplosis tumifex</i>	550	700	4	Galls apparent
Conifer	Juniper scale	<i>Carulaspis juniperi</i>	550	700	7	Egg hatch
Malus, Prunus, many	Greater peach tree borer	<i>Synanthedon exitiosa</i>	575	710	4	Adult emergence
Conifer	Cryptomeria scale	<i>Aspidiotus cryptomeriae</i>	600	800	3	First crawler emergence
Conifer	Cooley spruce gall adelgid	<i>Adelges cooleyi</i>	600	1000	7	Nymphs active - Douglas fir (control target)
Conifer	Bagworm	<i>Thyridopteryx ephemeraeformis</i>	600	900	RU	Larvae (early instars) - ONLY CONTROL WINDOW
Conifer	Cryptomeria scale	<i>Aspidiotus cryptomeriae</i>	600	800	RU	Crawlers (1st generation)
Elm	Elm leaf beetle	<i>Xanthogaleruca luteola</i>	600	1300	7	Larvae (2nd generation)
Conifer	Spruce budscale	<i>Physokermes hemicryphus</i>	700	1150	4	Crawlers (1st generation)
Many	White prunicola scale	<i>Pseudaucaspis prunicola</i>	707	1151	RU	Crawlers (1st generation)
Conifer	Juniper scale	<i>Carulaspis juniperi</i>	707	1260	RU	Crawlers (1st generation)
Many	Calico scale	<i>Eulecanium cerasorum</i>	714	-	6	Crawlers (1st generation)
Conifer	Striped pine scale	<i>Toumeyella pini</i>	750	800	4	Egg hatch
Turf	Hairy cinch bug	<i>Blissus leucopterus</i>	765	870	RU	1st generation (50% - 2nd instar)
Oak, hickory, birch, many	Oak lecanium scale	<i>Parthenolecanium quercifex</i>	789	-	6	Crawlers (1st generation)
Rhododendron	Azalea Lacebug	<i>Stephanitis pyrioides</i>	802	1029	RU	Eggs / Nymphs 3rd Generation
Many, shadetrees	Cottony maple scale	<i>Pulvinaria innumerabilis</i>	802	1265	RU	Crawlers (1st generation) - control target
Oaks	Oak spider mites	<i>Oligonychus bicolor</i>	802	1265	RU	All Stages
Many	Roundheaded appletree borer	<i>Saperda candida</i>	802	1129	RU	Adults
Oaks	Golden oak scale	<i>Asterolecanium variolosum</i>	802	1266	5	Egg hatch
Acer	Cottony maple leaf scale	<i>Pulvinaria acericola</i>	802	1265	5	Crawlers (1st generation)
Maples	Japanese maple scale	<i>Lopholeucaspis japonica</i>	829	-	6	Crawlers (1st generation)
Elm	European elm scale	<i>Gossyparia spuria</i>	831	1388	6,2	Crawlers (1st generation)
Mimosa,	Mimosa webworm	<i>Homadaula anisocentra</i>	880	-	RU	Larvae (1st generation)
Turf	Bluegrass billbug	<i>Sphenophorus parvulus</i>	884	1003	RU	Larvae 20%
Turf	N. Masked chafer	<i>Cylocephala borealis</i>	898	905	RU	1st adults
Honeylocust	Honeylocust mite	<i>Eotetranychus multidigituli</i>	912	1514	2	All Stages
Honeylocust	Honeylocust spider mite	<i>Platytetranychus multidigituli</i>	912	1514	5	Typical treatment window
Shade trees	European fruit lecanium	<i>Parthenolecanium corni</i>	932	1645	6, RU	Crawlers - control target
Many	Japanese beetle	<i>Popillia japonica</i>	950	2150	7	Adult emergence and feeding
Conifer	Pine tortoise scale	<i>Toumeyella parvicornis</i>	1000	1200	4	Egg hatch ends, last of crawlers
Ash	Emerald ash borer	<i>Agrilus planipennis</i>	1000	1200	4	Peak adult activity
Many	Redheaded flea beetle	<i>Systema frontalis</i>	1028	1570	Unv. Del	2nd generation of un-hatched eggs
Yew, many conifers	Fletcher Scale (Yew)	<i>Parthenolecanium fletcheri</i>	1029	1388	RU	Crawlers (1st generation) - control target
Locust	Locust leafminer	<i>Odontota dorsalis</i>	1029	1388	RU	Adults
Juglandaceae	Walnut Caterpillar	<i>Datana integerrima</i>	1029	1514	2	Larvae Treatment
Many	Indian wax scale	<i>Ceroplastes ceriferus</i>	1145	-	6	Crawlers (1st generation)
Many	Oriental Beetle	<i>Anomala orientalis</i>	1147	-	6	Adult emergence
Euonymus	Euonymus Scale	<i>Unaspis euonymil</i>	1150	1388	5	2nd generation targeted treatments
Dogwood	Dogwood sawfly	<i>Macremphytus tarsatus</i>	1151	1500	RU	Larvae Treatment
Tulip	Tuliptree aphid	<i>Illinoia liriodendri</i>	1151	1514	RU	Nymphs / adults
Conifer	Northern pine weevil	<i>Pissodes nemorensis</i>	1200	1400	4	2nd generation adults active
Conifer	Pine root collar weevil	<i>Hyllobius radialis</i>	1200	1400	4	2nd generation adults active
Conifer	White pine weevil	<i>Pissodes strobi</i>	1200	1400	4	2nd generation adults active
Boxwood	Boxwood leafminer	<i>Monoarthropalpus flavus</i>	1200	1400	5	Larvae Treatment
Conifer	Pine Needle Scale	<i>Chionaspis pinifoliae</i>	1250	1350	7	Crawlers (2nd generation)
Rhododendron	Azalea whitefly	<i>Pealius azaleae</i>	1250	1500	5	Adults/nymphs
Many	Lacebugs (on hawthorn)	<i>Corythucha cydoniae</i>	1266	1544	RU	Nymphs / adults
Many	Leafhoppers	Species within <i>Cicadellidae</i>	1266	1544	RU	Nymphs / adults
Many	Fall webworm	<i>Hyphantria cunea</i>	1266	1795	2	Caterpillars present - larvae treatment
Privet	Privet rust mite	<i>Aculus ligustri</i>	1266	1515	5	Second typical treatment window
Many	Two spotted spider mite	<i>Tetranychus urticae</i>	1300	2000	RU	Nymphs / adults
<p>Note: Growing degree-day values utilize daily average air temperatures with a minimum temperature threshold (a.k.a. 'base') of 50F = GDD50 (max. temp. threshold set at 95F). These values are accumulated from a biofix date, such as January or March 1st in the NE USA. Provided GDD50 are scouting ranges and should be truthed.</p> <p>Daily GDD50 = (Max + Min temp.) / 2 - 50 (min temp. threshold)</p>			RU	Rutgers Cooperative Extension - Landscape IPM Notes		
			2	http://cctetompkins.org/resources/using-growing-degree-days-for-insect-management		
			3	https://extension.psu.edu/ipm-basics-for-christmas-trees#section-2		
			4	https://www.canr.msu.edu/ipm/agriculture/christmas_trees/gdd_of_conifer_insects		
			5	https://www.agriculture.nh.gov/publications-forms/documents/landscape-pests.pdf		
			6	https://extension.umd.edu/ipm/pest-predictive-calendar-landscapenursery		
			7	https://www.canr.msu.edu/ipm/agriculture/christmas_trees/gdd_of_landscap_insects		
			Unv. Del.	Coorespondance with Dr. Kunkel (University of Delaware)-evolving GDD ranges		