NEW JERSEY DEPARTMENT OF AGRICULTURE **VOL. III**
DIVISION OF PLANT INDUSTRY
NURSERY INSPECTION PROGRAM

HORTICULTURAL PESTS OF REGULATORY CONCERN

SCALE INSECT PESTS

GROWING DEGREE DAYS: Base 50 (DDB50) for Immature 'Crawler' Stages

#	Common Name	Scientific Name	Generations (DDB50) I	II	III	NJ Calendar (Estimates) Start Times
1	**Azalea Bark Scale**	*Eriococcus azaleae*	400-1500	-	-	June
2	**Calico Scale**	*Eulecanium cerasorum*	400-1200	-	-	June
3	**Cottony Maple Scale**	*Pulvinaria innumerabilis*	802-1265	-	-	Mid-June
4	**Cottony Taxus (Camelia) Scale**	*Chloropulvinaria floccifera*	802-1388	-	-	Mid-June
5	**Cryptomeria Scale**	*Aspidiotus cryptomeriae*	300-750	2500-3000	-	Late-May, Late-August
6	**Elongate Hemlock Scale**	*Fiorinia externa*	360-700	2515-2625	-	Late-May, Late-August
7	**Euonymus Scale**	*Unaspis euonymi*	533-820	1150-1388	-	June, July
8	**European Fruit Lecanium Scale**	*Parthenolecanium corni*	700-1645	-	-	Mid-June
9	**Fletcher Scale**	*Parthenolecanium fletcheri*	1029-1388	2515-2800	-	July, Late-August
10	**Gloomy Scale**	*Melanaspis tenebricosa*	1500-2500	-	-	Mid-July
11	**Golden Oak Scale**	*Asterolecanium variolosum*	300-1266	-	-	Late-May
12	**Hemlock Scale**	*Abgrallaspis ithacae*	1388-2154	-	-	July
13	**Holly Pit-making Scale**	*Asterodiaspis puteanum*	802-1266	-	-	Late-June
14	**Indian Wax Scale**	*Ceroplastes ceriferus*	700-1200	-	-	Mid-June
15	**Japanese Maple Scale**	*Lopholeucaspis japonica*	500-1600	2000-3000	-	June, August
16	**Juniper Scale**	*Carulaspis juniperi*	707-1260	-	-	Mid-June
17	**Magnolia Scale**	*Neolecanium cornuparvum*	246-448	2155-2800	-	May, August
18	**Maskell Scale**	*Leepidosaphes pallida*	700	2600	-	Mid-June, September
19	**Oak Pit-making Scale**	*Asterolecanium minus*	300-1266	-	-	Late-May
20	**Obscure Scale**	*Melanaspis obscura*	1500-2500	-	-	Mid-July
21	**Oystershell Scale**	*Lepidosaphes ulmi*	363-707	-	-	Late-May
22	**Pine Needle Scale**	*Chionaspis pinifoliae*	298-448	1290-1917	-	Mid-May, July
23	**Pine Tortoise Scale**	*Toumeyella parvicornis*	618-1050	-	-	Mid-June
24	**Putnum Scale**	*Diaspidiotus ancylus*	200-800	1500-2800	-	May, Mid-July
25	**San Jose Scale**	*Diaspidiotus perniciosus*	500	1450	2600	June, Mid-July, September
26	**Terrapin Scale**	*Mesolecanium nigrofasciatum*	400-1200	-	-	June
27	**Tuliptree Scale**	*Toumeyella liriodendri*	2032-2629	-	-	August
28	**White Peach Scale**	*Pseudaulacaspis pentagona*	250	1000	2400	Mid-May, July, Late-August
29	**White Prunicola Scale**	*Pseudaulacaspis prunicola*	145	707-1151	2000	May, Late-July, August
30	**Winged Euonymus Scale**	*Lepidosaphes yanagicola*	860+	-	-	Late-June

Local Growing Degree Day Info found online at:

1. **Rutgers Agricultural Weather Outlook:** http://envsci.rutgers.edu/fcst/NJ_AG.htm
2. **Rutgers Plant & Pest Advisory:** http://njaes.rutgers.edu/pubs/plantandpestadvisory/
3. **The Weather Channel:** http://www.weather.com/outdoors/agriculture/growing-degree-days/

W. Johnson & H. Lyon, *Insects That Feed on Trees and Shrubs*, 2nd ed. Ithaca, NY: Cornell University Press, 1991.
M. Kosztarab, Scale Insects of Northeastern North America, Identification, Biology, and Distribution, VA Museum of Natural History, Martinsville, VA. 1996.
N. Adams, *Using Growing Degree Days for Insect Management*. University of New Hampshire Cooperative Extension, University of New Hampshire, Durham, NH. G. Hoover, et al. *Woody Ornamental Insect, Mite & Disease Management*. Penn State College of Agricultural Sciences. University Park, PA. 2011.
D. Miller & J. Davidson, *Armored Scale Insect Pests of Trees and Shrubs (Hemiptera: Diaspididae)*, Cornell University Press, Ithaca, NY. 2005.
Cornell Cooperative Extension – Horticulture Diagnostic Laboratory, *Using Growing Degree-Days for Insect Pest Management*, Cornell University, Ithaca, NY, 2010.