

Redheaded flea beetle - life stage predictions for South, Central, and Northern New Jersey with material considerations

Calendar date predictions for target range as of 7/6/2021

Information compiled by Dr. Timothy J. Waller - Rutgers Cooperative Extension (2021)

Growth Stage	Gen.	GDD50 TARGET RANGE	GDD50 TARGET RANGE	SOUTH		CENTRAL		NORTH		NOTES <i>Systemic (S) - Contact (C) - Biologicals (B) - Herbicides (H)</i>	Material / Compound Considerations (Examples = no endorsements implied) [IRAC GROUP #]
				Upper Deerfield (NJ50)		Howell (NJ10)		High Point (NJ59)			
				LOW (DATE)	HIGH (DATE)	LOW (DATE)	HIGH (DATE)	LOW (DATE)	HIGH (DATE)		
Egg hatch - larvae	1st	242	600	2-May	29-May	10-May	6-Jun	24-May	21-Jun	<p>(S) Initiate systemic treatments 1-month prior to adult activity</p> <p>(C) Contact materials may be used to knock-down larvae</p> <p>(B) Some bio-rational / logicals are effective on larvae</p> <p>- Look for larval activity on the outside of root balls</p> <p>- Larvae may be active prior to this GDD50 timeframe</p>	<p>SYSTEMIC</p> <p>Cyantraniliprole [28] (Mainspring)</p> <p>Chlorantraniliprole [28] (Acelepryn)</p> <p>Neonicotinoids [4A]</p> <p>Dinotefuran (Safari 20SC) ; Thiomethoxam (Flagship 25 WG) ; Imidacloprid (Imidacloprid 2F, Marathon 1G, Marathon II) ; cyfuthrin [3A] + imidicloprid (Discus)</p>
Adults (feeding / laying eggs)	1st	517	1028	24-May	20-Jun	5-Jun	28-Jun	9-Jun	9-Jul	<p>(S/C/B) Start adult contact sprays - continue systemic treatments</p> <p>(H) Control weeds - adults will hide-in and feed-on them</p> <p>- Adult feeding damage will be apparent</p> <p>- Scout to determine best time for applications</p> <p>- Use of agitator compounds may drive adults from hiding</p>	<p>Organophosphates [1B]</p> <p>Acephate (Orthene, Acephate 97UP)</p>
Egg hatch - larvae	2nd	1570	1860	11-Jul	21-Jul	19-Jul	30-Jul	5-Aug	21-Aug	<p>(S) Continue systemic treatments</p> <p>(C/B) Contact materials to target larvae AND adults</p> <p>- Potential for considerable overlap of larvae - adult stages</p> <p>(H) Control weeds - adults will hide in and feed on them</p>	<p>CONTACT</p> <p>Bifenthrin [3A] (UP Star SC, Talstar Select)</p> <p>Carbamates [1A] - Carbaryl (Sevin SL)</p> <p>Tolfenpyrad [21A] (Hachi-Hachi SC)</p> <p>Cyclaniliprole [28] + Flonicamid [29] (Pradia)</p>
Adults (feeding / laying eggs)	2nd	1878	2318	22-Jul	7-Aug	31-Jul	18-Aug	21-Aug	1-Oct	<p>(C/B) Adult contact sprays</p> <p>(S) * If pest pressure is high * - continue systemic materials</p> <p>(H) Control weeds - adults will hide-in and feed-on them</p> <p>- Adult feeding damage will be apparent</p> <p>- Use of agitator compounds may drive adults from hiding</p>	<p>BIOLOGICAL / BIORATIONAL</p> <p>Azadirachtin (Aza-Direct, Azatin-O)</p> <p>Beneficial nematodes (Millennium)</p> <p>Entomopathogenic fungi (Ancora, BotaniGuard)</p> <p>Agitator (Captiva Prime)</p>

POTENTIAL OVERLAP OF GENERATIONS / STAGES

* A third generation of larvae and feeding adults is possible in the southern and central regions *

Estimated using USPEST.org, 3.5-month CFSv2 based seasonal climate forecast, simple average growing degree-days, min temp: 50F, max temp: 95F.

Insect development growing degree-day ranges based on trials by Dr. Kunkel - Extension Specialist - University of Delaware