

**Red-headed flea beetle (*Systena frontalis*) - life stage predictions for South, Central, and Northern New Jersey with material considerations**

**UPDATED 4/30/2024**

*(Subject to Change) Calendar date predictions for target ranges*

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Information compiled by Dr. Timothy J. Waller - Rutgers Cooperative Extension - Cumberland County

Growth Stage	Gen.	GDD50 TARGET RANGE	GDD50 TARGET RANGE	SOUTH		CENTRAL		NORTH		NOTES (high infestation locations)	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	1	242	600	2-May	26-May	8-May	4-Jun	15-May	11-Jun	(S) Initiate systemic treatments 1-month prior to adult activity  (S) Systemic granular or granular incorporation @ planting is effective (C) Contact materials may be used to knock-down larvae (B) Some bio-rational / logicals are effective on larvae  - Look for larval activity on the outside of root balls  - Larvae may be active prior to this GDD50 timeframe	<b>SYSTEMIC DRENCHES</b>  Cyantranilprole [28] (Mainspring) Chlorantranilprole [28] (Acelepryn) Organophosphates [1B] - Acephate (Orthene, Acephate 97UP)  Neonicotinoids [4A]- Dinotefuran (Safari 20SC) ; Thiomethoxam (Flagship 25 WG) ; Imidacloprid (Imidacloprid 2F, Marathon 1%G, Marathon II)
Adults (feeding / laying eggs)	1	517	1028	22-May	16-Jun	30-May	24-Jun	6-Jun	2-Jul	(S/C/B) Start adult contact sprays - continue systemic treatments (H) Control weeds - adults will hide-in and feed-on them - Adult feeding damage will be apparent - Scout to determine best time for applications - Use of agitator compounds may drive adults from hiding	<b>GRANULAR APPLICATIONS and INCORPORATIONS</b> Neonicotinoids [4A] Imidacloprid (Marathon 1%G, Corectec tablets, Mallet 0.5G)  (Initiate systemic treatments 1-month prior to adult activity)
Egg hatch - larvae	2	1570	1860	<b>POTENTIAL OVERLAP OF GENERATIONS / STAGES</b>						(S) Continue systemic treatments (C/B) Contact materials to target larvae AND adults - Potential for considerable overlap of larvae - adult stages (H) Control weeds - adults will hide in and feed on them	<b>CONTACT</b> Bifenthrin [3A] (UP Star SC, Talstar Select) Cyfluthrin [3] (Decathlon 20WP) - Rotation partner Carbamates [1A] - Carbaryl (Sevin SL) Tolfenpyrad [21A] (Hachi-Hachi SC) Cyclanilprole [28] (Sarisa) + Flonicamid [29] (Pradia)
Adults (feeding / laying eggs)	2	1878	2318	17-Jul	1-Aug	27-Jul	12-Aug	8-Aug	28-Aug	(C/B) Adult contact sprays (S) * If pest pressure is high * - continue systemic materials (H) Control weeds - adults will hide-in and feed-on them - Adult feeding damage will be apparent - Use of agitator compounds may drive adults from hiding	<b>BIOLOGICAL / BIORATIONAL</b>  Azadirachtin (Aza-Direct, Azatin-O) Beneficial nematodes (Millennium) Entomopathogenic fungi (Ancora, BotaniGuard) Adult Agitator (Captiva Prime)

\* A third generation of larvae and feeding adults is possible in warmer years \*

Estimated using USPEST.org. ([https://uspest.org/dd/model\\_app](https://uspest.org/dd/model_app)) NMME Extended Seasonal 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 - subject to change. Treatment considerations based on research performed by Danny Lauderdale - Area Specialized Agent - Nursery Crops, NC State University.

**DISCLAIMER:** The label is the law, always refer to it for allowable host crops, use-restrictions, application rates, reapplication intervals, re-entry intervals (REI), application timing, 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. Tradenames 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 post management options. Calendar dates provided are based on forecasts and therefore not guaranteed.

Photos: Steve Rettke - Rutgers Cooperative Extension



**MAKE SURE YOU ARE NOT DEALING WITH FOLIAR DISEASES**