

SUPRADO

A brand-new class of chemistry with a unique mode of action to fight against annual bluegrass weevils.



(Photos: Ben McGraw, Penn State University)

QUALI-PRO

Superior
ABW Control

A valuable tool in the fight against insecticide resistance in Annual Bluegrass Weevils.

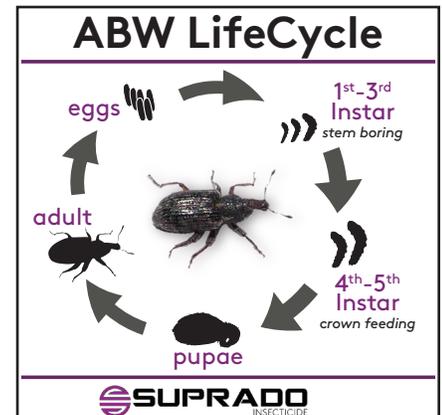
Introducing Quali-Pro's Suprado Insecticide, powered by Novaluron.

Advantages of using Suprado

New Chemistry: Suprado's active ingredient, Novaluron, is available for use in the turf market for the first time. This introduces a new mode of action (IRAC Group 15) to the market as a valuable rotation option in the fight against insecticide resistance.

Application Flexibility: Suprado is effective across multiple stages in the ABW life cycle which provides timing flexibility to fit into your ABW program.

Unmatched Efficacy: Suprado provides superior control of damaging ABW, even on insecticide-resistant populations. No other solution offers this level of control.

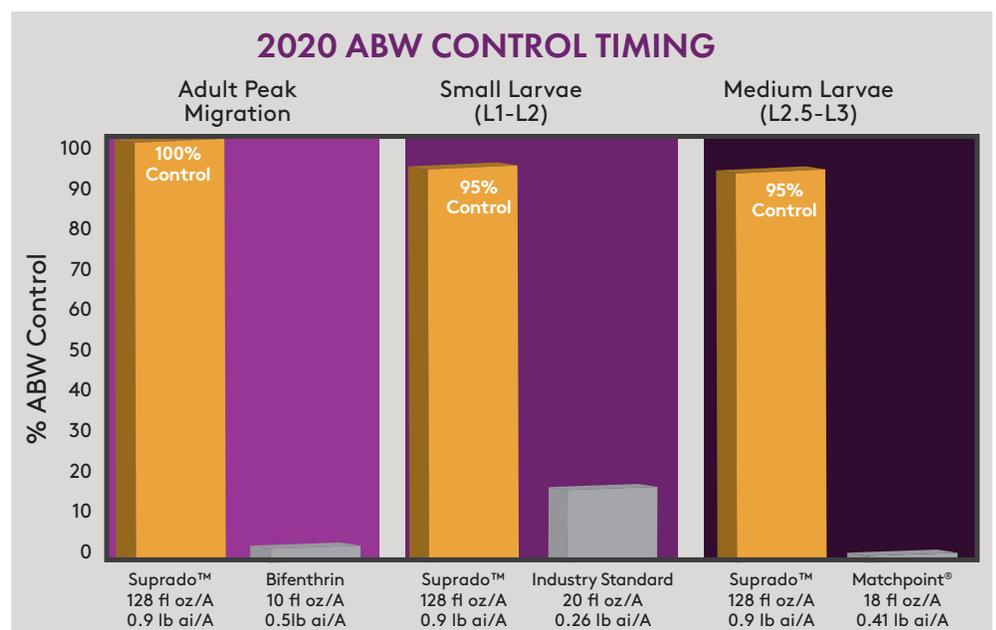


How it Works

Novaluron is a chitin synthesis inhibitor (CSI). This active ingredient interferes with the ability of the insect to produce chitin, the primary component of insect exoskeletons, interrupting molting from one growth stage to another.

Field Study Results

Field tests conducted by Dr. Ben McGraw of Penn State University showed excellent control when applied to an ABW population with **moderate pyrethroid resistance** at typical application timings: adult peak migration, small larvae, and medium larvae stages.



Field tests by Dr. Ben McGraw of Penn State University

ABW Insecticide Resistance

Pyrethroid resistance in adult ABW was first reported in 2009 and has now been confirmed on many sites in NY, NJ, and PA. Pyrethroid-resistant populations have also been documented as having multiple resistance to other chemical classes commonly used. This means these additional chemical MOAs can have reduced efficacy against ABW in those populations. Pyrethroid resistant ABW have shown some level of multiple resistance to chlorpyrifos, spinosad, indoxacarb, chlorantraniliprole, and trichlorfon as depicted in the table below.

Timing	ABW Growth Stage	Plant phenology	Treatment Options
Pre-Season	Adult migration start	Forsythia full bloom	Not Applicable
Stage 1	Adult peak in turf areas	Forsythia 1/2 gold: 1/2 green	<ul style="list-style-type: none"> Pyrethroids* (Bifenthrin, Lambda-Cyhalothrin) Organophosphate (Chlorpyrifos*) Suprado
Stage 2	Small larvae (L1-L2)	Late/post-bloom dogwood	<ul style="list-style-type: none"> Diamides Suprado
Stage 3	Medium larvae-emergence (L2.5-3)	Rhododendron full bloom	<ul style="list-style-type: none"> Diamides Spinosyns Organophosphate Oxadiazine Suprado

*Indicates resistance or diminished efficacy against ABW populations confirmed as "resistant" or "highly resistant" to pyrethroids.

Choose Your Program

So where can Suprado fit into your program? As seen above and below, Suprado's timing is versatile. Program A leads into the season with excellent prevention of larvae by rendering congregating adults unable to reproduce successfully. This is likely the best opportunity for exceptional prevention of damage. If confident in your current "adulticide" timing approach, Suprado can also excel at controlling the post-hatch, smaller larval stages that feed internally in Program B. This allows it the versatility to be a new rotational chemistry, reducing overreliance on a few chemical groups at the early and middle life stages.

ABW Growth Stage	Overwinter	Adult Peak Migration	Hatch-Small Larvae (L1-L2) Inside Stems	Medium Larvae (L2.5-L3) Emergence from Stems	Large Larvae (L4-L5) Feeding on Crowns/ Damage	As needed: 2nd Generation Adults/ Overlapping growth stages
Plant Phenology	Forsythia Full Bloom	Forsythia 1/2 gold: 1/2 green	Dogwood/ Redbud full bloom	Catawba Rhododendron full bloom		
Program A		 [15]	Misc. diamides [28]		trichlorfon [1B], spinosad [5], or indoxacarb [22]	 [15]
Program B		Bifenthrin [3A] or Chlorpyrifos [1B]	 [15]		trichlorfon [1B], spinosad [5], or indoxacarb [22]	 [15]

While a single application of Suprado also gives excellent control of the large, 4th and 5th larval stages feeding externally, this later timing window may already have damage becoming apparent and would not be ideal as a "rescue" type treatment. Additionally, this activity on adult reproduction, eggs, and all larval stages makes Suprado an excellent choice for populations with overlapping growth stages that may occur further into the summer months.

Features and Specs

Product Features

Formulation	Suspension Concentrate
Active Ingredient	10% Novaluron
Effective Against	Annual Bluegrass Weevil Larvae, Billbug Larvae, Turf Caterpillars, White Grubs, Chinch Bugs, Black Turfgrass Ataenius Larvae
Use Sites	Residential lawns, business and office complexes, shopping complexes, multi-family residential complexes, golf courses, airports, cemeteries, parks, playgrounds, athletic fields, and sod farms.
Packaging	2 x 1 gallon; 72 cases/pallet
Application Rates	1 gallon per acre. (See label for specific uses and rates.)
Mode of Action	Group 15. Novaluron is a Chitin Synthesis Inhibitor. Prevents the formation of a new exoskeleton.
Signal Word	Caution



At Quali-Pro, we are committed to delivering the best solutions for your turf and ornamental needs. We offer you a complete line of highly efficient, cost-effective fungicides, insecticides, herbicides and plant growth regulators designed to give you the ultimate in value.



Scan the QR Code to learn more about Suprado.
Visit www.suprado.com or call 800.242.5562 today.

5903 Genoa-Red Bluff, Pasadena, Texas 77507

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