

ADVION WDG

Anywhere Advion gel baits can go — and more.





@SyngentaPest





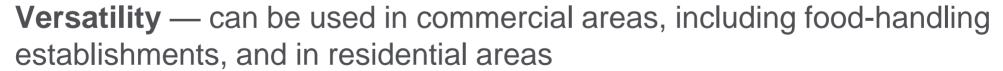
Classification: PUBLIC

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Key features







Reliable control — powered by the trusted active ingredient *indoxacarb* to control a broad range of pests



Peace of mind — its MetaActive™ effect differentiates between target insects and non-target organisms



Convenience — a non-repellent, non-pyrethroid and non-neonicotinoid formulation that can be applied as a spray or foam, indoors and outdoors





Product features



- Versatile product with a unique mode of action
 - Non-pyrethroid, non-neonicotinoid formulation allows for use indoors as a spot or crack-and-crevice application, or outdoors as a perimeter application up to a 10-ft.
 - Controls a wide variety of pests including ants, carpenter bees, cockroaches, fleas, flies, occasional invaders, pantry/stored product pests, subterranean termites, drywood termites and wasps
- Studies demonstrate excellent performance against a wide variety of nuisance insect species
- ► Effective on a wide range of interior and exterior surfaces
- ► Proven to provide non-repellent residual insect control in exterior environments for up to 60 days extended residual for efficiency
- ► Flexible label for use in food-handling establishments
- ► Can be used as a stand-alone treatment, or used in conjunction with Advion® Cockroach Gel Bait, Advion Evolution Cockroach Gel Bait or Optigard® Cockroach Gel Baits
 - [Note: Best practice is to spray first and then bait]





Label highlights

- Multiple use sites:
 - Single- and multi-family residential buildings
 - Commercial industry facilities, including food-handling establishments
 - Transportation equipment (trains, ships, boats, buses)
- Applications allow for perimeter band up to 10 ft. (3 ft. up/7 ft. out) Complete perimeter band around the structure (window frames, door frames, eaves and overhangs)
- Applications can be made on a monthly basis for hard-to-control infestations
- Can be delivered as a foam application
- Dilution options:
 - Label allows for higher volumes for heavier infestations common with some key large-colony ant species
 - Label allows for higher volumes for applications to dense vegetation or porous surfaces
 - Low-concentration, high-volume applications using power spray equipment

Always consult the product label for complete use and application information.





Application use directions

- Indoor treatments as spot or crack-and-crevice
- Outdoor treatments as spot, crack-and-crevice, general surface and perimeter (up to 10-ft. band) and nesting sites (e.g., flower/mulch beds, tree holes, surrounding turf areas, etc.) away from the structure to target <u>trailing</u> ants
 - Use higher specified volumes for exterior use on medium to heavy infestations of pests, porous surfaces, complex sites like dense perimeter landscaping and dense mulching, or for maximum residual performance

Always consult the product label for complete use and application information.





Key pests on label

- Drywood termites
- Ants
- Cockroaches
- ► Fleas
- Flies
- Pantry pests (including granary weevil beetles and saw-toothed grain beetles)
- Silverfish
- Stink bugs (including brown marmorated stink bugs)
- ► And more...

Always consult the product label for complete use and application information.







REGIONAL TRIAL DATA - SOUTHEAST



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Case study on odorous house ants (OHAs)

- ▶ University of Tennessee, Knoxville Tennessee, 2009
 - Dr. Karen Vail
- ▶ Objective was to determine the impact of Advion® WDG insecticide sprays on infestations of OHA (*Tapinoma sessile*)
- ▶ Infested OHA residences were sampled prior to treatments, then at 3, 7, 14, 28, and 60 days after applications

PR097606 Vail





Monitoring



10 to 20 ft.

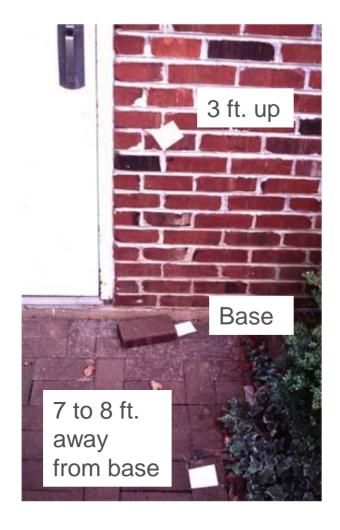
10 to 20 ft.

3 index cards were placed against/near the structure every 10 to 20 ft.

PR097606_Vail



Monitoring





Cards smeared with honey were left in place for 40 min.; ants were counted, recorded and knocked off

-1, 1, 2, 4, 6, 8 and 10 weeks after baiting

PR097606_Vail



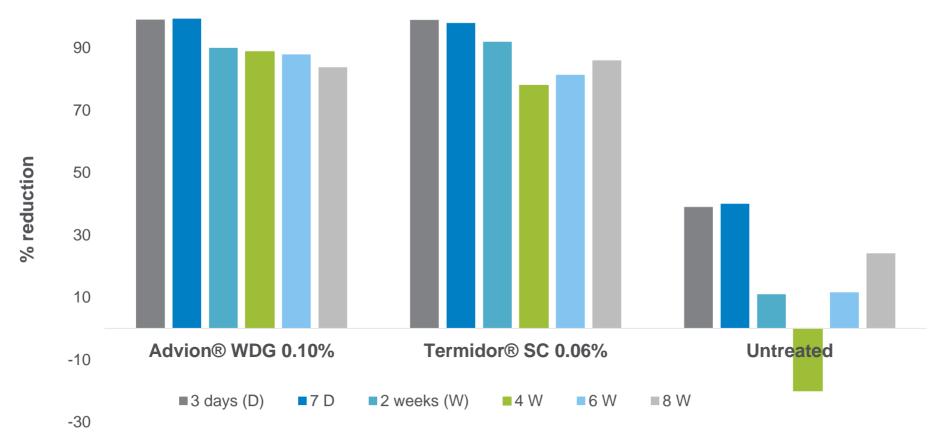




Classification: PUBLIC

Control of OHA around infested structures (Tennessee)

Fast control and no significant differences in control



Performance assessments are based upon results or analysis of public information, field observations and/or internal Syngenta evaluations. Trials reflect treatment rates commonly recommended in the marketplace.

PR097606 Vail





RJM trial design

- ► Apply Advion® WDG solution using a power sprayer to produce a coarse, low-pressure spray as a perimeter band-type treatment
- ► A perimeter band of 10 ft. (3 ft. up and 7 ft. out) of horizontal substrate away from the wall base
 - Applied at a minimum of 3 gal. per 1000 sq. ft.
- ► Exterior lawn and shrub areas outside of perimeter band-type treatment areas will receive a treatment at a minimum of 3 gal. of 0.05% solution per 1,000 sq. ft.
- Outdoor nesting areas such as refuse collection areas, flower/mulch beds, adjacent tree holes and trunks to a height of 5 ft., surrounding turf areas, other nest/foraging sites and foraging trails will be treated
- ► Goal is to treat the entire turf area at each site, but will be limited to 50 ft. in each direction on especially large lawn areas





Treatment information





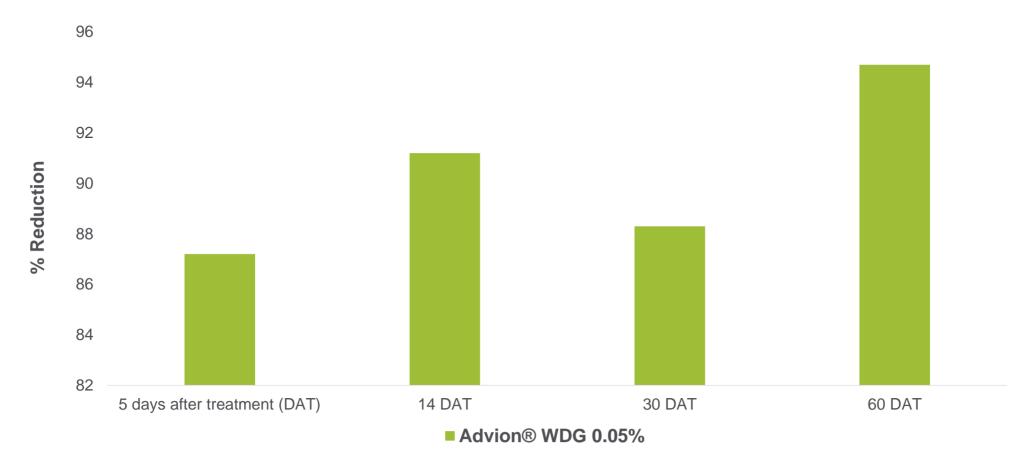
- ► Treatment included applications to structure perimeter, lawn/turf, and mulch beds, ornamentals and landscape
- ► Large-volume application equipment used:
 - Perimeter average: ~ 7 gal.
 - Landscape average: ~ 18 gal.
- Ant populations assessed post-treatment using sausages at 4 locations around structure

PRO12529_RJM





Reduction in tawny crazy ants around infested structures after treatment with Advion WDG



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Trials reflect treatment rates commonly recommended in the marketplace.

PRO12529 RJM





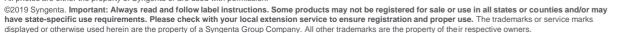
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MIDWEST AND NEW ENGLAND TRIAL DATA



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Case study on carpenter ants

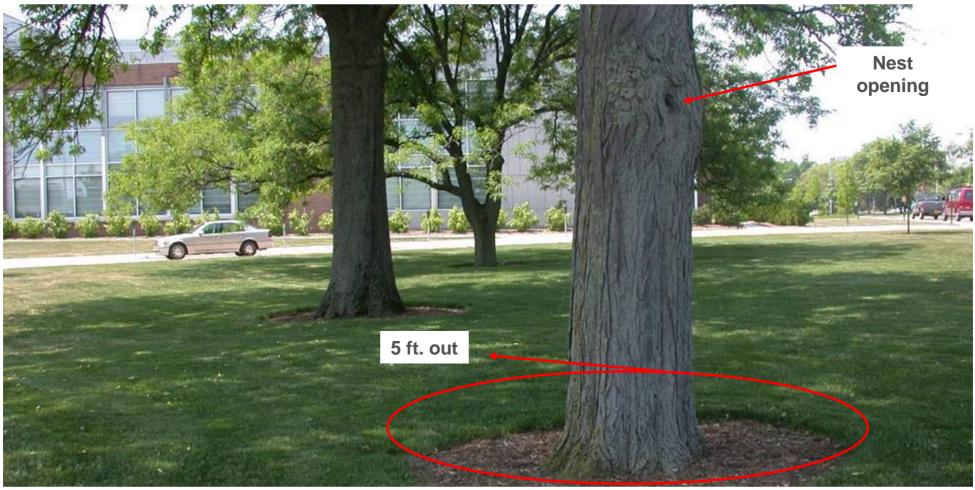
- ► Purdue University, West Lafayette, Indiana, 2008
 - Dr. Grsziek Buczkowski and Dr. Gary Bennett
- Campus trees or structures infested with black carpenter ants or odorous house ants (OHAs)
 - Used trees as a model for residential sites for carpenter ants
- ➤ Sites sampled prior to treatment, then at 1, 3, 7, 14, 21 and 28 days after application

PR088102_Buczkowski





Black carpenter ants (Camponotus pennsylvanicus)

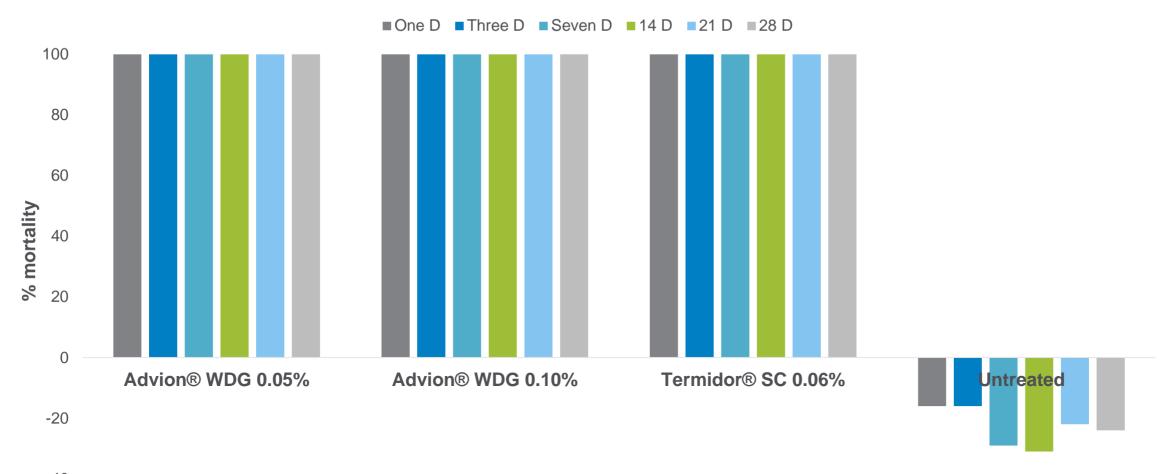


PR088102_Buczkowski





Control of carpenter ants around infested trees



-40
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Trials reflect treatment rates commonly recommended in the marketplace.

PR088102 Buczkowski





Transfer studies with ants

- ► Purdue University, 2009
 - Dr. Grsziek Buczkowski and Dr. Gary Bennett
- ► Trial design:
 - Advion® WDG at 0.10% applied to stainless steel tiles at 1 gal./1,000 sq. ft.
 - Donor ants exposed to treated surfaces for 30, 60 or 120 min. then placed into test containers with untreated ants (recipients)
 - Ratios of donors to recipients were 40:40, 40:80 or 40:120
 - Mortality recorded for 7 days

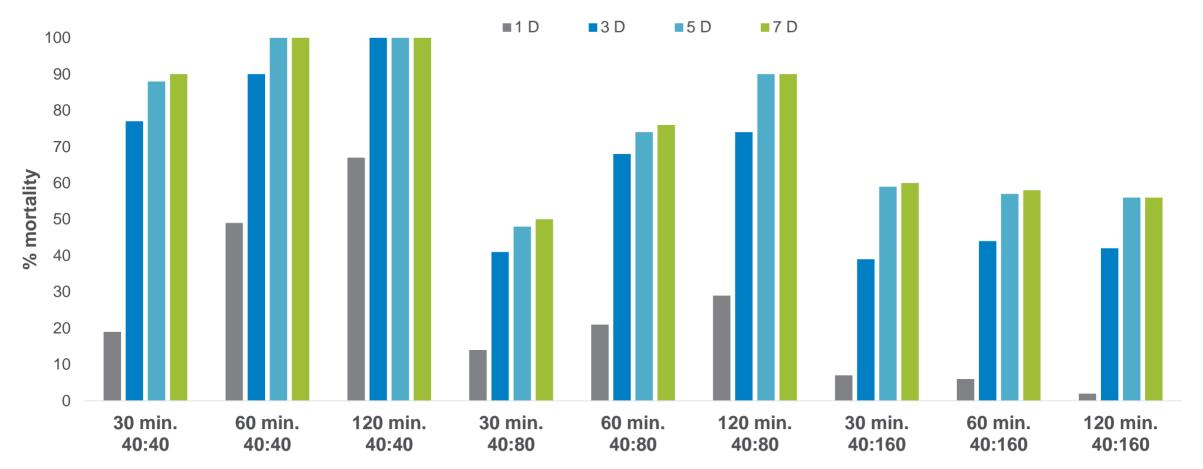
PR097609_GBuc





Mortality in recipient OHA after mixing with donor ants at different ratios

Donor: recipient ratio - donors dead at 1 day with Advion® WDG (0.10%)



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PR097609 GBuc





Can Advion WDG be transferred from treated ants to untreated ants?



- ► First group of ants (donors) were exposed to Advion® WDG-treated surface for a set period of time
 - 1, 5, 10 and 30 min., and 24 hours
- After exposure period, donor ants were moved to another test arena holding untreated ants (recipients)
 - Total of 20 donor ants were mixed with 20 recipient ants
- Mortality of recipient ants was recorded over time

PR106301_Saran

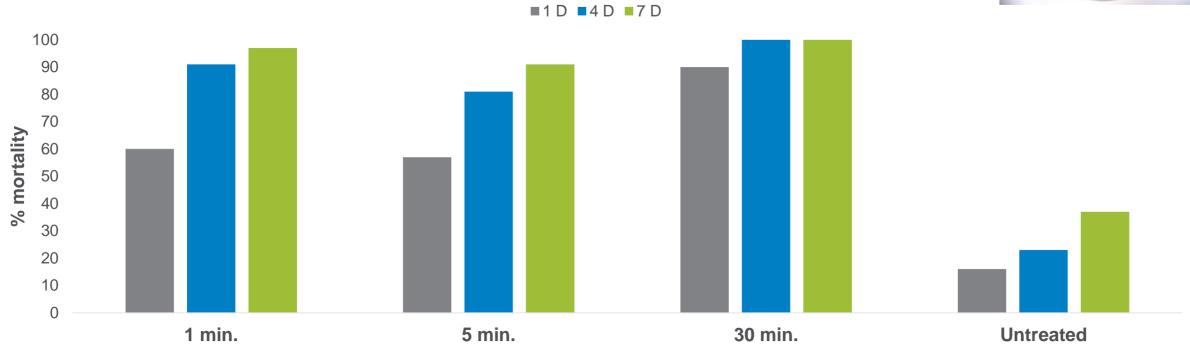




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Transfer of Advion® WDG in ants on ceramic tile

Recipient ants experience high mortality after 30 minutes exposure with donor ants



Exposure time of "donor" ants

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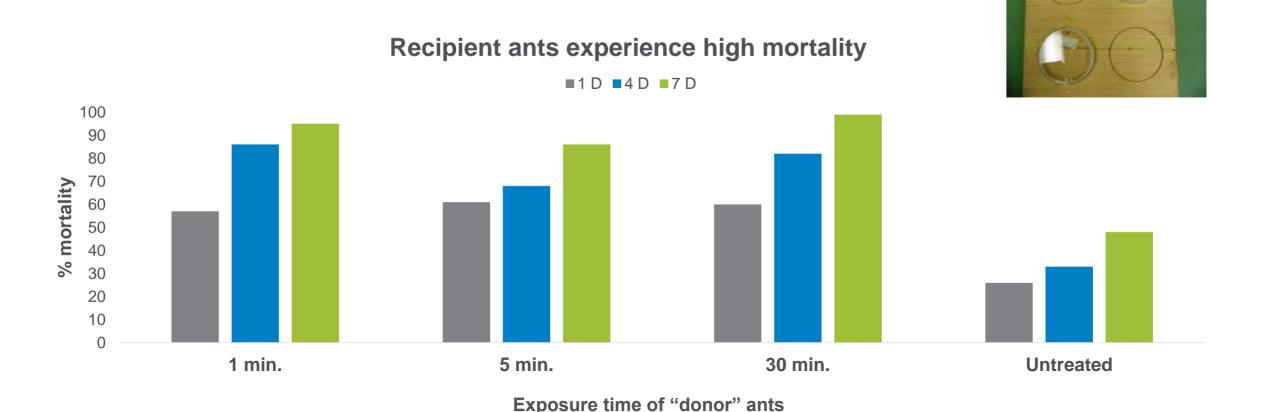
PR106301 Saran





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Transfer of Advion® WDG in ants on unpainted wood



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PR106301 Saran





Evaluation of perimeter spray formulations for control of odorous house ants (OHAs) in the field and laboratory



- Virginia Tech, Department of Entomology, Blacksburg, Virginia, 24061
 - D. M. Miller, H.R. Allen and T.C. McCoy

PR097629_Miller





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Simulated crawlspace surface assays





- ► Testing residual activity of:
 - Advion® WDG 0.05%
 - Advion WDG 0.10%
 - Talstar® 0.03%
 - Termidor® SC 0.06%
- ▶ 3 types of surfaces:
 - Wood
 - Brick
 - Tile
- ► Surfaces aged outdoors for 1 hour, 7 days or 30 days

PR097629_Miller





Residual activity of sprayable insecticides



- ▶ Treated surfaces were brought indoors for assays
- ▶ 30 OHA ants were placed on each surface
- ► Ants were provided a water source
- ► Each treatment had 4 replications
- ► Mortality recorded at 24, 48 and 72 hours

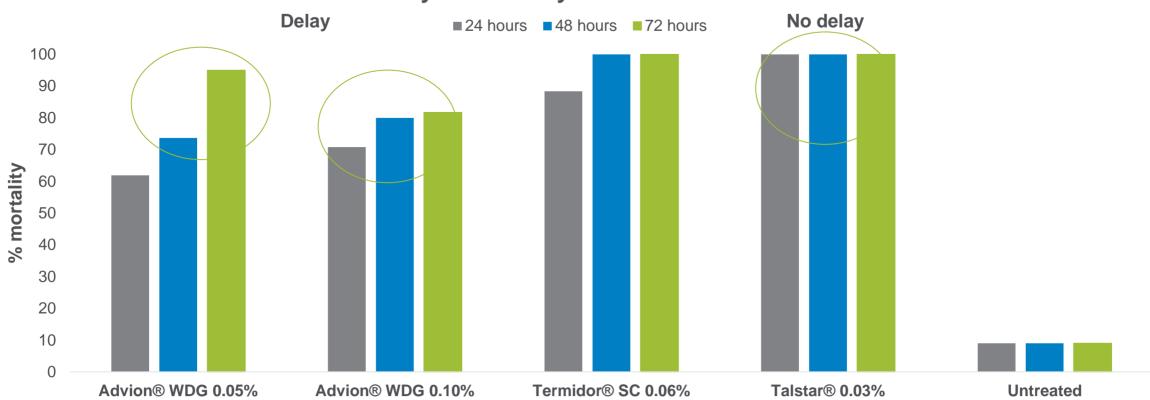
PR097629_Miller





OHA on surfaces: brick (1 hour post-treatment)

Delay in mortality allows for transfer



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PR097629 Miller

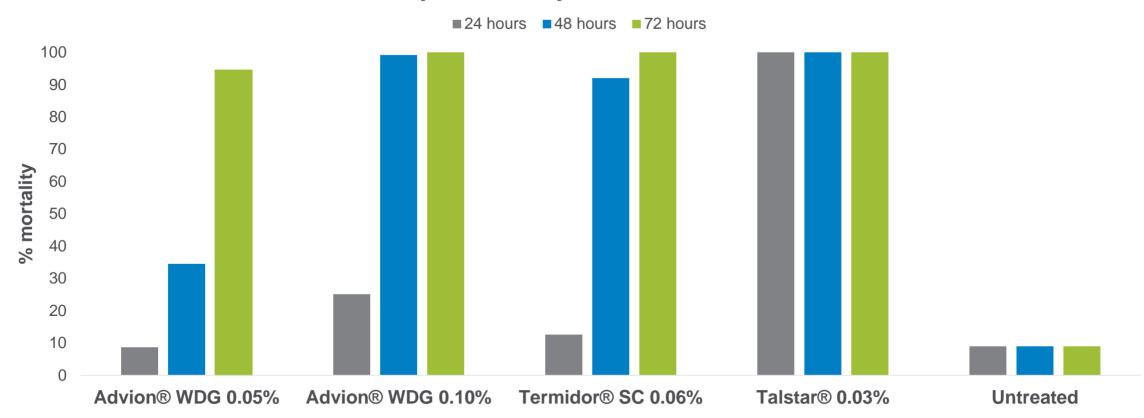




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OHA on surfaces: brick (30 days post-treatment)

Delay in mortality allows for transfer



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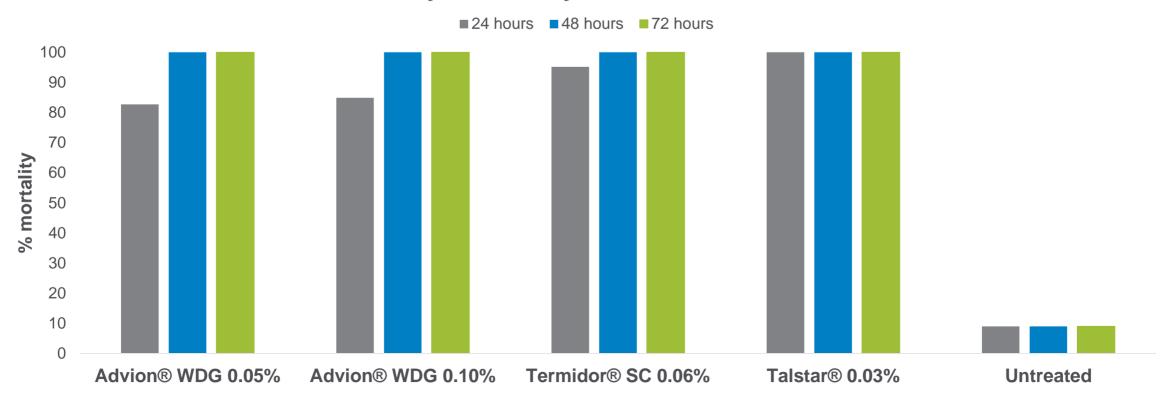
PR097629 Miller





OHA and surfaces: wood (1 hour post-treatment)

Delay in mortality allows for transfer



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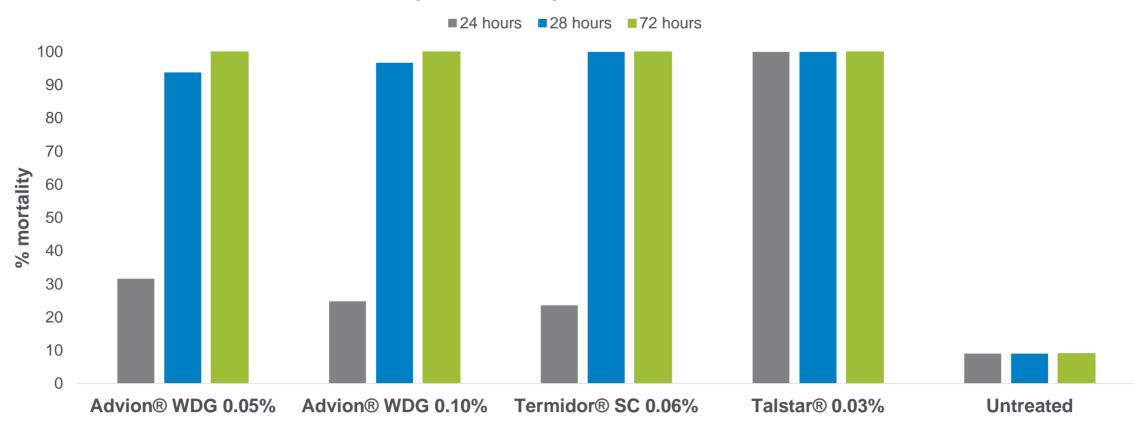
PR097629 Miller





OHA on surfaces: wood (30 days post-treatment)

Delay in mortality allows for transfer



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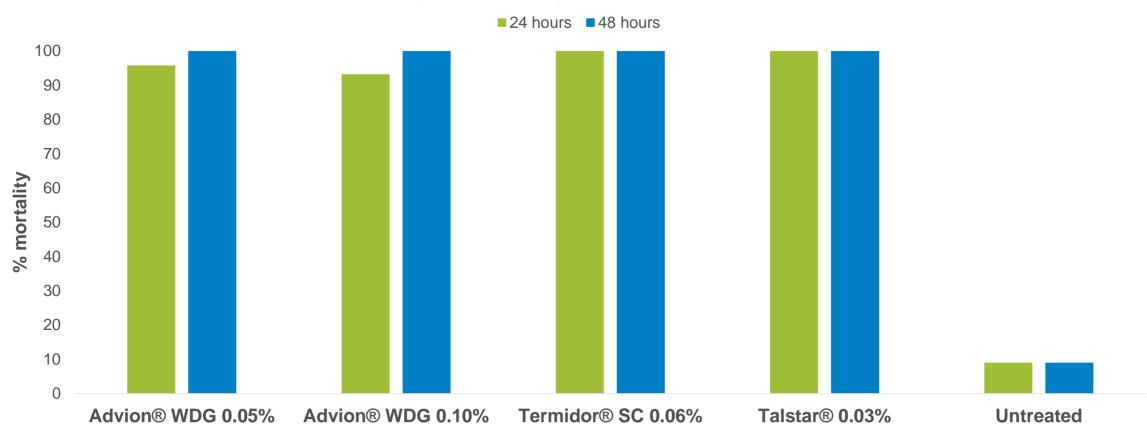
PR097629 Miller





OHA and surfaces: tile (1 hour post-treatment)

Delay in mortality allows for transfer



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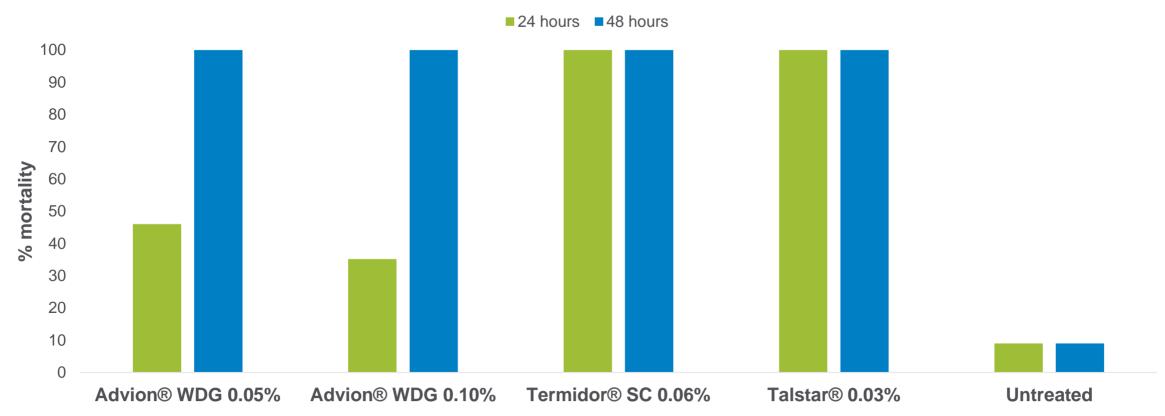
PR097629 Miller





OHA and surfaces: tile (30 days post-treatment)

Delay in mortality allows for transfer



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PR097629 Miller





Conclusions

- All products were effective, even after aging for 30 days on porous surfaces like brick
- ► The repellent pyrethroid did kill all ants on all surfaces within 24 hours
- ► The non-repellents, Advion® WDG and Termidor® SC, were slower acting but remained effective at killing ants on aged surfaces





WEST REGION TRIAL DATA



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Evaluation of liquid spray products for control of the rover ant



- ▶ Dr. Paul Baker, University of Arizona
- ▶ Test design
 - 20 rover ants placed on treated tile for 30 min., then moved to untreated surface
 - Mortality of ants recorded to 5 days after removal
 - Treatments:
 - Advion® WDG 0.05% applied 1 gal./1,000 sq. ft.
 - Advion WDG 0.05% applied 2 gal./1,000 sq. ft.
 - Advion WDG 0.05% applied 4 gal./1,000 sq. ft.
 - Termidor® SC 0.06% applied at 1.5 gal./1,000 sq. ft.

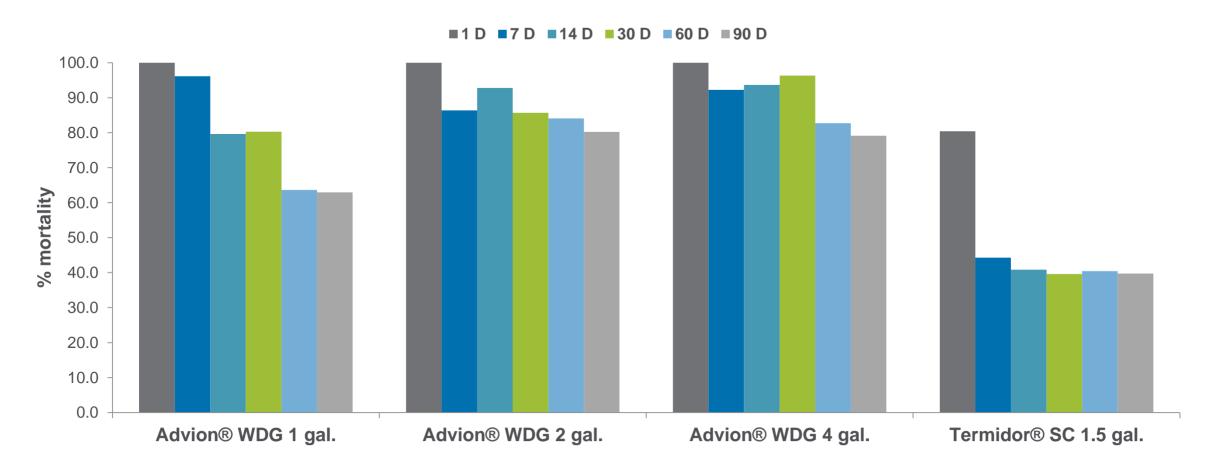
PRO12989_Baker





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Residual control of rover ants on aged surfaces



Performance assessments are based upon results or analysis of public information, field observations and/or internal Syngenta evaluations.

Trials reflect treatment rates commonly recommended in the marketplace.

PRO12989 Baker





How long do ants have to be on treated surface?

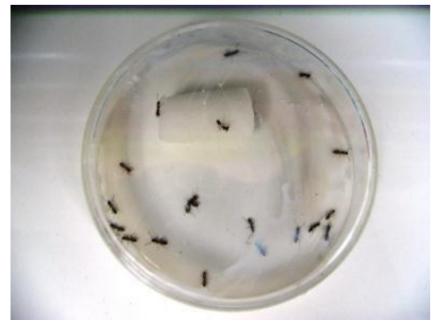
- ► Advion® WDG was applied to surfaces at lowest label rate
 - 1 gal./1,000 sq. ft. = "about to runoff"
 - 0.05% and 0.10%
- ▶ 3 surface types were evaluated:
 - Ceramic tile
 - Unpainted wood
 - Concrete
- ▶ 20 Argentine ants were exposed to treated surfaces for set times and then removed to untreated surface
 - 1 min., 5 min., 10 min., 30 min. and 24 hours

PR106301_Saran





Test setups



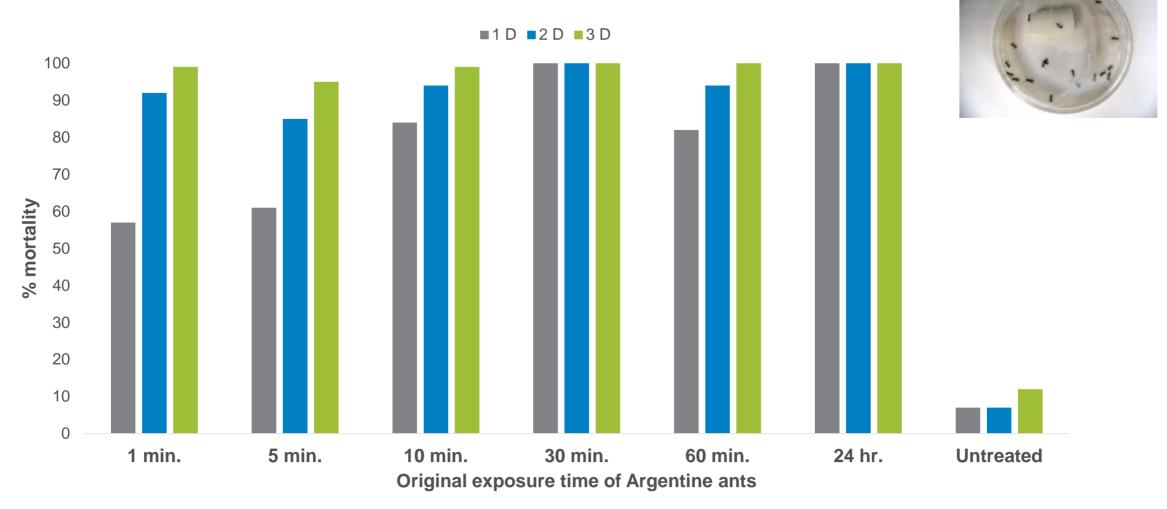




Tile Concrete Wood

PR106301_Saran

Advion® WDG at 0.05% on ceramic tile



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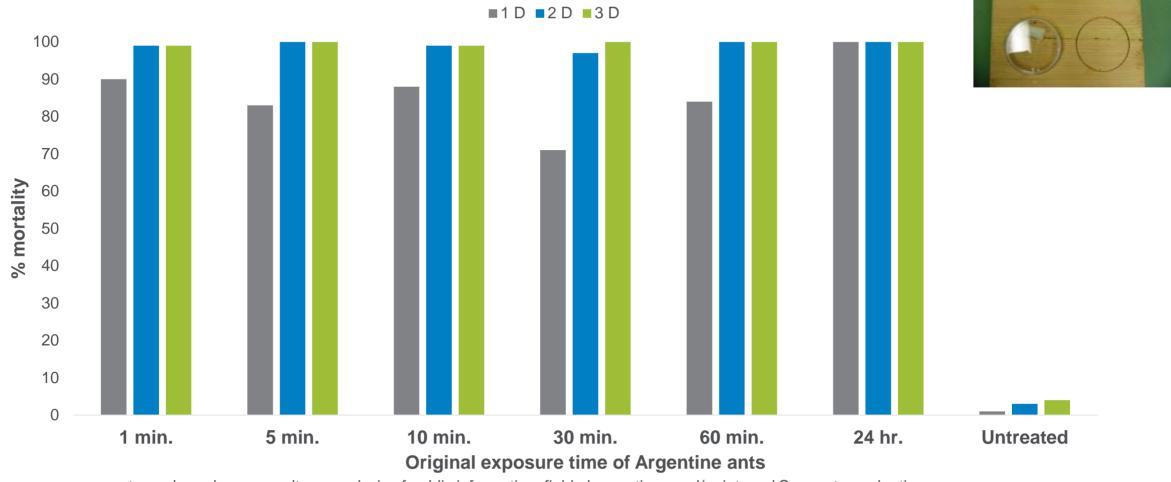
PR106301_Saran







Advion® WDG at 0.05% on unpainted wood



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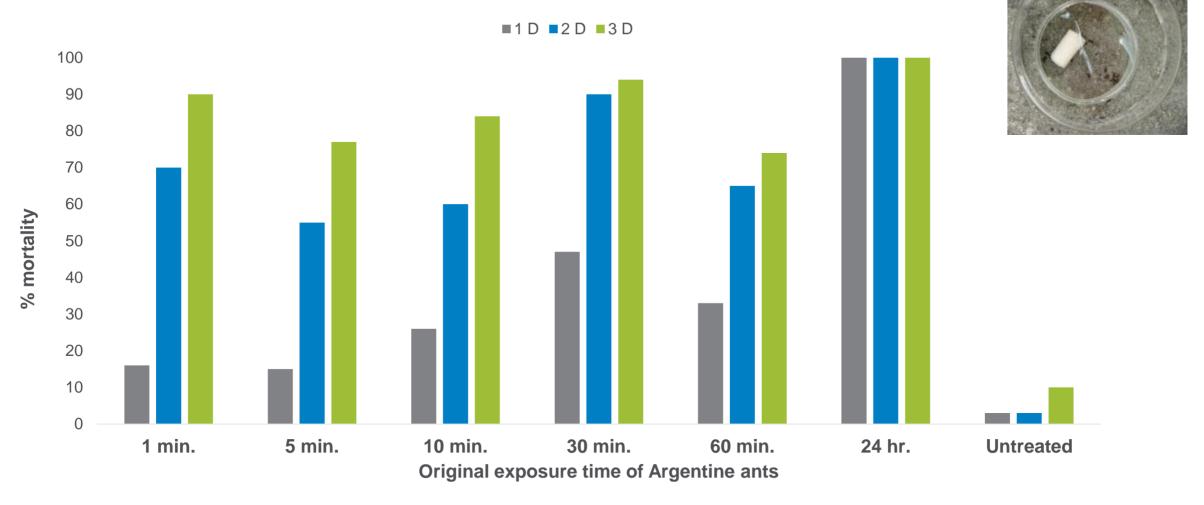
Trials reflect treatment rates commonly recommended in the marketplace.

PR106301_Saran





Advion® WDG at 0.05% on concrete



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PR106301 Saran



2018 Advion WDG laboratory study

- ► Trial objective was to answer the following questions:
 - What is the residual activity of Advion® WDG against German cockroaches?
 - Is the residual activity different on porous vs non-porous surfaces?
 - Is the residual activity different after 30 and 60 days of aging?
 - How does residual performance of Advion WDG compare to common competitive products?
- ▶ Target pest:
 - German cockroach (Blattella germanica)





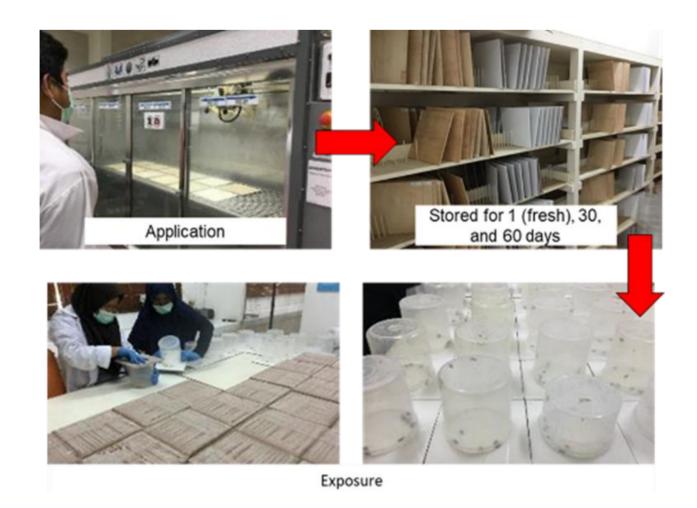
Study design

- Surfaces treated:
 - Glazed tile as non-porous surface
 - Unglazed tile or wood as porous surface
- Insects placed on treated surfaces for 1 hour, then removed and placed into clean, untreated container
 - Mixed sex adult sample (50:50) of at least 10 insects per replicate
 - Minimum of 4 replicates per treatment
- Assessments
- Record insect response at 1, 24, 48, 72, and 120 hours after exposure
- Insect response to be recorded as:
 - Alive/healthy
 - Knocked down (at 1 hour only)
 - Dead





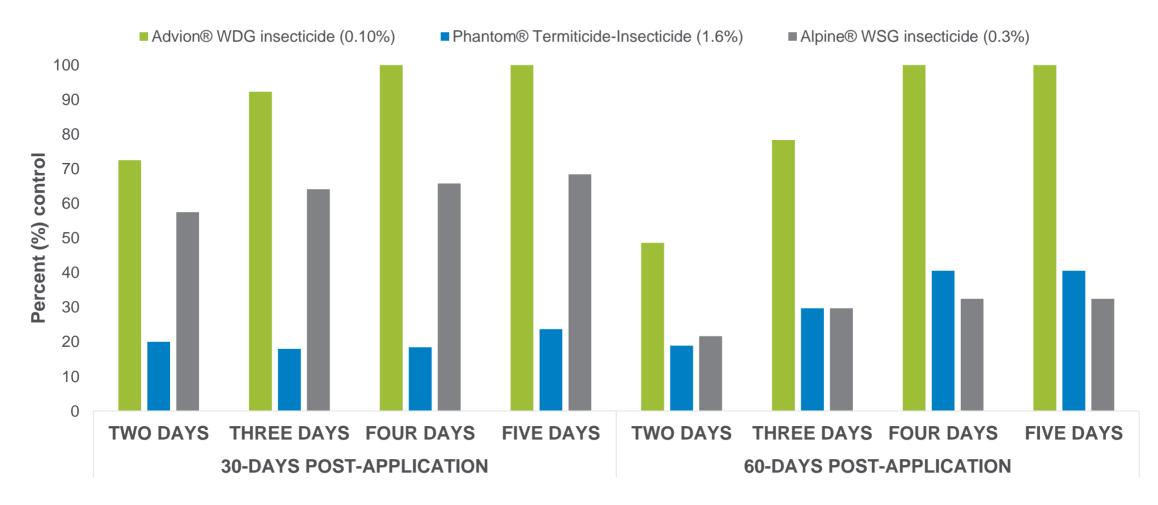
Application using track sprayer and exposure against Blatella germanica





Advion WDG

German cockroach control that outlasts the competition



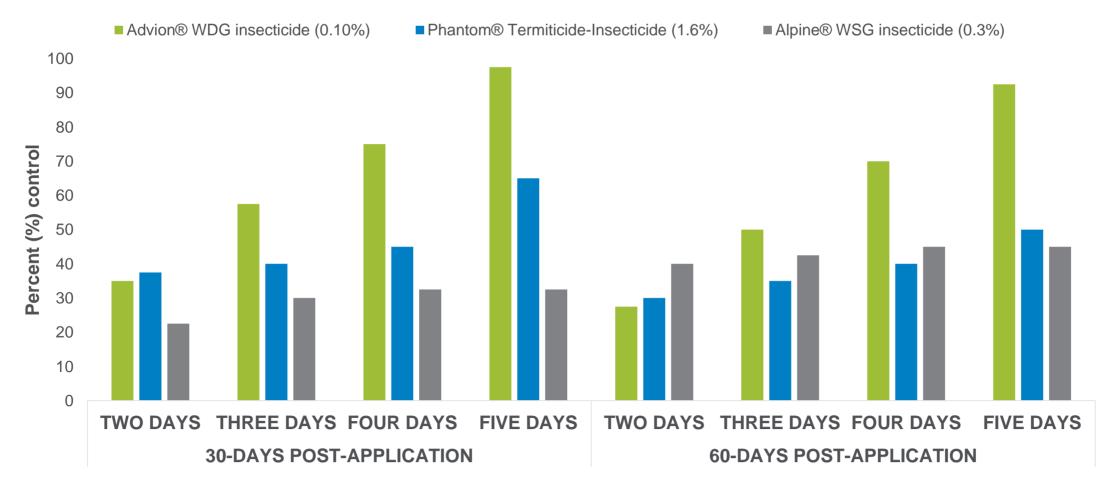
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PPMG18305





Long-lasting control of American cockroaches



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PPMG18306

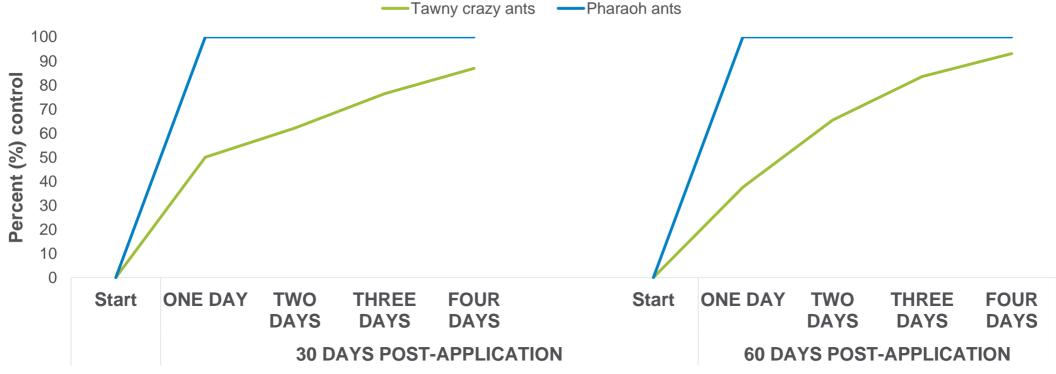




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Residual efficacy of Advion® WDG against tawny crazy ants and pharaoh ants on porous plywood*



*For best results, use a low concentration and high water volume application. Advion WDG can be tank-mixed with other insecticides, such as Demon® Max insecticide, for quick knockdown. Advion WDG applied at 0.10%. Trials conducted on porous plywood to assess residual control. Performance assessments are based upon results or analysis of public information, field observations and/or internal Syngenta evaluations. Trials reflect treatment rates commonly second processing the commonded in the marketplace.

Source: PPMG18303 and PPMG18304, 2018







PACKAGING AND PRICING



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Advion WDG single dose



- ► Case contains 50 x 0.33 oz. packets
- Packaging designed for easy mixing (1 finished gal.)
- ► The **MetaActive**[™] **effect** differentiates between target insects and non-target organisms
- Can be used as a standalone treatment, or used in conjunction with Advion® and Optigard® brand gel baits



Advion WDG 20 x 5 x 0.33oz. packets

- Can be used in commercial areas, including food-handling establishments, and in residential areas
- ► The **MetaActive[™] effect** differentiates between target insects and non-target organisms
- ► Can be used as a standalone treatment, or used in conjunction with Advion® and Optigard® brand gel baits
- ▶ 1 carton contains 5 0.33 oz. packets, where each packet is designed for easy mixing (1 finished gal.); can by purchased by the carton or a full case of 20 cartons (total of 100 packets)

Price	Base rebate
\$ 14.00	\$ 0.75

Net cost per level					
Partner	Silver	Gold	Platinum	Diamond	
\$ 13.25	\$ 13.10	\$ 12.95	\$ 12.80	\$ 12.65	







Advion WDG 16.5 oz. bottle

- ► Can be used in commercial areas, including food-handling establishments, and in residential areas
- ► The **MetaActive**[™] **effect** differentiates between target insects and non-target organisms
- Can be used as a standalone treatment, or used in conjunction with Advion® and Optigard® brand gel baits
- ▶ 16.5 oz. bottle with measuring cone for high-volume applications; 4 bottles per case, or can be purchased by the bottle

Price	Base rebate
\$ 120.00	\$ 7.50

Net cost per level					
Partner	Silver	Gold	Platinum	Diamond	
\$ 112.50	\$ 111.00	\$ 109.50	\$ 108.00	\$ 106.50	











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Performance assessments are based upon results or analysis of public information, field observations and/or internal Syngenta evaluations.

Trial reflects treatment rates commonly recommended in the marketplace.

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