

# WHY GREEN WAY® LIQUID ANT KILLING BAIT WORKS: THE SCIENCE OF COLONY CONTROL



Innovative  
Pest Control  
Products

## Turning Ant Biology into a Control Strategy

**Green Way® Liquid Ant Killing Bait** is designed around the biology of ants. Ants are eusocial, meaning the colony functions as a coordinated superorganism. Only a small fraction of workers forage, yet they feed the entire colony through trophallaxis—the liquid food-sharing behavior that delivers nutrients to workers, brood, and queens. Because this shared network sustains the colony, targeting the workers you see has minimal impact on the colony you don't. In some cases, relying on contact sprays can even trigger colony budding or trail disruption, making infestations harder to eliminate.

The **Green Way®** approach leverages the ants' natural food-sharing network—providing a liquid bait they eagerly collect and distribute long before any mortality begins. This allows the active ingredient to move deep into the nest and reach workers, brood, and queens, achieving true colony-level elimination that sprays simply can't match.

SPRAYS	BAITS
Only kills foragers	Feeds colony via trophallaxis
Causes colony budding or relocation	Reaches queen and brood
Temporary suppression	True colony elimination
Harms beneficial insects	Targets pests specifically

### Why Liquid Baiting Works

- Ants share food through trophallaxis — a liquid food exchange that feeds the entire colony, including the queen.
- Most pest ants rely on honeydew (from aphids and scales) as a primary energy source.
- Only ~10% of ants forage — so sprays kill few, while liquid bait spreads through the colony.

*Translation: To end an infestation, you must feed the colony, not fight the foragers.*

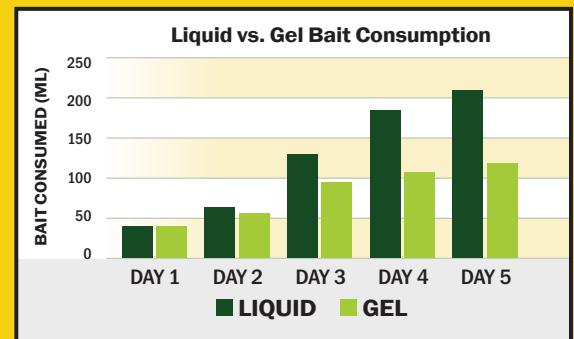
## Continuous Feeding: The Key to Colony Elimination

Ant colonies can only be eliminated when foragers keep feeding long enough to deliver lethal doses throughout the nest. **Green Way® Liquid Ant Killing Bait** is designed for that continuous feeding cycle—matching what ants naturally eat and staying palatable for the entire duration of colony activity.

### Green Way® Liquid Advantage

- Liquids outperform gels or solids—ants feed up to 5x faster and consume 4x more, maximizing toxicant transfer through the colony.
- Natural form = natural feeding—mimics honeydew and nectar, the sugars ants instinctively seek and share through trophallaxis.
- Optimized stability—preserved to resist mold and spoilage for months, ensuring uninterrupted feeding.
- Non-repellent formulation—encourages repeat feeding and full distribution before any decline begins.

*The more they eat, the more they share—and the faster the colony collapses.*



Argentine ant trials show workers consume 4x more and feed 5x faster on liquid bait than gels of equal nutrition.



## The Power of Boron Chemistry

At the core of **Green Way® Liquid Ant Killing Bait** baits is Disodium Octaborate Tetrahydrate (DOT)—a highly soluble, naturally derived borate that works by disrupting nutrient absorption rather than the nervous system. This allows ants to feed continuously while sharing the bait with nestmates with no behavioral alarm, ensuring colony-wide transfer before mortality begins. DOT's chemistry delivers high solubility, long-term stability, and low repellency, supporting consistent field performance with minimal environmental impact.

### How DOT Chemistry Drives Green Way® Liquid Ant Killing Bait Performance

- **Low-toxicity mineral:** professional-grade control with a safety profile similar to borax or boric acid.
- **Mode of action:** disrupts digestion—not the nervous system—so ants continue feeding and sharing before dying.
- **High solubility and stability:** DOT stays dissolved, doesn't crystallize or separate—keeping bait palatable longer.
- **Optimized boron availability:** twice the available boron of borax at a neutral pH, maintaining non-repellent behavior while increasing efficacy.
- **Colony-wide impact:** consistent feeding ensures DOT reaches queens and brood, ending reproduction and colony sustainability.

Boron Source	Relative Boron Power	Repellency	Notes
Sodium Tetraborate (Borax)	1X	Low	Common but less effective
Boric Acid	1.8X	Moderate at >1%	Historically used
Disodium Octaborate Tetrahydrate [DOT]	2X	Minimal	Active ingredient in Green Way® & Gourmet®

DOT delivers twice the available boron of borax while maintaining neutral pH and low repellency, resulting in more consistent feeding for faster colony suppression (Klotz et al., 2000).

## Optimized Delay for Complete Colony Elimination

Borate baits don't kill fast—they *kill completely*. **Green Way® Liquid Ant Killing Bait's** optimized-delay formula allows ants to feed on the bait and spread toxicant throughout the colony before symptoms appear. This controlled timing ensures that the active ingredient reaches every caste—workers, brood, and queens—through natural trophallaxis, achieving full colony collapse without repellency or disruption.

*Timelines for feeding to colony suppression will vary based on ant species and colony size.*



### References

1. **Rust & Reiersen 1991.** Baits for Argentine ants: evaluation of boron compounds as slow-acting toxicants. *J. Econ. Entomol.* 84(1): 77–82.
2. **Klotz et al. 1998.** Field evaluation of borate baits for Argentine ants. *J. Econ. Entomol.* 91(2): 573–578.
3. **Warner & Scheffrahn 2004.** Colonial decline of ghost ants and white-footed ants using borate liquid baits. *Florida Entomologist* 87(4): 461–466.
4. **Klotz et al. 1998 and Warner & Scheffrahn 2004.** — Continuous bait access produced measurable colony decline within 2–4 weeks. (See full citations under item 1.)
5. **Buczowski & Bennett 2009.** Colony-level effects of slow-acting toxicants in ant baiting. *J. Econ. Entomol.* 102(2): 483–490.
6. **Stewart et al. 2012.** Field performance of borate-based baits in multi-queen colonies. *J. Econ. Entomol.* 105(2): 509–517.
7. **Rust & Klotz 2002.** Advances in the management of social insects of urban importance. *Annu. Rev. Entomol.* 47: 201–224.



Visit [www.antcafe.com](http://www.antcafe.com) for additional information and resources, or scan the QR code to see our product catalog. Additionally, you can reach us at **1.561.483.4997**

