

# Why EthylBloc™ ?

## PROTECTING PLANTS AND PROFITS

**As long as commercial horticulture has been around, supply chain partners have battled ethylene-induced damage and loss.**

Found in almost all flowers and plants, ethylene gas supports many good things, like flowering, fruiting and ripening. But it's also behind premature deterioration. Research shows ethylene damage such as accelerated flower aging, leaf yellowing, and foliage, flower and bud drop can constitute up to 30% of shrink — with margins already tight.

Here at Oasis Grower Solutions, we're focused on solving real-world problems with grower-driven innovations — like EthylBloc™. From growers to retailers to end consumers, everyone suffers when ethylene hurts plant quality and shelf life. But with EthylBloc™ ethylene-action inhibitor, high-quality plants maintain their quality through transport, at retail and beyond. Plants stay protected, and so do customer relationships and profits.



Environmentally friendly. Worker-safe. EPA-approved. EthylBloc™ checks all the boxes. It's the unsurpassed ethylene management you need. Born out of diligent research, including an industry-changing contribution by one of our Smithers-Oasis colleagues, EthylBloc™ has proven itself for decades. You can treat everything from loaded in-transit truck trailers to the smallest e-commerce box shipments — and rest easy and enjoy the ROI when you do.

### B.E. (Before EthylBloc™)

Until EthylBloc™ was invented, horticulture and floriculture industry options to circumvent ethylene-related shrink were limited at best. To make matters worse, equipment and conditions that define modern commercial production, transport and storage add ethylene to the environment and amplify its negative impact. That makes delivering quality plants, flowers, vegetative cuttings or bulbs even tougher.

Through the years, anti-ethylene options have spanned ethylene scrubbers focused on the surrounding environment, products to inhibit ethylene production in plants, and products that inhibit ethylene's action. Commercial horticulture applications of products containing silver thiosulfate date back to the 1970s. But heavy metals such as silver have a set of problems all their own.

Fortunately, not everyone was content with heavy-metal solutions to horticulture's ethylene problem. In the 1980s, industry-focused North Carolina State University (NCSU) researchers began studying ethylene, seeking new ways to minimize ethylene sensitivity and maintain plant and flower quality through retail sell-through to consumers' homes.

## Industry-Driven Solutions

The NCSU research led to the development of a compound, structurally very similar to ethylene, destined to become the active ingredient in EthylBloc™. Known as 1-methylcyclopropene or 1-MCP for short, it worked naturally with plants by binding their ethylene receptors so that ethylene gas couldn't lock into those receptor sites.

The researchers knew they had something very special, but they needed a partner to further develop 1-MCP and bring it to commercial producers in an impactful, commercially viable way. That's when the soon-to-be inventor of EthylBloc™ stepped in — our colleague Jim Daly, now Smithers-Oasis VP of Global FloraLife, Oasis Grower Solutions, and Research.

In a major contribution to the horticulture and floriculture industries, Jim developed a carrier for 1-MCP — a cyclodextrin-based powder that, when wetted, would slowly release 1-MCP to block plants' ethylene receptor sites. With Jim's contribution, 1-MCP went from a ground-breaking development without a practical delivery system to an environmentally friendly, worker-safe product that could benefit every grower and retailer, large or small.



## EthylBloc™ Today

From sachets designed to tuck into tiny shipping boxes and trolley trays to truck kits for large containers and spaces, EthylBloc™ can help you safeguard your shipments and your margins — and keep your customers happy, too. From tulip bulbs, roses and orchids to foliage plants and vegetative cuttings, EthylBloc™ delivers practical, cost-effective ethylene protection that's safe and easy to use.

Why wait? Make EthylBloc™ an integral part of your quality management system this year. Let us tell you more about how EthylBloc™ can help you reduce costly shrink and maintain plant and flower quality from your dock through retail to consumer homes.

We're Oasis Grower Solutions. Propagating Innovation. It's what we do.



Jim Daly, Smithers-Oasis VP of Global FloraLife, Oasis Grower Solutions, and Research