

# ROOT RESCUE

Obtego Fungicide and Plant Symbiont from SePRO controls soil-borne diseases while enhancing rooting.



An untreated plug of *Verbena Royale Romance* (left) and a plug of *Royale Romance* treated with 5 ounces of Obtego per 100 gallons. Image taken three weeks after treatment.

Photos courtesy of SePRO

Like the clownfish and the sea anemone, plants and Obtego Fungicide and Plant Symbiont from SePRO have a mutualistic relationship.

“Obtego benefits by having a host, or root structure to colonize and proliferate on,” says Mark Brotherton, Portfolio Leader at SePRO. “The benefit to the plant is, through its natural biology, [Obtego] protects the plant, and kills harmful fungi that would normally attack the roots.”

For growers, the benefits of the newly released Obtego — labeled for ornamentals and vegetables — are twofold, Brotherton says. As a fungicide, Obtego controls soil-borne diseases such as *Rhizoctonia*, *Pythium*, *Phytophthora*, *Fusarium* and *Thielaviopsis*. “But at the same time,” he says, “it will help with nutrient and water uptake, and enhance the overall root system.”

The biological's plant symbiont functions, Brotherton says, are owed to the presence of two different *Trichoderma* species — *Trichoderma asperellum* strain ICC 080 and *Trichoderma gamsii* strain ICC 012. These fungi colonize in and around a plant's root system and protect it. Compared to untreated plants, crops treated with Obtego grow healthier and more robust root systems.

## Promising trials

Obtego recently hit the market after SePRO saw successful trials throughout the United States, says C.J. Coy, Technical Specialist at SePRO.

“The buzz has been great about Obtego,” Coy says. “[I have] been out trialing products with growers, and there's nothing but praise for it up to this point.”

Growers who have trialed Obtego have consistently noticed improved root mass, Coy says. There has also been another benefit. “With all these trials I've done, there hasn't been any disease present,” he says.

## Four modes of action

Obtego protects plants through four unique modes-of-action: preventative biocontrol, direct fungicide and parasitism, competition and plant defense activation.

The first mode-of-action, preventative biocontrol, indicates that Obtego inhabits space in the soil and rhizosphere that would otherwise be occupied by potentially harmful fungi, Brotherton says. Through another mode-of-action, direct fungicide and parasitism, Obtego releases enzymes that break down the cell walls of pathogenic fungi. A third mode of action, active competition, can be described by Obtego winning the natural battle for water and nutrients versus harmful fungi. The final mode-of-action, plant defense activation, allows Obtego to trigger the plant's natural defense systems and help it preemptively fight diseases in the event that they occur.

## A low chance for disease resistance

Because Obtego utilizes four different modes of action, the likelihood is very low that diseases will develop resistance to it, Brotherton says. However, some growers like to rotate Obtego with other products. “You can use it in combination with synthetic fungicides or even other biofungicides for that matter, too, to strengthen your control and potentially expand the spectrum of control,” he says.

Growers with existing disease infections should use synthetic products to eradicate anything they might have, Brotherton says. Then, after the plants are disease-free, they could implement Obtego for continued protection.

## Effective in a variety of conditions

Growers will find that the success of Obtego will fit nicely within the environments growers are accustomed to, Brotherton says. “In all environments of active plant growth and soil properties, it's highly active metabolically,” he says.

“What's unique about Obtego is that it's always active,” Brotherton says. “It's working in a wide range of temperatures, a wide range of pHs, soil moisture, soil types.”

## Numerous application methods

Growers can use several application methods to apply Obtego, Brotherton says. These include a drench, dip, media incorporation and chemigation through irrigation system. “The flexibility of application allowed with Obtego makes it easy for growers to use,” he says.

With Obtego, growers can maintain a healthy and dense root system. And coming from the turf industry, Coy says he knows all about how a plant's above-ground growth rests in that root system, and he relays that to growers. “I say, ‘Let's get some healthy roots, because if it's taking up water better, it's taking up nutrients, it's taking up pesticides, that's only going to give you a healthier plant on top,’” he says.