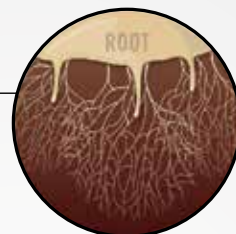


GO WHERE ROOTS CAN'T

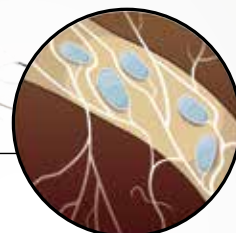


NEW



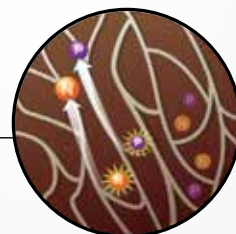
ROOT MASS EXPANSION

Hyphae attach to root hairs and access areas inaccessible to big roots.



DROUGHT TOLERANCE

Vesicles are created, storing resources until needed by the plant.



NUTRIENT ACCESS AND UPTAKE

Hyphae can access small soil spaces that root hairs can't. They also produce enzymes to release nutrients that are tied up in the soil.

Applied in-furrow, MycoApply® EndoPrime™ uses four unique species of mycorrhizal fungi to help improve nutrient efficiency, drought tolerance and yield potential. Keep your advantage – nurture your soil today to help ensure future harvests will be just as bountiful.

Contact your local retailer or visit Valent.com/EndoPrime to learn more.



Products That Work, From People Who Care® | www.valent.com | 800-6-VALENT (682-5368)
Always read and follow label instructions.

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Sponsored Content

A Stronger Foundation for Better Yield

A strong root system is the foundation for a healthy plant. Roots are the conduit between the soil and aboveground plant growth. To develop a healthy root system, roots need access to as much of the soil volume as possible; the more water and nutrients the roots can access, the more the plant can absorb.

“Early in the growing season, the root system is transporting water and nutrients to maintain healthy plant growth and creating the ability for the plant to harvest sunlight and promote growth throughout the season,” said Matt Ruark, associate professor of soil science at the University of Wisconsin–Madison. “But remember, one-third of the nutrients a corn plant takes up occur after the vegetative stage is over, so there is still quite a bit of nutrient uptake that occurs later in the growing season after the beginning of grain fill.”

According to Ruark, maintaining a strong, healthy root system throughout the entire growing season is vital to achieving high yields.

How MycoApply® EndoPrime™ Works in the Soil

MycoApply® EndoPrime™ is a plant and soil enhancement product that contains mycorrhizae, which are beneficial fungi that naturally exist in the soil.

Key areas mycorrhizae impact:

- Crop yield
- Root and shoot biomass
- Soil health
- N, P, K and some trace mineral uptake
- Water uptake during moisture stress
- Plant performance in different soil environments

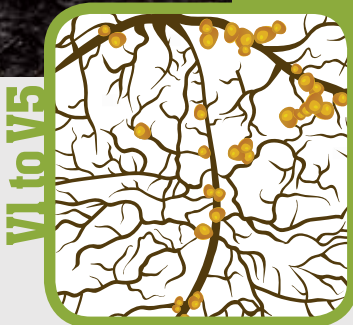
Mycorrhizae establish a symbiotic relationship with the plant to better acquire, absorb and transport nutrients from the soil. It also helps the plant mitigate the effects of many environmental stresses the plant encounters throughout its growth stages.

Mycorrhizae grow microscopic structures called hyphae. Hyphae can grow out of the colonized plant root to help look for nutrients and water in the soil, navigating tiny spaces in the soil. Once the hyphae reach the needed nutrients and water, they transport those essentials back to the plant to utilize for its growth.

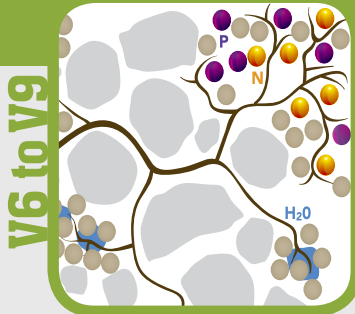
“Because the mycorrhizae bring more nutrients that are otherwise limiting to the plant, it helps with overall above- and belowground growth — establishing a healthier plant and contributing to a better yield,” said Avi Alcalá, research scientist at Valent U.S.A.



MycoApply EndoPrime spores germinate to build a symbiotic relationship with the crop roots



Nutrient availability supports nodal root development and a healthy stand



Support of nutrient and water availability during the rapid growth phase

Growing a Stronger Root System

Recently, a shift in focus has occurred concerning what’s going on below ground with soil and root health as well as nutrient uptake.

“Five years ago, I learned about mycorrhizae and started to conduct field trial research with very positive results,” said Brady Krchnavy, president of New Age Farming LLC in Durbin, N.D., who then began working with a network of retailers he supports with products and education. “Now, my farmers average a 2:1 to 3:1 return on investment due to the root system growth and water and nutrient uptake as well as storage capabilities.”

According to Krchnavy, the four beneficial mycorrhizae species contained in MycoApply EndoPrime help reduce plant stress by helping get the plant the resources it needs when it needs them.

“Every stage of plant growth needs certain macro- and micronutrients, then the robust root system is able to deliver,” he said. “I’ve done tissue samples that show every single beneficial nutrient in a plant is higher with mycorrhizae, which tells you the product is doing its job.”

MycoApply EndoPrime protects corn from drought stress

Morlett Farm Trial 2014



Untreated

Treated

MycoApply EndoPrime is applied in-furrow at planting, and then the spores germinate with the corn roots, creating a network of hyphae that extend the root system.

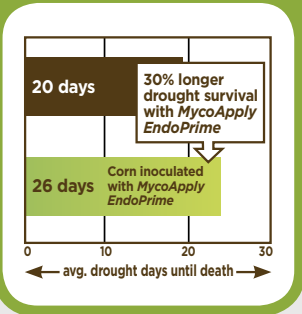
Those hyphae reach nutrients and water outside of the root absorption area as well as in small spaces inaccessible to even fine root hairs.

“Imagine a typical corn root by taking a small Christmas tree, removing all the pine needles and sticking it in the ground upside down,” he said. “When using MycoApply EndoPrime, put all the pine needles back on, and that’s what your corn root system looks like. When I dig up farmers’ corn plants treated with MycoApply [EndoPrime], I see a root mass and surface area that has expanded significantly, giving access to more water and nutrients.”

Now, my farmers average a 2:1 to 3:1 return on investment due to the root system growth and water and nutrient uptake as well as storage capabilities.

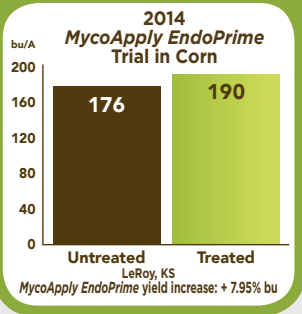
Brady Krchnavy, President, New Age Farming LLC, Durbin, North Dakota

V10 to V12



Helps reduce plant stress and allows for adequate nutrient levels to maximize yield potential

V12 to V15



As plant nears critical pollination stage, maximizes water and nutrient availability for yield determination

R1 to R5

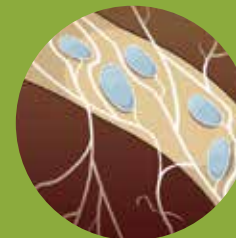


Helps support consistent moisture for seed set and adequate nutrients for kernel size and quality

Root Mass Expansion
Hyphae attach to root hairs and access areas inaccessible to big roots.



Drought Tolerance
Vesicles are created, storing resources until needed by the plant.



Nutrient Access and Uptake
Hyphae can access small soil spaces that root hairs can't. They also produce enzymes to release nutrients that are tied up in the soil.

