



October 2025 NEWSLETTER!!

SOUTHERN RUST AND PRODUCTS EARTHGEN215, LLC DISTRIBUTES!!!

Impact of Southern Rust and Biological Products EarthGen215, LLC Markets on Corn Fields

Southern Rust in Iowa and Minnesota

In 2025, numerous corn fields across Iowa and Minnesota have been infected with Southern rust, a foliar disease known to cause significant reductions in corn yields.

The development and spread of Southern rust this year has been fueled by warm to

hot temperatures and heightened humidity, both resulting from above-average rainfall in the region.



Symptoms and Effects of Southern Rust

Southern rust manifests as small, circular or oval lesions predominantly on the upper surfaces of corn leaves. These lesions are typically light orange to cinnamon in color. The presence of these lesions decreases the leaf surface area available for photosynthesis, leading to reduced efficiency in this vital process. As a result, affected corn often experiences premature dry-down and lower kernel weights.

Comparison of Corn Fields: ECS-Treated vs. Untreated

The corn field depicted to the right has been consistently treated with the Biological Products EarthGen215 distributes at or above recommended rates for over twelve consecutive years.

Due to high commercial fertilizer prices, the producer used only



the Bio-Stim and H- Energy, each diluted in chlorine-free water for the 2025 season.

This field displays either no visible infection of Southern rust or such minimal presence that it is not readily apparent.

In contrast, the corn field shown below, located less than one-eighth

of a mile from the treated field, has never been treated with the products EarthGen215, LLC is licensed to distribute. This field's top leaves are severely infected with southern rust, causing the photosynthesis processes to shut down weeks prior to the photographs, and the plants are almost completely dried out. The corn kernels appear very small, indicating that the test weight of this crop is likely to be light.

The Importance of Photosynthesis in Corn Growth

Photosynthesis is essential for the growth and maturation of crops

throughout their life cycle. This process takes place within healthy leaves, where sunlight, carbon dioxide (CO₂), and water (H₂O) are converted into photosynthate, a glucose-rich liquid. These nutrients are then distributed throughout the plant.

Phloem, one of the two main transport tissues in vascular plants, moves some of this photosynthate to the roots and other areas, nourishing beneficial organisms in the root zone. These organisms help mineralize soil nutrients, making them accessible for root uptake and assimilation. Water and nutrients absorbed by the roots are transported by the xylem, the second type of transport tissue, which carries these essentials to all parts of the plant.

Long-Term Effects of ECS Biological Products

As illustrated in the picture below, corn growing in fields treated with the Biological Products that EarthGen215, LLC has distributed for years demonstrates a stark contrast to corn in untreated fields. The untreated field on the left of the photo, versus the right, suffers from severe southern rust infection. This infection results in prolonged shutdown of photosynthesis, premature dry-down, and poorly filled kernels.



The image on the following page shows the progression from initial, to severe stages of southern rust infection.

Summary of the Biological Product's Benefits



Consistent application of the Biological Products EarthGen215 distributes over consecutive years supports healthy populations of beneficial soil organisms. These organisms maintain soil humus and structure, promoting improved soil oxygenation and resilience to adverse weather conditions, such as temperature extremes, drought, or excessive precipitation. **Healthier soils in turn support a more robust and effective photosynthesis nutrient cycle.** While synthetic fertilizers and chemicals can disrupt natural cycles, ECS Biological Products complement and enhance the natural functioning of soil, plant, and nutrient cycles.

It is time for the Fall application, and I look forward to serving you!!

Please call me on 850-778-7012 here at the office and I will be happy to customize your order for your acreage. You can also find out more on the product line on our web page www.EarthGen215.com. We are on East Coast time, and the main office is in Tallahassee, Florida. **WE SHIP DIRECTLY TO YOU STRAIGHT FROM OUR MANUFACTURER!!!**

Talk to you soon!!!

Thank you,

Tom

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