

PROTINUS™

SEED NUTRITION PRODUCT

Optimize your sunflower performance with PROTINUS

Getting your sunflower crop off to a good, healthy start is critical to its long-term performance and yield potential. PROTINUS is a unique seed-applied technology scientifically formulated to promote early growth and is proven to improve early-season seedling development.



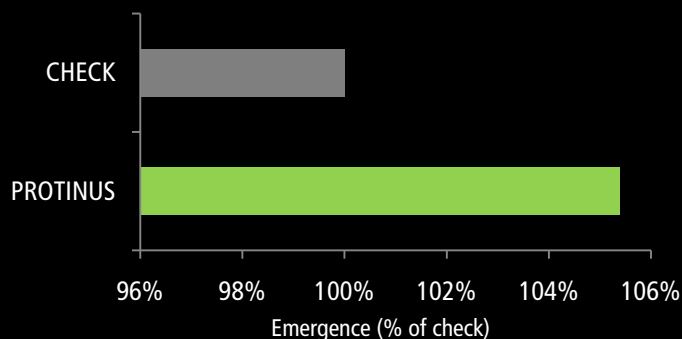
PROTINUS Improves Emergence

Sunflower seed treated with PROTINUS has shown increased early season growth. Seedlings emerge more quickly and evenly, resulting in a more vigorous stand. In addition, seedlings grown under drought stress also exhibited improved emergence and early-season growth when seed was treated with PROTINUS.



Picture 1: Emergence of PROTINUS-treated sunflower seed (on the right) was faster, and was more even compared to the check (left).

PROTINUS impact on sunflower emergence



"Applying PROTINUS to sunflower seed results in more even emergence, faster stand establishment and larger sunflower seedlings."

Mark Goodwin
Director of R&D
Wolf Trax, Inc

Figure 1: Emergence of PROTINUS-treated sunflower seed was 5% better than the check.

Larger, More Vigorous Seedlings

Larger, healthier seedlings are vital to realizing ultimate yield potential. PROTINUS treatment results in seedlings with greater total fresh weight. In addition PROTINUS-treated sunflower seed resulted in seedlings with larger, more developed root systems, compared to the check.

PROTINUS impact on seedling fresh weight in sunflower

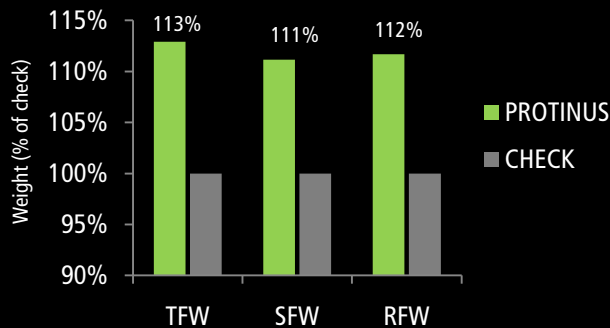


Figure 2: PROTINUS-treated sunflower seed resulted in seedlings with 13% greater total fresh weight (TFW), 11% greater shoot weight (SFW) and 12% greater root weight (RFW) than the check.

PROTINUS impact on root development in sunflower

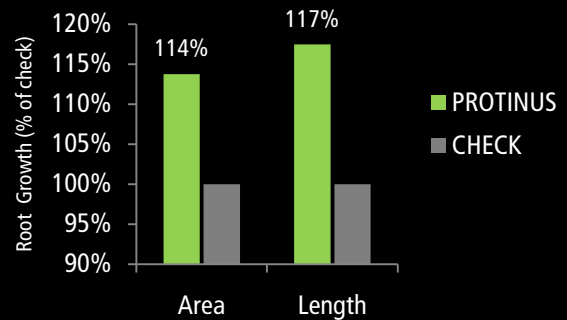


Figure 3: Root systems of PROTINUS-treated sunflower seed are 14% larger (area) and 17% longer (length) than the check.

PROTINUS has been Widely Tested

PROTINUS has been widely tested on a variety of crops including corn, soybeans, cotton, wheat, sunflower, canola, grass, forages and vegetables. Results from hundreds of individual comparisons show that enhanced nutrition delivered directly to the seed through PROTINUS application, results in earlier, more even emergence, and larger root and above-ground plant growth.

PROTINUS is a unique seed applied product scientifically formulated to promote early plant growth and nutrition in agricultural and horticultural crops, and works in the following ways:

- PROTINUS enhances the pH in the micro-zone around the seed, enhancing nutrient availability and optimizing nutrient uptake.
- PROTINUS delivers nutrition directly to the seed. Three key micronutrients important to early plant growth functions – zinc, manganese and iron – are included in the PROTINUS formulation.

For more information about PROTINUS-treated sunflower seed, please contact your Wolf Trax Representative or visit us online at www.wolftrax.com



Because a Healthy Start can make a world of difference.