



LALFIX

DUO SL PROYIELD

Production field near Fargo, ND, June 2018. LALFIX® DUO SL PROYIELD for Soybeans seed treatment applied to the rows on the left of the photo. LALFIX® DUO SL PROYIELD for Soybeans treated plants were visibly more robust at the V2 growth stage, with thicker stems and greener trifoliates.



SOYBEAN



LIQUID



INOCULANT

FEATURES

Two Active Ingredients:

- 2×10^7 *Delftia acidovorans* per ml
- 1×10^{10} *Bradyrhizobium elkanii* per ml

Package Sizes:

- 1 x 400 unit case (45 cases per pallet)
- 4 x 100 unit case (45 cases per pallet)

Easy to use Formulation:

- One package to open (no mixing)
- 0.75 fl oz (22.2 ml) per 140,000 seeds OR 1.5 fl oz per 100 lbs of seed (44.4 ml per 45.4 kg)
- Limited tackiness/bridging
- On-seed life of 90 days

Refer to the website for the latest compatibility information. Refer to the label for in-furrow application details.

Always read and follow label instructions.

Dual Action Liquid Inoculant for Soybeans

LALFIX® DUO SL PROYIELD for Soybeans is a leading formulation containing *Bradyrhizobium elkanii* and *Delftia acidovorans*. Lallemand Plant Care is utilizing two unique strains of *Bradyrhizobium elkanii* to bring soybean growers an innovative inoculant with higher rhizobia survival and competitiveness. In addition, *Delftia* increases root growth, nutrient and water uptake - ultimately leading to enhanced nodulation and nitrogen fixation, early vigor and higher soybean yields.

Modes of Action

Bradyrhizobium elkanii

Two strains for balanced performance

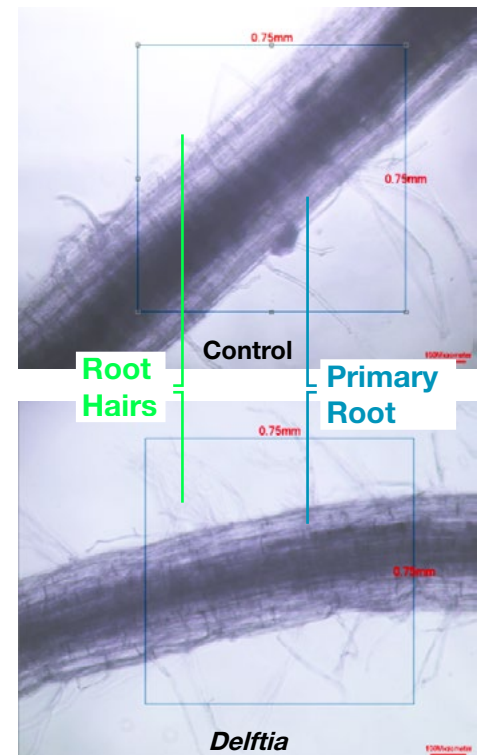
- More N fixation through utilization of nitrogenase enzyme.
- Robust, early nodulation dispersed over the crown and lateral roots compared to competitive inoculants.

Delftia acidovorans

- Stimulates root and root hair development, helping the plant access more water and nutrients.
- Aggressively colonizes roots and out-competes other soil bacteria and fungi.
- Makes more sulfur available to the plant.



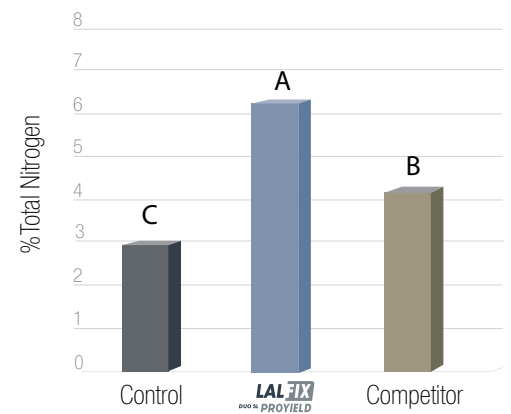
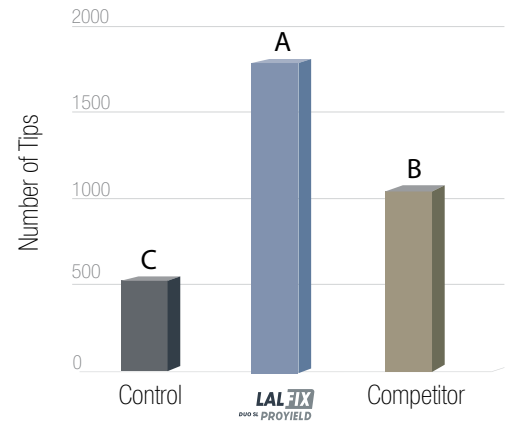
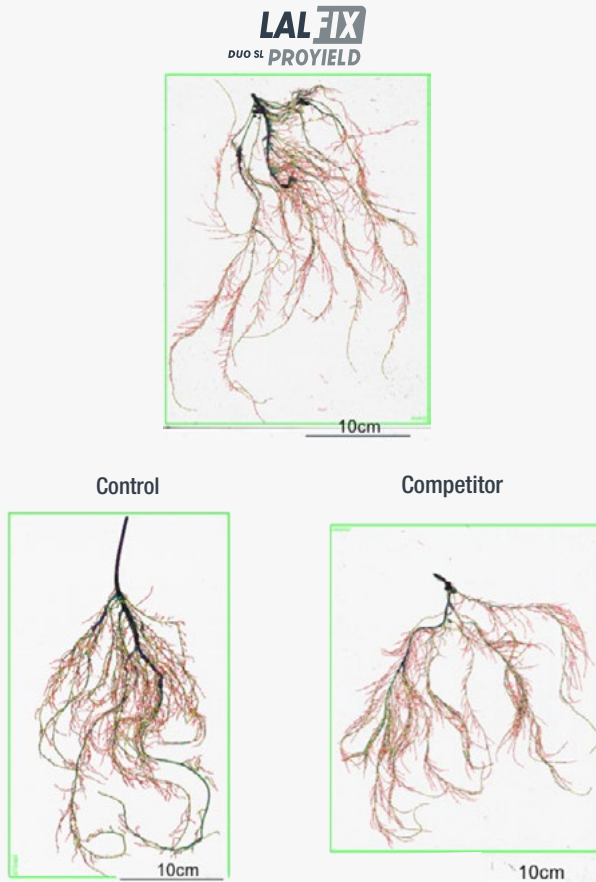
Effects of *Delftia* on Root development



Treatment with *Delftia* produced plants with increased length and numbers of root hairs in comparison to the control. Root hairs are the access points for *Bradyrhizobia* nodulation.

Product Results

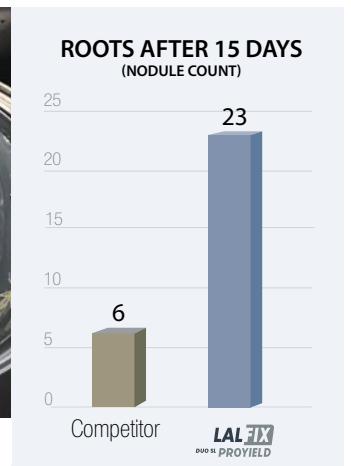
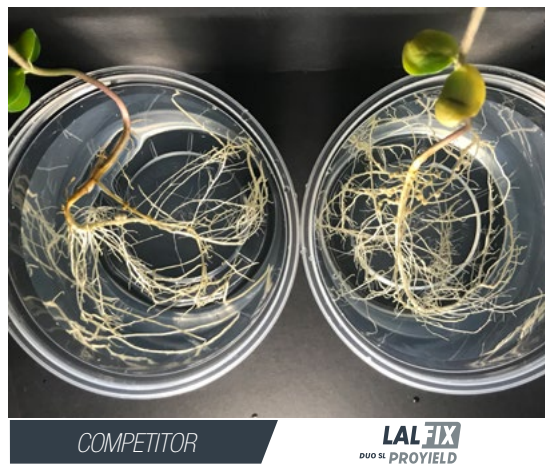
Analysis of Roots



LALFIX® DUO SL PROYIELD treated soybeans had significantly more root tips ($p=0.04$) and total nitrogen ($p=0.0002$) than competitor and control treated soybeans. *Bradyrhizobium elkanii* supplied at least 50% more N, as the only source, over competitive *Bradyrhizobium japonicum* inoculant.



Impact of LALFIX® DUO SL PROYIELD for Soybeans on plant shoot growth and early greening and vigor.



About Lallemand Plant Care

Lallemand Plant Care (LPC) specializes in employing microorganisms including, but not limited to, yeast, bacteria, fungi and plant derivatives for biocontrol (i.e., controlling of harmful insects of microorganisms), biostimulation (i.e., eliciting natural responses) and biofertilization (i.e., enhancing plant nutrition).

Using a "field-led, science-supported" approach, LPC works closely with clients to deliver the right products for the right applications that benefit crops and create better customer experiences.