

UNLOCK YOUR SOIL'S BIOLOGICAL POTENTIAL

Soybean Trial - dry seed treatment

Sabel-X - return on investment 28 to 1 with 26% yield increase

Equates to \$722.50/ha (\$26/ha cost of Sabel-X Hort)



Goal: To assess the benefits of yield increases with Sabel-X Hort dry seed treatment. This low cost input provides an exceptional return on investment, particularly as soybeans are a high value crop.

Sabel-X Endophytic Trichoderma - Breakthrough technology to unlock soil's biological potential

Crops need beneficial microbes in the rhizosphere (root zone) to thrive.

Sabel-X Trichoderma are Endophytic (live inside the plant) and create signals to activate these beneficial microbes.

It is important to activate these rhizosphere microbes because they are focused on keeping the plant in an optimal state of photosynthesis and health, which is critical to maximising the crop's potential.

Sabel-X Trichoderma interact directly with the gene expression of the plant to switch on more genes than the plant alone is able to switch on, which means more rhizosphere microbes are activated than would otherwise be.

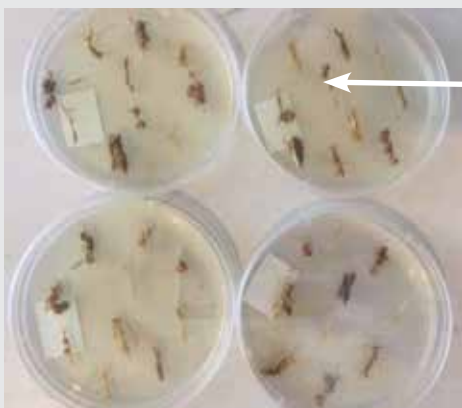
Sabel-X Trichoderma help the plant get more from the soil with the results speaking for themselves. This trial is no exception.

For Soybeans, Sabel-X Trichoderma are also involved in signalling to Endophytic Rhizobium, driving energy to the Rhizobium to pull in more nitrogen to feed the plant. This indirectly drives the plant harder to improve performance.

Trial Design: variety Kuranda for late season plant in WideBay region for season 2019/20

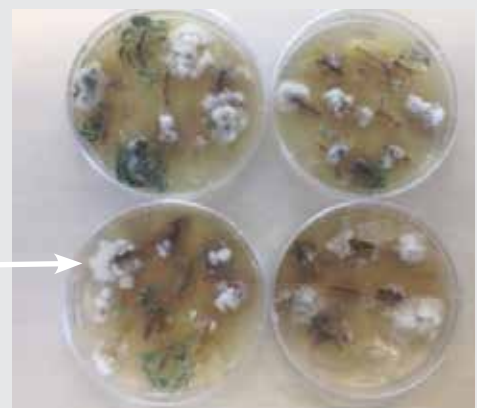
The trial was approximately 12 hectares. Sabel-X Hort treatment was applied at 30g/25kg seed as a dry seed treatment.

The trial was designed as a side by side trial with Sabel-X Hort planted last.



Pre-incubation of
Sabel-X Hort Endophytic
Trichoderma

Post-incubation of
Sabel-X Hort
Endophytic
Trichoderma showing
extensive Trichoderma
growth inside the plant





RESULTS



Third Assessment
Sabel-X - more leaves and more pods in middle and top



Harvest Assessment
Sabel-X - taller with even pod set from base to top
Control - pod set didn't start until higher up with not as many on top



Harvest Assessment
Control - dominance of nodules to primary root structure



Harvest Assessment
Sabel-X Hort - a better spread of nodules across all rooting framework & improved functionality as evidenced by darker pigmentation.

Yield increase: 26%

SabelX Hort Treatment @ 4100kgs/hectare
Standard Treatment @ 3250kgs/hectare

Return on Investment: 27.8 to 1

SabelX Hort cost: \$26 per hectare
Soybean Return price: \$850 per tonne
Measured Crop return: 850kgs
ROI figure: \$722.50 and incurring a \$26/hectare cost = 27.8 : 1 ROI

Observable Characteristics

Growth: Erect plants, with stay-green characteristics, that have tolerated and yielded at high population
Pod Yield: Plants have set pods at good height above ground, with high seed number/pod
Nodulation: Plants have set good distribution of nodules with excellent large sizing
Pre-Harvest assessment: No sign of seed abortion in Sabel-X, whereas in standard program, signs of top seed abortion in pods, to maintain the filling of the bottom 2 seeds.



More senescence & lodging



Greater stand erectness & stay green tendency