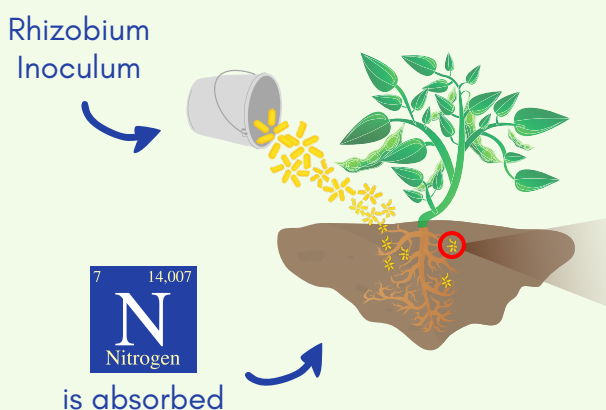


Inoculum

Microorganism

A living organism that can only be seen under a microscope. This includes bacteria, fungi, and protists. In general, soybeans and microbes exchange resources. For example nutrients, water, and pathogen warning signals.



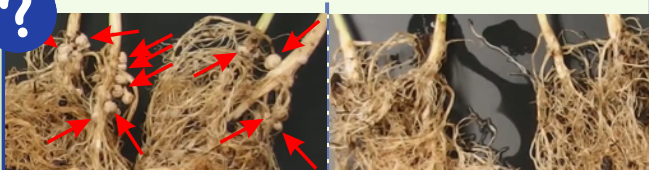
YES Rhizobium Inoculum

NO Rhizobium Inoculum

Soybean Health



Root Nodulation



What is soil inoculant?

A concentration of living microbes added into the soil. Different inoculants have different purposes depending on the microbe(s) it contains.

Most commonly, soil inoculant refers to rhizobium bacteria. Soybeans give rhizobium food, and in return, rhizobium provides nitrogen (N) to the soybean plant. This nitrogen promotes nitrogen fixation and health of the plant.

Rhizobium detects soybean plant's roots

Root detects inoculum and surrounds it

Nodulation of rhizobium gives nitrogen to the soybean plant

Did you know?

1.0 MT/ha Yields removes 27kgs of N from the soil. Inoculum can provide **5%-60%** of N needed for healthy soybean development. Inoculum, on average, costs ~34,806.50 UGX:

	5%	60%
N Provided	1.35 kgs	16.2 kgs
Estimated N Cost	6,265.17 UGX	75,365.23 UGX

BONUS: ~18kg/ha of N carry over to support future plantings. Saving YOU 175,864.42 UGX!

Resources

Life in the Soil (3:05): <https://www.youtube.com/watch?v=XapUm5nIzuM>

Steps for a proper inoculation (1:20): <https://youtu.be/YFDdgSzDVFU>

Time-lapse of soybeans growing with & without Rhizobia (2:54): <https://youtu.be/GfE5Dv4Xoks>

