



#28G-18 High-nitrogen fixing efficiency in modified soybean

With over **18 million** planted hectares, soybean is one of the most important crops in economic terms for the country and the region. Soy is a “strategic grain in international trade”, thus the **importance of ensuring its quality and productivity**.

In turn, the technology required to produce soybean has been the cause of different environmental impacts. Sustainable management practices like crop rotation are not always adopted, which generates nutrient exports that negatively impact the chemical and physical structure of planted soils.

The INTA Genetics Institute has applied induced mutagenesis to improve soybean, by selecting a variant whose **root architecture features active nodules that favor N₂ aggregation and fixation, improving physical and chemical soil fertility**.

ADVANTAGES:

- Species improved by induced mutagenesis.
- Soybean genotype with a modified root system, with higher N₂-fixation capacity.
- Sustainable crop.

TECHNOLOGY READINESS LEVEL:

Initial. The mutagenesis protocol is being adjusted in the species in greenhouse soybean varieties. An evaluation methodology is required for the root system of the mutant varieties obtained.

INTELLECTUAL PROPERTY RIGHTS STATUS: Mutants may qualify for Plant Variety Protection rights.

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