



# #14MZA-18

## Non-transgenic rhizobial bacteria with high N<sub>2</sub> fixation efficiency and emissions reduction in alfalfa

The inoculants available in Argentina and the rest of the world are bacterial isolates with high impact on **greenhouse gas emissions**. The market is presently pursuing new strains that enable high production yields and N<sub>2</sub>O emissions reduction.

The **Agricultural Microbiology and Zoology Institute**, in collaboration with **INTA Genetics Institute**, have isolated and characterized **16 non-transgenic rhizobium strains** with high **nitrogen fixation and N<sub>2</sub>O emissions reduction capacity** in alfalfa crops.

### ADVANTAGES:

- **Native non-transgenic strains**
- **N<sub>2</sub> fixation capacities in alfalfa**
- **N<sub>2</sub>O gas emissions mitigation capacity**

### TECHNOLOGY READINESS LEVEL:

**Non-transgenic native strains** with genetic and biochemical characterization in the laboratory and in the greenhouse. It requires applications assays and evaluation of N<sub>2</sub>O emissions in field tests. Scale production and marketing.

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