Recovery Project for Degraded Pastures in Brazil with Japanese Companies

Ministry of Agriculture, Forestry and Fisheries (MAFF)

With

Oriental Consultants Global Co., Ltd. (OCG)

November 17, 2025

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1. Overview for the Cooperation Project

1.1 Background of the Project

■ Partnership between Brazil and Japan

I. In May 2024, GPI (Green Partnership Initiative: Joint Statement on the Brazil-Japan Partnership Initiative on Environment, Climate, Sustainable Development and Resilient Economies) was launched.

II. In September 2024, MOC (Memorandum of Cooperation) was signed between the Japanese and Brazilian Ministers of Agriculture.

III. In March 2025, LOI (Letter of Intent) on the Recovery of Degraded Pastures was signed by between Brazil's MAPA (Ministry of Agriculture and Livestock), MDA (Ministry of Agrarian Development and Family Farming) and Japan's MAFF (Ministry of Agriculture, Forestry and Fisheries), MOFA (Ministry of Foreign Affairs).

1.2 Purpose of the Project

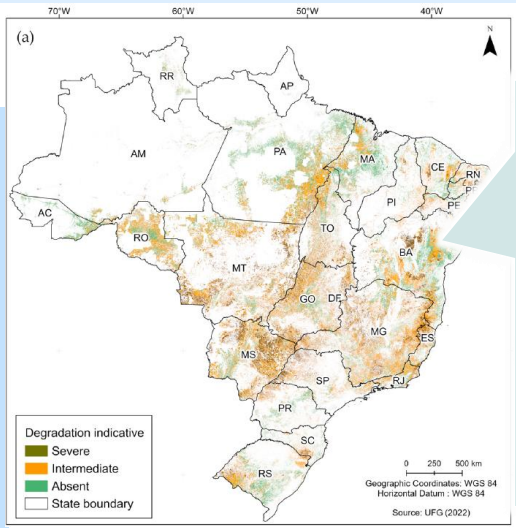
Activities to be Implemented in the Demonstration Projects

Evaluate the impact of agricultural inputs on production

+

Confirm necessary costs including implementation expenses

Identify the recovery models that attract ranchers' interest

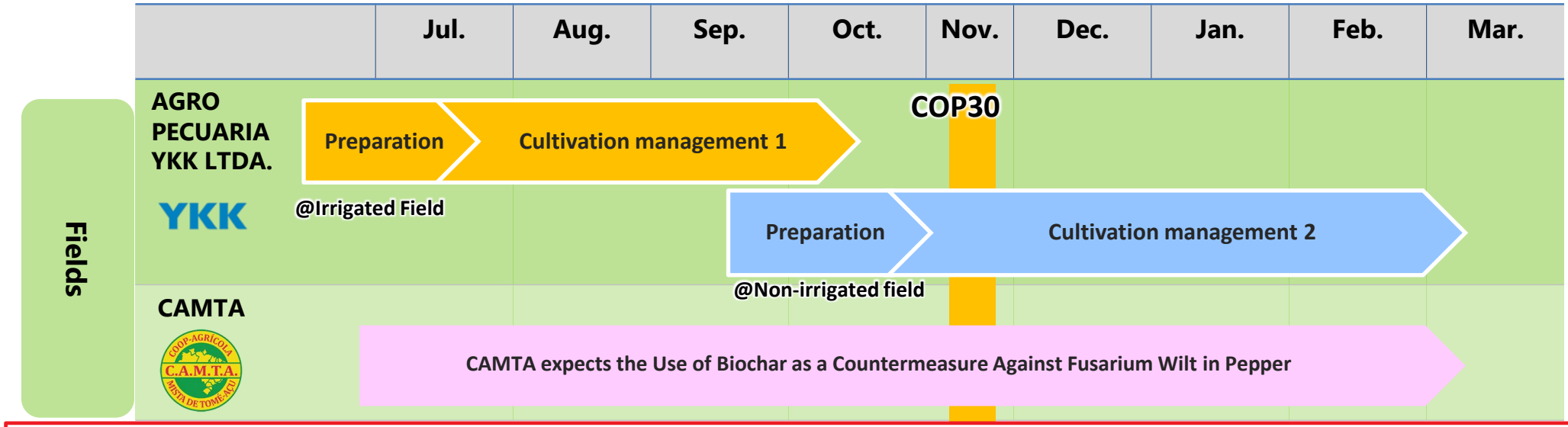


What is the Degraded Pasture?

Grassland with reduced productivity below its potential

Bolfe, É.L.; Victoria, D.d.C.; Sano, E.E.; Bayma, G.; Massruhá, S.M.F.S.; de Oliveira, A.F. Potential for Agricultural Expansion in Degraded Pasture Lands in Brazil Based on Geospatial Databases. *Land* **2024**, *13*, 200. https://doi.org/10.3390/land13020200

1. Overview for the Cooperation Project



Eat Well, Live Well.

Ajinomoto

Amino Plus

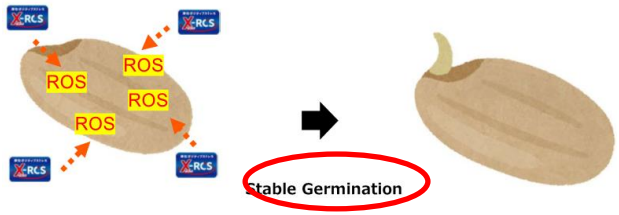
Help the plant absorb and utilize nutrients more effectively

Amino Arginine

Help improve the formation of roots, new branches, leaves,

Asahi GROUP

Asahi Biocycle



CW1

- Seed germination
- Stress tolerance & support plants activity

Thervelics

- Root development
- Nutrient support & Healthy plant

2.1 Demonstration at YKK's farm

▶ **Location of YKK's farm** (Around **4 hrs** by car from Brasília)

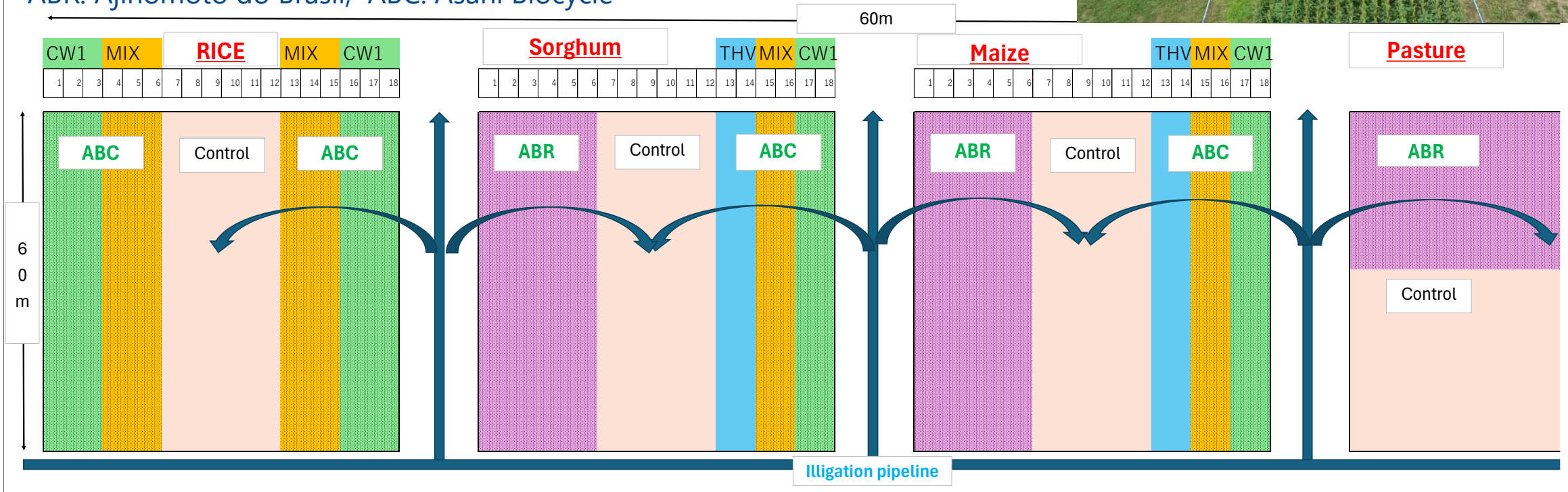
2.1 Plan for the 1st Period Demonstration (Jul – Oct)

- **Place**: Near Bonfinópolis de Minas, Minas Gerais State
- **Area**: Approximately 36-are scale (60 m x 60 m)
- **Crop**: Maize, Rice (Wet-land variety), Sorghum, Pasture

YKK Little Parts. Big Difference. Eat Well, Live Well. Ajinomoto. Asahi Group. Asahi Biocycle

▼ Plot Layout for Seeding (1st Period)

*ABR: Ajinomoto do Brasil, ABC: Asahi Biocycle



2.2 Demonstration at YKK's farm | Results of the 1st Period Demonstration

[Sorghum] Monitoring from August to September

5th August → 19th August → 2nd September

16th September → 30th September

2.2 Demonstration at YKK's farm | Results of the 1st Period Demonstration

[Pasture] Monitoring from August to September

5th August → 19th August → 2nd September → 16th September → 30th September

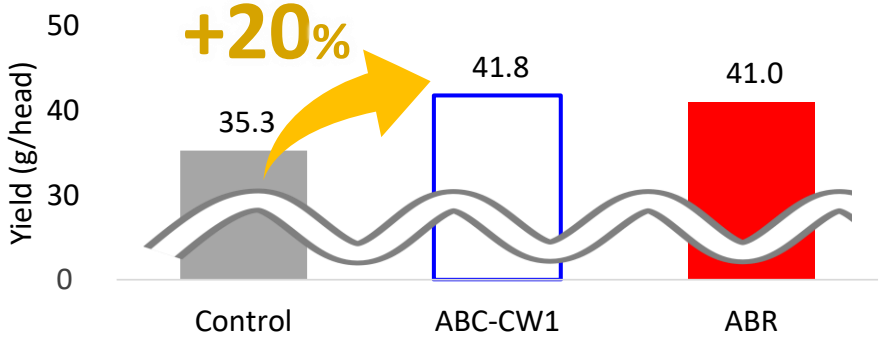
2.2 Demonstration at YKK's farm | Results of the 1st Period Demonstration

[Sorghum]

Final evaluation

✓ **ABR and ABC-CW1 showed particularly remarkable growth.**

Comparison of Yield among Treatments [Oct-23]

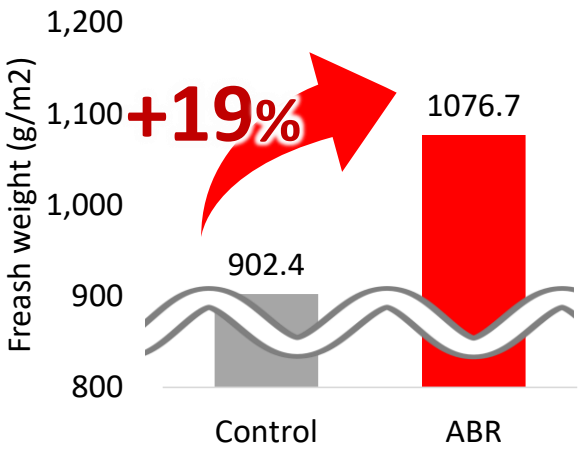


[Control area]
Grew a little bit slowly

[Application-area]
Grew larger earlier

[Pasture]

Comparison of Fresh weight among Treatments [Oct-9]



[Control area]
Soil area seems density

[ABR-area]
High pasture density

Final evaluation

✓ **ABR-area has heavier Fresh weight and Protein content.**

✓ **ABR-area has a higher density.**

2.2 Demonstration at YKK's farm | Results of the 1st Period Demonstration

[Rice] Monitoring in September

* Re-sowing on 5th September

- Rice sowed on Jul-8 suffered herbicide damage
  ⇒ **Change the seed variety in the 2nd period**

[Maize] Monitoring in September

* Re-sowing on 12th September

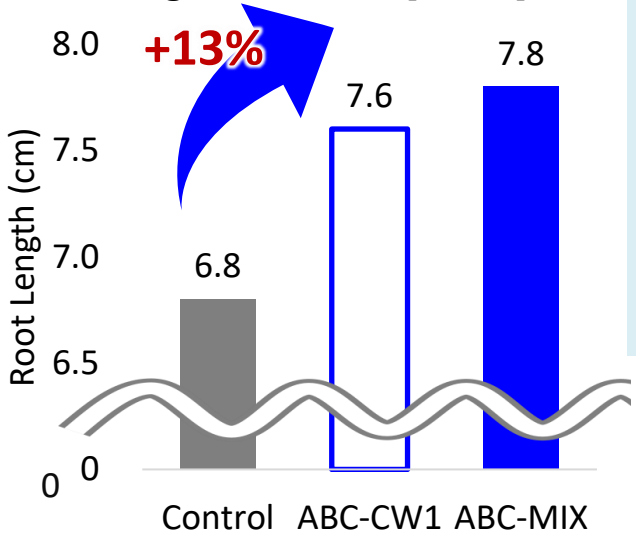
- Maize sowed on Jul-8 suffered damage from wild boar feeding
  ⇒ **Install an electric fence**

2.2 Demonstration at YKK's farm | Results of the 1st Period Demonstration

[Rice]

Second Sowing on Sep-20

Comparison of Root Length among Treatments [Oct-7]



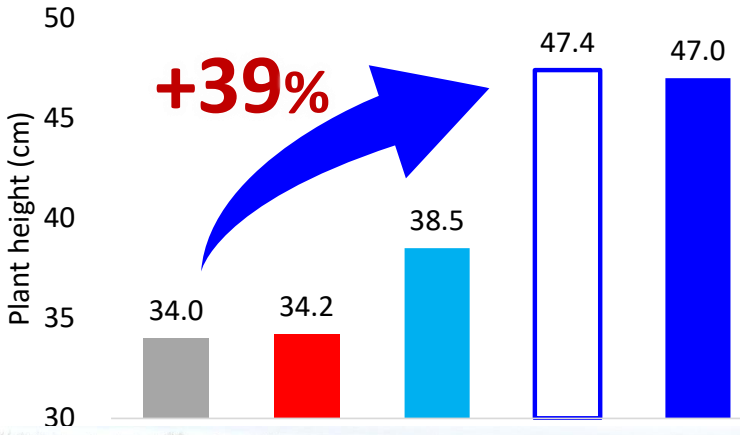
[ABC-area]
Stable seedling emergence

[Control area]
Some parts showed poor emergence

Final evaluation
- ✓ **ABC-area has long root length.**
- ✓ **ABC-area exhibited stable seedling emergence.**

[Maize] Data analysis

Comparison of Plant Height among Treatments [Aug-25]



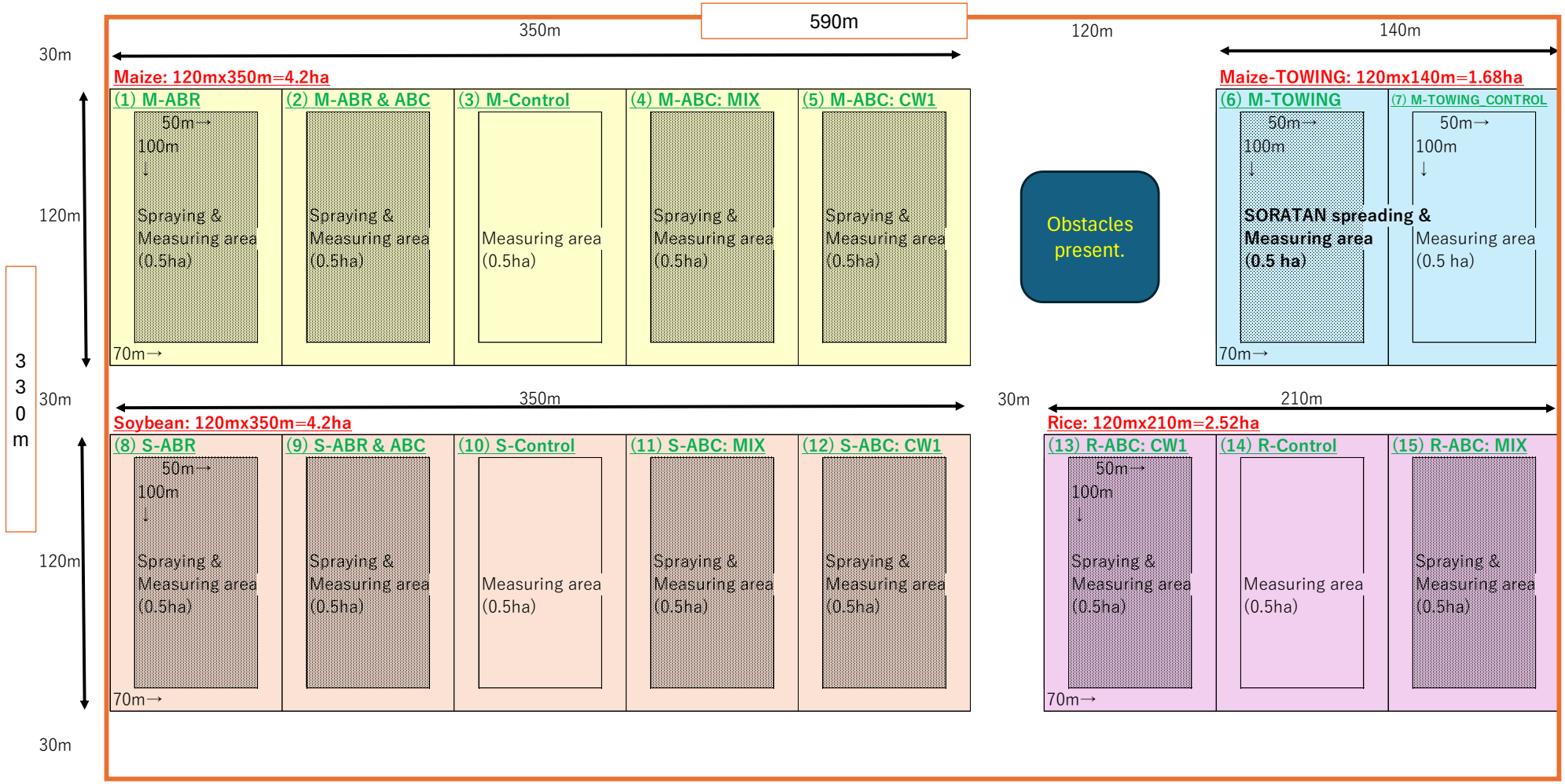
Final evaluation
- ✓ **Height growth rate in the Application area is better than the control area.**

2.3 Demonstration at YKK's farm | Plan for the 2nd Period Demonstration (Oct - Feb)

- **Crop**: Maize, Rice (Upland variety), Soybean
- **Area**: Approximately 19.5 ha scale (330 m x 590 m)

▼ Plot Layout for Seeding (2nd Period)

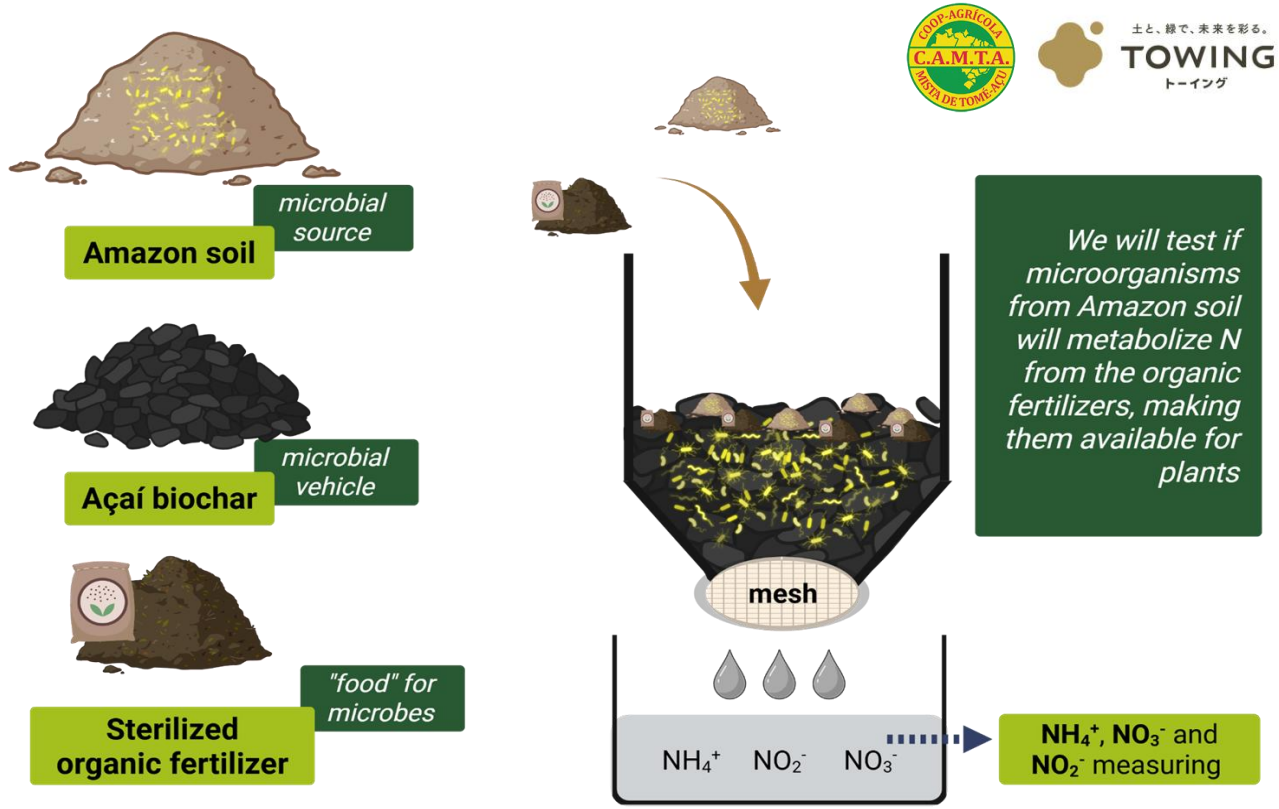
*ABR: Ajinomoto do Brasil, ABC: Asahi Biocycle



3.1 Demonstration with CAMTA | Plan for the Experiment

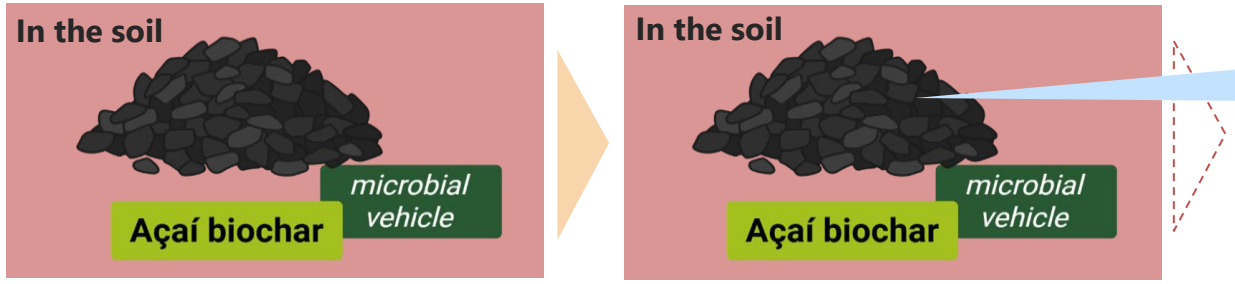
Challenge:
Açaí residue accumulation
(reported by CAMTA)
Solution:
Convert residue into biochar

Objective:
Convert açaí biochar into SORATAN (Ecosystem-Functional Microbe-Immobilized Biochar made by TOWING) to enhance its benefits and mitigate potential risks.
Method:
Utilize soil from the Amazon as a microbial source, with açaí biochar serving as the microbial carrier.



Meeboon, J., Nishida, R., Iwai, T. *et al.* Development of soil-less substrates capable of degrading organic nitrogen into nitrate as in natural soils. *Sci Rep* **12**, 785 (2022).

What is Biochar?



Bacteria cannot decompose biochar, enabling carbon fixation.

4. Conclusion and expected contribution for carbon emissions

[Bio stimulants]

- Demo result: Bio stimulants have shown positive results to support plant growth and increase yields.
- Expected contribution:
  - By applying the bio stimulants, it is expected that the amount of nitrogen fertilizer applied will be reduced, which will reduce GHG emissions.
  - Applying the bio stimulants enhance plant tolerance to stresses like drought and high temperatures, thereby contributing to the recovery and increasing productivities of the degraded pastures under unfavorable conditions without deforestation

[Biochar]

- Demo progress: The development of high-performance biochar is expected to contribute to the agricultural improvement of CAMTA.
- Expected contribution:
  - The use of biochar has soil improvement effects, such as enhancing water and nutrient retention, promoting microbial activity and preventing disease.
  - Also, biochar has a carbon sequestration effect, contributing to the reduction of GHG emissions and obtaining the carbon credit in the future.
  - CAMTA's agroforestry is known as it recovering degraded land to productive field with mixed plants and crops. Use of Biochar will strengthen the CAMTA's sustainable agriculture. It also helps to expand the agroforestry in other areas.

Thank you for listening.