



Practice Abstract N° 5

How to inoculate seeds with arbuscular mycorrhizal fungi

INTRODUCTION

Seed inoculation with AMF (Arbuscular Mycorrhizal Fungi) refers to the process of applying AMF spores or mycelium directly to seeds before sowing. This enhances the establishment of mycorrhizal fungi in the soil, promoting plant health, nutrient uptake, growth, and indirectly potentially weed suppression.

MAIN RESULTS – OUTCOMES

We have achieved the following so far:

- List of native AMF taxa from 7 European countries with different edaphoclimatic conditions
- Production of native AMF inocula for seed coating in the relevant LLs
- Protocols and guidelines for successful seed inoculation of cover crops
- Preparation of the native AMF inocula for shipment to the relevant LLs, associating each inoculum with specific guidelines developed for the different cover crop species used in the different LLs across 7 European countries



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Inoculated green seeds with different shape, size and coat (below), compared with non-inoculated ones (above) belonging to three different plant species.



You can read more in our open-access deliverable in Cordis

<https://ec.europa.eu/research/participants/documents/downloadPublic?documentIds=080166e50bf65415&appId=PPGMS>

PRACTICAL RECOMMENDATIONS

You will need to have access to a good AMF inoculum and Liquid adhesive material (LAM). Certain AMF species may be more suitable for particular soil types or crops. Research or consult an agronomist/microbiologist to select the most appropriate species for your needs.

Seed inoculation should be performed utilizing the appropriate container, taking into account that the containers should be filled with the seeds up to 1/3, in order to shake seeds and the inoculation material, and reach an even coating. Allow dry seeds before sowing to avoid problems with the machine.



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