

POLYMER-ENTRAPPED SYMBIOTIC MICROORGANISMS
AS INOCULANTS FOR LEGUMES AND NON-LEGUMES.

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Inoculants for legumes are usually obtained by adsorbing Rhizobium on a carrier, such as peat; they can also be prepared by entrapping the bacteria in a polymeric gel, as proposed by Dommergues et al., (1979), Jung et al., (in press).

We report here results indicating that the latter method is valid not only for Rhizobium, but also for other symbiotic microorganisms namely Frankia, endomycorrhizal (Glomus mosseae) and ectomycorrhizal (Hebeloma cylindrosporum, Pisolithus tinctorius) fungi. Inoculants thus obtained are called "polymer entrapped microorganisms" (PEM).

Cultures of Rhizobium, Frankia and G. mosseae were made according to the usual procedures. Ectomycorrhizal fungi were grown in 170 to 800 l fermentors containing a defined medium well aerated and agitated.

PEM were used for seed inoculation (Rhizobium) or soil inoculation (all microorganisms) (1) as wet beads, semi-dried powder or granules for Rhizobium ($5 \cdot 10^8$ - 10^9 microorganisms per g), ectomycorrhizae and endomycorrhizae, (2) as dried powder for Rhizobium, Frankia and endomycorrhizae.

All inoculants were easy to handle and could be stored at room temperature for several months without any loss of viability, infectivity and efficiency.

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