

Czech Academy of Agricultural Sciences



Open Access Agricultural Journals

Journal of

FOREST SCIENCE

[home](#) [page](#) [about us](#) [contact](#)

[us](#)

**Table of
Contents**

IN PRESS

JFS 2015

JFS 2014

JFS 2013

JFS 2012

JFS 2011

JFS 2010

JFS 2009

JFS 2008

JFS 2007

JFS 2006

JFS 2005

JFS 2003

JFS Home

**Editorial
Board**

For Authors

- **Authors
Declaration**
- **Instruction
to Authors**
- **Guide for
Authors**
- **Copyright
Statement**
- **Submission**

**For
Reviewers**

- **Guide for
Reviewers**
 - **Reviewers
Login**
-

Subscription

Journal of Forest Science

Diversity of endomycorrhizal fungi and their synergistic effect on the growth of *Acacia catechu* Willd.

Parkash V., Aggarwal A.:

[[fulltext](#)]

The diversity of arbuscular mycorrhizal (AM) fungi of *Acacia catechu* Willd. was studied. Dominant AM spores, the bacterium *Rhizobium* sp. along with the fungus *Trichoderma viride* were isolated from the rhizosphere of *A. catechu* and mass-produced in laboratory. The co-inoculation effect of *Glomus mosseae*, *Glomus fasciculatum*, mixed AM (*Glomus* spp. [except *G. mosseae*, *G. fasciculatum*] with *Acaulospora* spp., *Sclerocystis* spp. and *Gigaspora* spp.), *Rhizobium* sp. and *Trichoderma viride* was studied as exerted on the growth of *A. catechu* seedlings. All inoculated seedlings showed improved seedling growth compared to the control. Inoculated seedlings had a pronounced effect on all growth parameters such as height, fresh and dry weight of roots and shoots, AM spore count, per cent mycorrhizal colonization in roots and root nodule number in comparison with uninoculated seedlings. Phosphorus uptake was also higher in inoculated seedlings than in the control. This study

provides a good scope for commercially utilizing the efficient strains of AM fungi for beneficial effects with other beneficial rhizosphere microflora in the primary establishment of slow growing seedlings ensuring better survival and improved growth.

Keywords:

Acacia catechu Willd.; co-inoculation; phosphorus; *Rhizobium* sp.; *Trichoderma viride*; AM diversity

[[fulltext](#)]

© 2015 **Czech Academy of Agricultural Sciences**

XHTML11 VALID

CSS VALID