Beneficial root-associated microorganisms for sustainable agriculture is a COST Action funded by the European Union (CA22142).

Root-Benefit

Beneficial root-associated micro-organisms for sustainable agriculture.

WG4

Managing and improving beneficial interaction networks under field conditions

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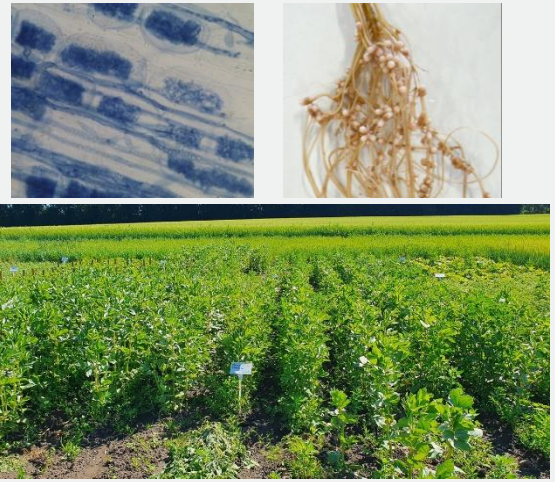
WG4



WG4

Beneficial interactions under field conditions

Managing and improving beneficial interaction networks under field conditions

MAIN OBJECTIVE

To facilitate the implementation of scientifically well-supported strategies for improvement of beneficial root-associated microorganism interactions, as well as the introduction of beneficial root-associated microorganisms in agriculture.

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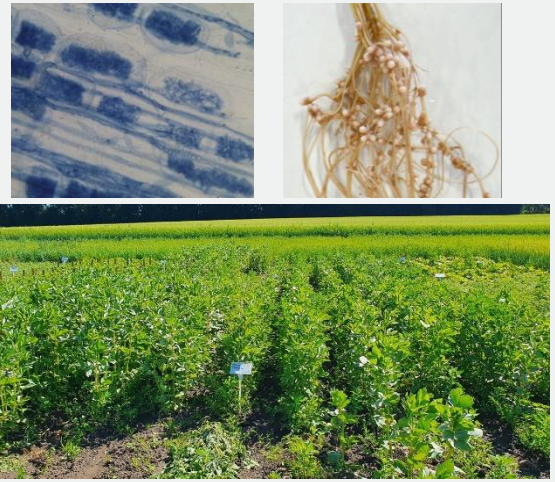
WG4



WG4

Beneficial interactions under field conditions

Managing and improving beneficial interaction networks under field conditions

SPECIFIC OBJETIVES

- **Objective 4.1. To identify barriers limiting the use of beneficial root-associated microorganisms under field conditions.**
- **Objective 4.2. To propose recommendations on beneficial root-associated microorganism inoculant properties and quality.**

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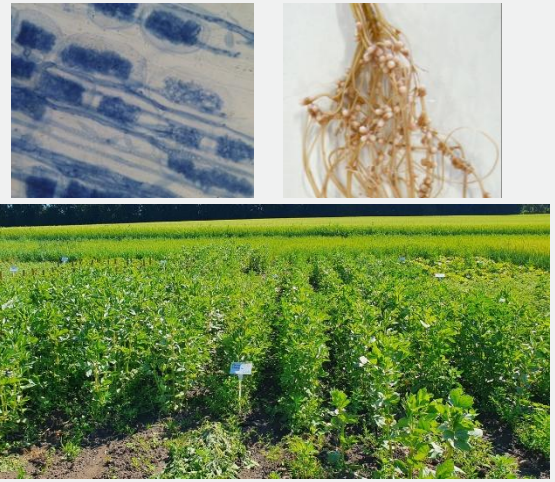
WG4



WG4
Beneficial interactions under field conditions

Managing and improving beneficial interaction networks under field conditions

SPECIFIC OBJETIVES

- **Objective 4.3. To propose methodologies for evaluation of the effect of beneficial root-associated microorganisms in field conditions.**

- **Objective 4.4. To propose strategies for co-selection of plants and microorganisms.**

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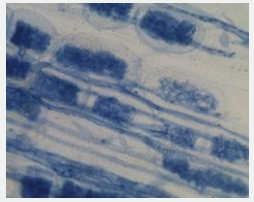
WG4



WG4

Beneficial interactions under field conditions

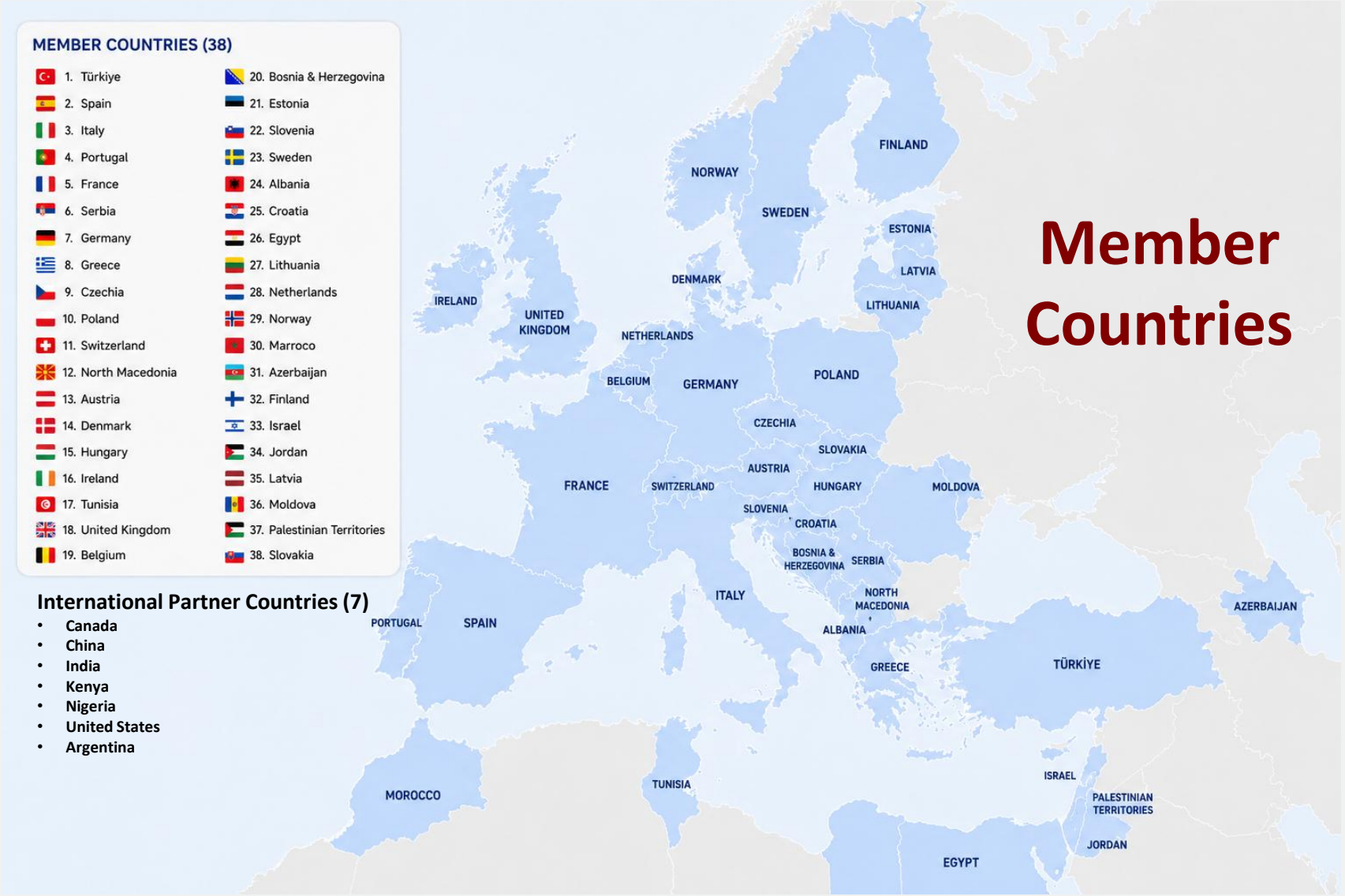
Member Countries

MEMBER COUNTRIES (38)

1. Türkiye
2. Spain
3. Italy
4. Portugal
5. France
6. Serbia
7. Germany
8. Greece
9. Czechia
10. Poland
11. Switzerland
12. North Macedonia
13. Austria
14. Denmark
15. Hungary
16. Ireland
17. Tunisia
18. United Kingdom
19. Belgium
20. Bosnia & Herzegovina
21. Estonia
22. Slovenia
23. Sweden
24. Albania
25. Croatia
26. Egypt
27. Lithuania
28. Netherlands
29. Norway
30. Marroco
31. Azerbaijan
32. Finland
33. Israel
34. Jordan
35. Latvia
36. Moldova
37. Palestinian Territories
38. Slovakia

International Partner Countries (7)

- Canada
- China
- India
- Kenya
- Nigeria
- United States
- Argentina



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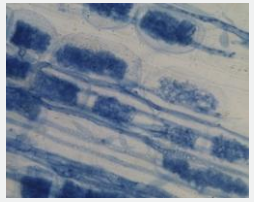
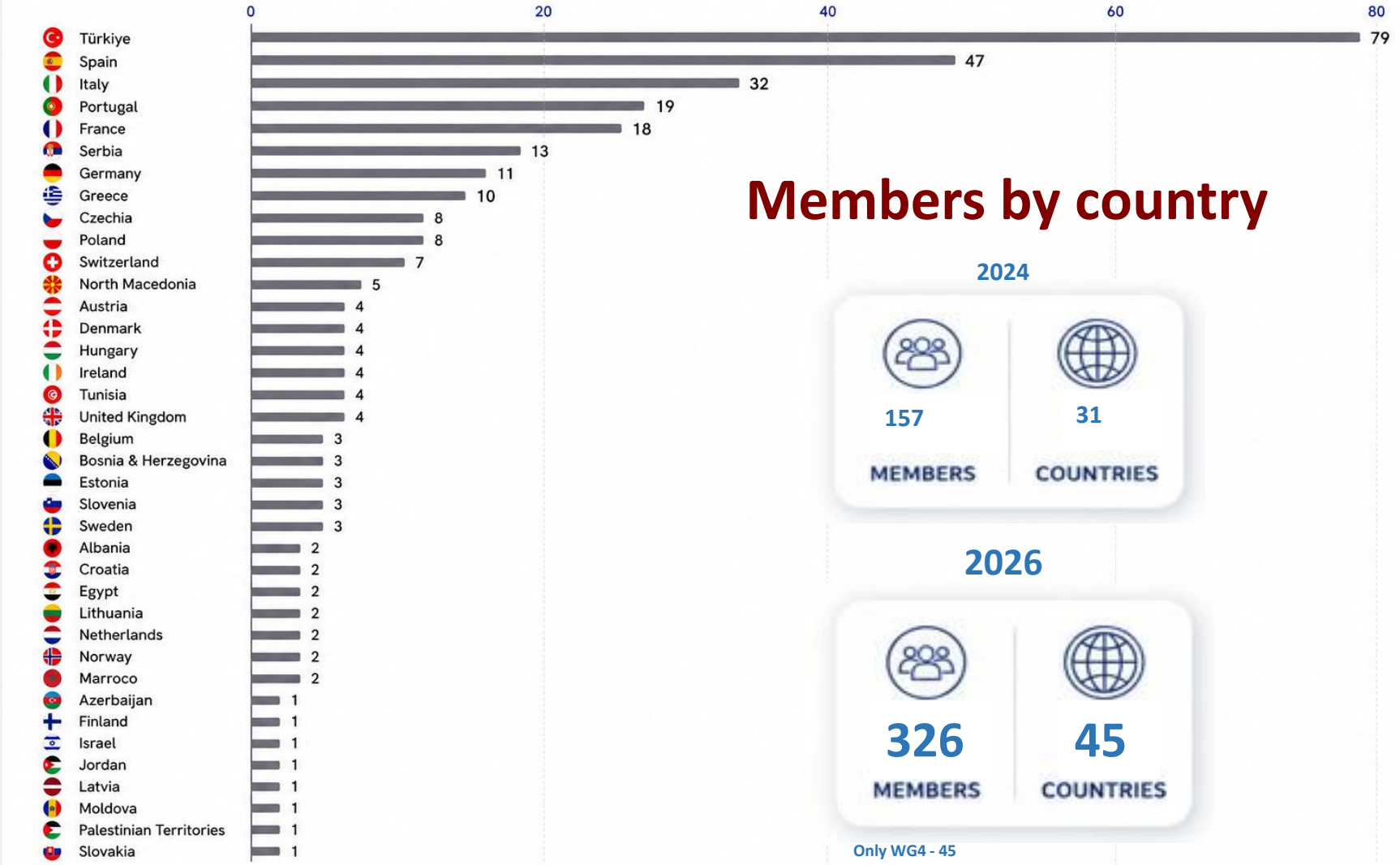


WG4

Beneficial interactions under field conditions



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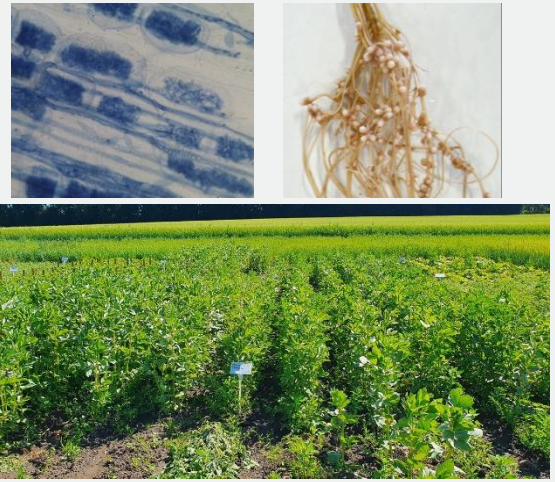

WG4

Beneficial interactions under field conditions

Actions & Acts

- STSM – Short term scientific missions
- Collaborative Projects
- Joint coordination of PhD thesis
- Workshop organization
- Actively engaged with other COST Actions

Cost – Connect Agriculture and its Products

- Bring together experts and COST Actions in different disciplines working on agricultural research topics
- Explore future interdisciplinary collaborations via interactive discussions

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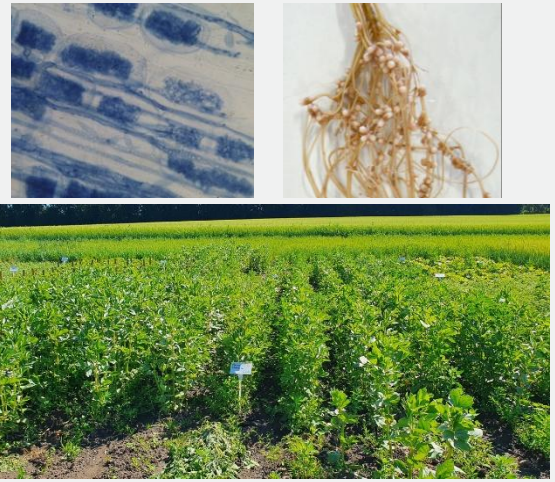
- **Objective 4.1. To identify barriers limiting the use of beneficial root-associated microorganisms under field conditions.**

WG4



WG4
Beneficial interactions under field conditions

Workshop
Root beneficial microbes – fit for a changing agriculture?
Évora, Portugal – 19, 20 September 2024

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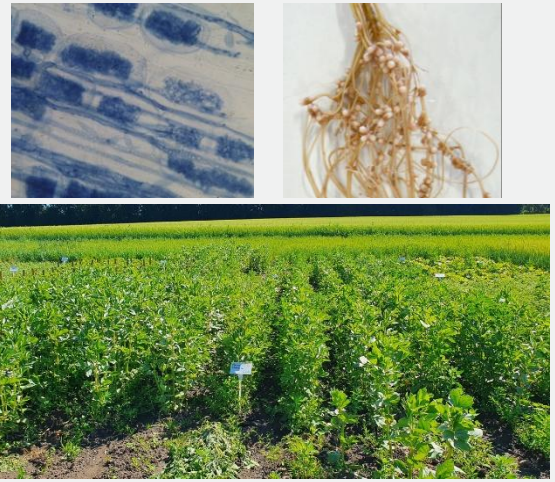
WG4



WG4

Beneficial interactions under field conditions

Workshop

Root beneficial microbes – fit for a changing agriculture?

Évora, Portugal – 19, 20 September 2024

The objective

Bring together stakeholders to share their point of view and highlight knowledge gaps, potential and limitations of using root-associated beneficial microbes in agriculture

- **50 participants on site and as many online aim**
- **Total of 27 countries**
- **Farmers, traders, inoculum producers, policy makers and academic researchers**

D1 - An article integrating the presentations and debate in this workshop is being prepared

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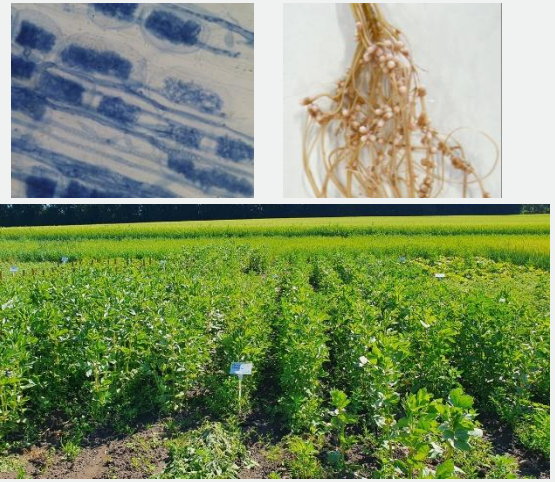
Objective 4.2. To propose recommendations on beneficial root-associated microorganism inoculant properties and quality

WG4



WG4

Beneficial interactions under field conditions

Recommendations on inoculant properties and quality

- **Criteria for strain selection based on their competitiveness, persistence and plant response efficacy.**
- **To propose recommendations on beneficial root-associated microorganism inoculant properties and quality.**

Problems to address:

- **Researchers awareness about the EU Regulations regarding biostimulants**
- **What kind of test should be performed to guarantee the desired properties**
- **Tests must be standardized, easy to execute and grant consistent comparisons**
- **Importance of storage conditions and form of application on recommendations**
- **Reduce time for approval**

D4 - An article regarding these aspects is being prepared

Additional hands-on inputs and ideas are welcomed!

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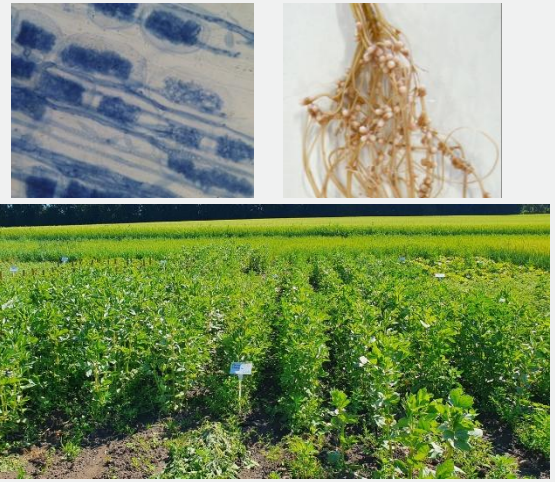
WG4



WG4

Beneficial interactions under field conditions

DELIVERABLES

- **Deliverable 5. A list of European researchers and laboratories offering expertise and facilities for characterization of the potential of beneficial root-associated microorganisms**

- **Deliverable 6. List of services conferred to agro-ecosystems and human society by beneficial interaction networks and how to measure them (WG 3)**

Glad to have your input!

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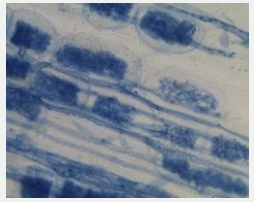
WG4



WG4

Beneficial interactions under field conditions

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