PREVALENCE OF DISEASES IN MANGO NURSERIES IN PUNJAB, PAKISTAN

• ¹Faisal S. Fateh, ¹Munawar R. Kazmi, ²Chrys. N. Akem and ³Tariq Malik

• ¹Nat-IPM Programme, IPEP, National Agricultural Research Centre, Park Road, Islamabad, Pakistan
• ²Queensland Primary Industries and Fisheries, Ayr, Australia
• ³Mango Research Station Shujabad, Punjab, Pakistan
Contents

• Introduction
• Background
• Objective
• Results
• Way forward
INTRODUCTION

• Mango King of fruits
• Stands second after citrus in Pakistan
• Mango as foreign exchange earning crop (US$6.2 m, 2010)
• Mango area 170.1 thousand hectares production of 1727.1 thousand tonnes (Govt. of Pakistan, 2009)
Mango Sudden Death
Malformation
Powdery Mildew
Anthracnose
Nurseries might be source of diseases?

• Mango nurseries inside orchards
• Trees shading nurseries are infected
• Infected nursery plants result in the infected orchard.
How nursery plants receive infection?

- Growing under infected trees
- In efficient grafting protocols.
- Improper Irrigation (Quality, method)
- Nursery raising in infected soils
Objective

To determine the prevalence of diseases occurring in mango nurseries so that growers could be advised on strategies to produce healthier nursery seedlings.
Districts Surveyed

- Multan
- Bahawalpur
- Rahim Yar Khan
- Lahore
- Faisalabad
- Jhang
## RESULTS

<table>
<thead>
<tr>
<th>S. No</th>
<th>Disease</th>
<th>Symptoms</th>
<th>Incidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Mango Sudden Death (MSD)</td>
<td>oozing and/or gummosis on seedling stems</td>
<td>43%</td>
</tr>
<tr>
<td>2</td>
<td>Malformation</td>
<td>malformed florets</td>
<td>70%</td>
</tr>
<tr>
<td>3</td>
<td>Anthracnose</td>
<td>leaf spots on young flushes</td>
<td>30%</td>
</tr>
<tr>
<td>4</td>
<td>Powdery Mildew</td>
<td>coatings on leaves</td>
<td>6%</td>
</tr>
</tbody>
</table>
Fig. 1: (A&C) Mango Sudden Death Syndrome symptoms (B) Powdery Mildew (D) Malformation
CONCLUSIONS

• The surveys drew attention to the issues identified and follow up discussions with the nursery owners are helping to improve their nursery management strategies.

• The results showed that the current nursery practices are a big source of threat for future mango orchards.

• There is a lot of room and potential for improvement in mango nursery and in turn mango production
Way Forward

• Germplasm unit (GPU) establishment.

• Certification of Mango Nurseries

• Standardization of pot media from local sources

• Capacity building of nursery men.
ACKNOWLEDGEMENTS

Funding for this work was provided by Australia Pakistan Agriculture Sector Linkages Program (ASLP) Mango Production Project.
Thank you