

Integrated crop management to produce quality mangoes for Pakistan and Australia

The project will take a holistic systems approach to develop and evaluate strategies for the improvement of mango production for export and domestic markets. This will be accomplished through activities in orchard, disease and pest management.

Orchard Management Issues

- **Nutritional management of Pakistan mango trees to optimise tree health fruit quality and production**
 - Developing nutritional recommendations for mangoes
 - Develop nutritional monitoring tools
- **Irrigation management to maximise fruit quality and production**
 - Understand tree water requirements at each phenological stage
 - Water application techniques, monitoring and scheduling
- **Canopy management for reduced tree size, disease reduction and improved fruit quality**
 - Demonstrate pruning techniques in pre-bearing trees to develop productive canopy
 - Demonstrate pruning techniques in bearing trees to reduce biennial production, increase yield and reduce disease
- **Nursery production and certification**
 - Introduce and evaluate salt tolerant and polyembryonic rootstocks
 - Develop a demonstration certified nursery producing disease-free containerised grafted trees.

Disease Management Issues

- **Sudden death Syndrome**
 - Confirmation of pathogens (causal agents)
 - Develop early diagnosis and control practices using farmer friendly techniques
- **Progressive decline**
 - Identify the role of root rots, soil pH and tree nutrition
 - Package known management recommendations and economic analysis
- **Anthracnose and blossom blight**
 - Package of known management practices for growers
 - Develop disease forecasting to improve timing of spray applications
- **Training and skills development**
 - Develop and deliver training modules on mango crop protection principles disease recognition and management to farmers, extension officers and researchers

Pest Management Issues

- **Fruit fly**
 - Develop preharvest management guidelines
 - Develop postharvest disinfestation protocols
- **Mango Midges**
 - Assess economic impact
 - Study the biology and ecology of the pest