





KARI e-Mimi Fact Sheet No.39/2014

Disease name: - Passion fruit dieback disease *Phytophthora nicotianae* var *parasitica* and *Fusarium* spp

 <p>Dieback on the stem of infected plant</p>	 <p>Severely infected passion fruit farm</p>
<p>Description</p>	<p>Passion fruit dieback disease is caused by <i>Phytophthora nicotianae</i> var <i>parasitica</i> and <i>Fusarium</i> spp. Disease development is favored by cool, wet weather. The fungi are wind-borne and spread very fast. Injury of stem or branches serves as avenues for pathogen entry.</p>
<p>Disease/Pest category</p>	<ul style="list-style-type: none"> • Continuous
<p>Diagnosis/Identification</p>	<ul style="list-style-type: none"> • The disease starts as a stem lesion which leads to wilting and collapse of shoots above the lesion • The plant starts dying backwards towards the roots. • Eventually the entire plant dies. • Where grafted seedlings (yellow rootstock and purple scion) are planted, the rootstock remains alive while the purple passion fruit dies.
<p>Conditions prevailing that contribute to success</p>	<ul style="list-style-type: none"> • Continuous planting of passion fruit that increases inoculum • Water stress • Poor field hygiene especially use of contaminated tools for pruning
<p>Control strategies</p>	<ol style="list-style-type: none"> 1. Avoid continuous planting of passion fruit to reduce inoculum. 2. Avoid injuring plants while weeding to limit pathogen entry avenues 3. Frequently scout for injuries on stems, shoots and branches. 4. Apply copper-based fungicides on the injured areas to promptly curb the spread of the lesion. 5. Prune and destroy all affected plant parts by burying or burning. 6. Ensure fields are free from weeds as these serve as reservoirs for pathogens 7. Constantly surface-sterilize all farm tools especially during pruning, with 2% NaOCl. 8. Boost the health status of the crops by using recommended fertilizers (TSP, 125g/hole at planting and CAN, 125g per plant in 2-3 splits per year as a top dress; manure 10-15 kg per plant per

	<p>year).</p> <p>9. Use a preventative spray programme with copper-based fungicides. Products such as Captan 80WP at 2kg/1000 litres, Rootgard at 100ml in 20 litres, Rovral Flo 250 C 1 litre/hectare or Topsin M 70g/5 litres or Bavistin 50DF may be used under high disease pressure.</p>
Reference Links	http://www.bioline.org.br/request/cs10022
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