

Fusarium wilt on passion fruit

Fusarium oxysporum f.sp. *Passiflorae*



Fusarium wilt of passionfruit (Francis Nduati)



Symptoms on stem. The bark was removed to show the dark discoloration of the xylem (J.R. Liberato, DPI&F, Australia)

Prevention	Monitoring	Direct Control	Direct Control	Restrictions
<ul style="list-style-type: none"> • Solarize the soil 5-6 weeks before planting the crop • Plant disease free seedlings from certified nurseries such as KALRO-Thika, JKUAT, Good neighbours and other HCDA registered nurseries • Plant seedlings grafted to wilt-resistant yellow passion fruit rootstocks • Rotate passion fruit with maize, beans, cabbage, kales and non solanaceous crops • Avoid injuring plant stems and roots; these serve as entry avenues for the pathogen • Plant orchard in well drained soils • Avoid planting a new orchard near a previously infected one as movement of soil from infected to new site may lead to spread of the disease 	<ul style="list-style-type: none"> • Look for yellowing and drooping of leaves even when the soil has sufficient moisture • Check for browning and vertical cracking of the collar region of the stem at ground level • Disect the stem and check for a distinctive browning of vascular tissues • Look for wilting of plant from the base upwards, defoliation and complete death of plant • Take immediate action once one plant shows the signs 	<ul style="list-style-type: none"> • Uproot and destroy infected plants by burning or burying • Sterilize all farm tools especially during pruning with 2% jik solution (500 ml of jik in 20 litres of water) • Control run off water from infected areas to clean areas to avoid spreading the pathogen • Start working from disease free areas before proceeding to affected parts of the field • Dip the roots of young seedlings in a bio pesticide containing <i>Trichoderma</i> e.g. Trianum P @1:5 (1 part Trianum:5 parts of water), Trichotech, during planting 	<ul style="list-style-type: none"> • When using pesticides always wear protective clothing 	
			<ul style="list-style-type: none"> • Always follow the instructions on the product label such as dosage, timing of application, PHI, maximum number of sprays, re-entry interval, etc. 	<ul style="list-style-type: none"> • Always consult current list of registered pesticides
			<ul style="list-style-type: none"> • Drench the soil with Propamocarb Hydrochloride based products e.g. Previcur N @50ml/ 20lts, Propeller@60-120ml/20L 	<ul style="list-style-type: none"> • WHO Toxicity class U (unlikely to present acute hazard); PHI 7 days. Drench the soils before planting or during the observation of initial disease symptoms
			<ul style="list-style-type: none"> • Drench the soil with Carbendazim + Mancozeb based products such as Saaf WP at the rate of 25g/ 20lts, Sherrif 	<ul style="list-style-type: none"> • WHO Toxicity class III (slightly hazardous) PHI 7 days. Drench the soils before planting or during the observation of initial disease symptoms



Kenya

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