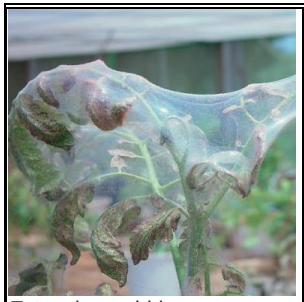
Red spider mite on tomato

Tetranychus spp.; local name: Utitiri wekundu (Swahili)



Extensive webbing on a tomato plant in a greenhouse. (Photo: RSM project, ICIPE)

Top – Red spider mite
Bottom – Damaged leaf
[courtesy of NRI, UK – Handbook for extension staff, Zimbabwe]

Prevention	Monitoring	Direct Control	Direct Control	Restrictions
◆ Avoid water stress. If necessary, irrigate the crop regularly, and apply mulch to reduce water evaporation. ◆ Avoid continuous cropping of tomato and solanaceous plants (e.g. eggplant, capsicum and Irish potato) ◆ Practise good field sanitation e.g. removing residues of the previous crop, removing alternative hosts e.g. weeds. ◆ Clean stakes and twines with water and soap and dry in the sun for one week before transferring to a new crop. ◆ Interplanting tomato with garlic, basil or onion (repellents). ◆ Spray water regularly on plants to reduce dust since RSM does well in dusty conditions. ◆ Avoid planting new crops next to an already infested field (tomato or other crops) ◆ Plant tolerant varieties e.g. Rossol ◆ Intercrop with pigeon peas and spider plant, host plants for the predatory mites of spider mites.	◆ Inspect the crop regularly to determine the presence and level of infestation during the growing period ◆ Assess leaves particularly the lower leaves (underside) and the main vein ◆ Inspect whorl leaves for spots and fine webbing; Brown or silvery colour as a result of RSM feeding; and white speckling on the fruits ◆ Randomly select 20 tomato plants and assess the level of mite damage of three leaflets per plant using a leaf index ranking from 1 – 5 (1 is 1-5% yellow spots on the leaf, 5 is 75-100%) ◆ Take action when the average exceeds scale 1.	◆ Overhead irrigation reduces the RSM population. ◆ Use neem (Azadiractin) three to four times per season starting to spray 15 days after transplanting (2.5 to 3l per Ha) ◆ Spray 2% horticultural oil (85ml in 4 l of water) in a six week interval ◆ Garlic oil spray (85g fine chopped garlic socked one day in 50 mls mineral oil plus 10 mls soap, stir and add 1 l water) spray twice per season. ◆ Biological control – use **PHYTOTECH (*Phytoseiulus persimilis)* and AMBLYTECH (*Amblyseius californicus)* from DUDUTECH**	◆ Abamectin ◆ Bifenthrin ◆ Sulphur ◆ Amitraz ◆ Carbamate	◆ Toxic aquatic organisms; avoid applying near water ways ◆ High risk to bees. Don't apply during flowering ◆ Moderately hazardous (WHO II) ◆ Highly toxic to bees ◆ Toxic to aquatic organisms ◆ Slightly hazardous (WHO III) ◆ Broad spectrum acaricide ◆ Sulphur is attractive to livestock hence keep livestock away ◆ Moderately hazardous (WHO II) ◆ Spray only once on the underside of the leaves especially after staking and pruning. ◆ Not classified by the WHO

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