

Puccinia fungal rusts on lemon grass

Puccinia species



Rust caused leaf spots on lemon grass (photo: S. Nelson)



Heavily rusted lemongrass with some entirely brown and blighted leaves (photo S. Nelson)

| Prevention | Monitoring | Direct Control | Direct Control | Restrictions | |
|---|---|--|--|--|--|
| <ul style="list-style-type: none"> Do not purchase or distribute rusted plants Keep plants growing vigorously so that they tolerate the rust: e.g. use composts, mulches, fertilizer, and in dry season also water the plants But do not use overhead irrigation as this will favour rust Avoid planting large numbers of lemongrass close to one another Plant lemongrass in well drained soils in a relatively dry or well-ventilated area to minimize the time of leaf wetness after rainfall Infected residues or dry rusted leaves should be collected and destroyed Keep weeds under control to reduce humidity in the lemongrass canopy | <ul style="list-style-type: none"> This disease only occasionally occurs, thus check your field 1 x per month If you have seen rust the previous cropping seasons, then check your field 1 x per week Particularly under more cool humid tropical weather, rust grows quickly Look for the initial symptoms of tiny, light yellow spots that later develop into red-brown elongated, stripe-like, brown lesions that coincide with leaf veins on both sides of the leaf. Later lesions on the lower leaf surface erupt and develop dark, cinnamon-brown pustules on the spots (you can see with hand lenses). | <ul style="list-style-type: none"> Periodically prune, cut back, or thin out diseased lemongrass plants so that disease-free re-growth can occur; destroy diseased plant material (do not use it around lemongrass plants as mulch) | <ul style="list-style-type: none"> In most cases, chemical intervention is NOT justified. Fungicides may be used when extreme disease spread and infestation is expected. Suggested fungicides are mainly protectants against further infestations, thus can only moderately suppress already established rust. | <ul style="list-style-type: none"> When using a pesticide, always wear protective clothing and follow the instructions on the product label, such as dosage, timing of application, pre-harvest interval, max number of sprays, restricted re-entry interval. WHO toxicity class II pesticides might not be allowed in local IPM schemes. Always consult recent list of registered pesticides (ZEMA). | |
| | | | <ul style="list-style-type: none"> Mancozeb or zineb -based products might be used as foliar sprays. Dithio-carbamate pesticide group. | | <ul style="list-style-type: none"> WHO toxicity class U (unlikely to present acute hazard in normal use), Pre-harvest interval (p.h.i.) at least 14 d, restricted re-entry interval (r.e.i.) 3 d, max 2 sprays in min. 7 d interval. Do not treat wet crop. |
| | | | <ul style="list-style-type: none"> Oxycarboxin -based products for foliar sprays. Succinate dehydrogenase pesticide group. | | <ul style="list-style-type: none"> WHO class III (slightly hazardous), P.h.i. at least 14 d, r.e.i. 1 d, Min retreatment interval 7 d. Max 2 sprays. |
| | | | <ul style="list-style-type: none"> Sulphur -based products when disease appears, repeat 2 to 3 weeks later. Multi-side action pesticide. | | <ul style="list-style-type: none"> WHO class III (slightly hazardous). P.h.i. at least 14 d, r.e.i. 1 d, Min retreatment interval 7 d. Max 2 sprays. Spray in mornings so that sulphur sticks to the dew on leaves. |
| | | | <ul style="list-style-type: none"> Combinations of iprodione, trifloxystrobin, triticonazole | | <ul style="list-style-type: none"> WHO class III (iprodione, triticonazole: slightly hazardous); class U (trifloxystrobin: unlikely to present acute hazard in normal use). P.h.i. min. 7 d, r.e.i. 1 d, Max 3 sprays in min. 7 d intervals. Very toxic to aquatic organisms. |
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Zambia

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