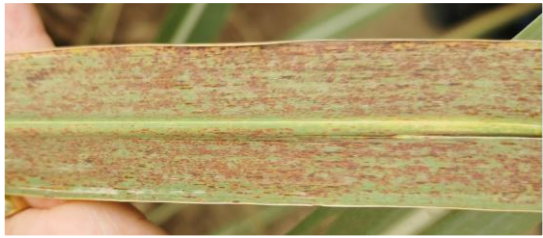


## Rust identification – general

Red to brown marks (lesions) will always be visible on both the upper and lower leaf surfaces. The lower leaf surface may feel rough and if you check carefully, you should see that the epidermis (skin) of the leaf is broken and spores may be visible.

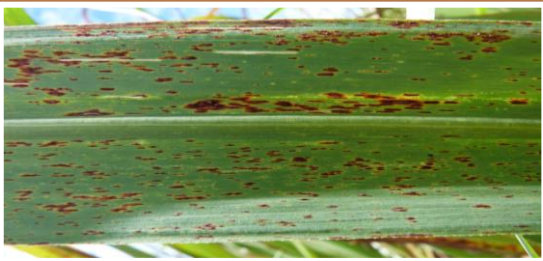


### Orange rust

- **Lesions:** Orange to reddish brown, usually less than 4mm long  
Often more severe in the middle of the leaf extending to leaf tip
- **Spores:** Orange to cinnamon-brown, relatively abundant. Usually on the lower leaf surface but may be present on upper leaf surface if damage severe.
- Infects cane of all ages
- Favoured by warm (20-25°C), wet conditions, high humidity

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
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NOTE: The calendars indicate the time of year when symptoms are likely to be most common and severe.



### Brown rust

- **Lesions:** Dark brown to reddish brown, up to 20mm long  
Usually more severe towards the leaf tip
- **Spores:** Cinnamon to brown, usually sparse. Mainly on the lower leaf surface, rarely on the upper surface
- Tends to infect cane younger than 6 months
- Favoured by cool, misty conditions, heavy dews

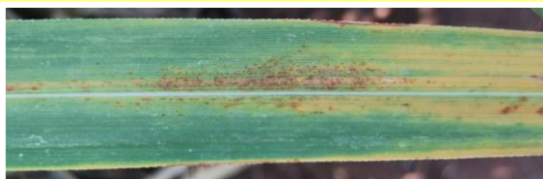
JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
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### Tawny rust

- **Lesions:** Dark brown to reddish brown, up to 20mm long. Purple discoloration around the lesion common.
- Usually more severe towards the leaf tip
- **Spores:** Bright orange when fresh. Abundant. More abundant on lower leaf surface but common on upper surface.
- Infects cane of any age
- Favoured by cool, misty conditions, heavy dews, high humidity

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
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### Yellow sugarcane aphid (YSA)

- Red flecks on the leaves after feeding by YSA. These may combine to form large patches of reddened tissue and be observed on one side or both sides of the leaf
- Both leaf surfaces will be smooth. The lower leaf surface will not appear rough as with rust and no spores will be visible
- Leaves may turn yellow and some varieties (e.g. N57) may turn purple
- Patches of yellow may develop in the
- Aphids may be present or may have dispersed by the time symptoms develop

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
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### Mite injury

- Red flecks on the leaves after feeding by mites. These may combine to form large patches of reddened tissue and are generally only observed on one side of the leaf
- Both leaf surfaces will be smooth and shiny. The lower leaf surface will not appear rough as with rust and no spores will be visible
- Large areas of the field may turn brown
- The mites have usually dispersed by the time symptoms appear. White exoskeletons may be observed in some cases
- Most likely during hot, dry weather