**Puccinia xanthii var. parthenii-hysterophorae**

- Summer rust infection on parthenium
- Early summer rust infection
- Summer rust on underside of leaf
**Puccinia xanthii var. parthenii-hysterophorae, summer rust**

**Origin**
- Occurs naturally in Mexico.

**Biology**
- Germination at 15–30ºC and 5+ hours of leaf wetness (or high humidity).
- 1 generation/9 days at optimum conditions.
- Teliospores (brown) underneath leaf won’t wipe off.
- Basidiospores (white) carried by wind to infect new plants.

**Australian distribution**
- Widespread in central and north Queensland (grey shading).
- Incidence varies seasonally and is dependent on climatic conditions.
- Recently introduced and established in south and southeast Queensland (blue shading).

**Potential impact**
- Spores can cover entire leaf surface.
- Successive infections can result in leaf necrosis and plant mortality.

**Collection and redistribution**
- Collect rusty leaves and package them flat between sheets of paper towel.
- Pin rusty leaves onto stems of new growing parthenium (viability ~ 7days).
- Collect whole rusty plants and transplant in amongst new growing parthenium.