



DISEASES OF SOYBEAN

(Glycine max)



MAJOR DISEASES SOYBEAN

(Glycine max)

FUNGAL DISEASE	
RUST	<i>Phakopsora pachyrhizi</i>
RHIZOCTONIA BLIGHT	<i>Rhizoctonia solani</i>
SEED AND SEEDLING ROT	<i>Fusarium, Rhizoctonia, Phytophthora, and Pythium</i>
BACTERIAL DISEASE	
BACTERIAL PUSTULES/SPOTS	<i>Xanthomonas axonopodis pv. glycines</i>
VIRAL DISEASE	
SOYBEAN MOSAIC	<i>Soybean mosaic virus</i>

RHIZOCTONIA BLIGHT

SYMPTOMS :

- The infection is common during the late vegetative stages.
- Initially circular to irregular green water soaked spots with reddish - brown margin appear on older leaves, sometimes on older leaflets.
- At the later stage of disease the spot turns tan or brown colour and the spots start to appear on the petioles, stem and young pod.
- Brown protrusion grows on stems and petioles. Agglutinations of leaves with cottony fungal growth are also common.
- Severe infection cause pod blight and defoliation.

PATHOGEN:

Rhizoctonia solani(Sub-division: Deuteromycotina)

RHIZOCTONIA BLIGHT



Disease Cycle

Primary infection – Sclerotia in soil

Secondary infection – Water

Favourable condition

Warm temperature and high humidity favours disease development.

Management

Soil drenching with Validamycin @ 0.2%.

BACTERIAL PUSTULES/SPOTS

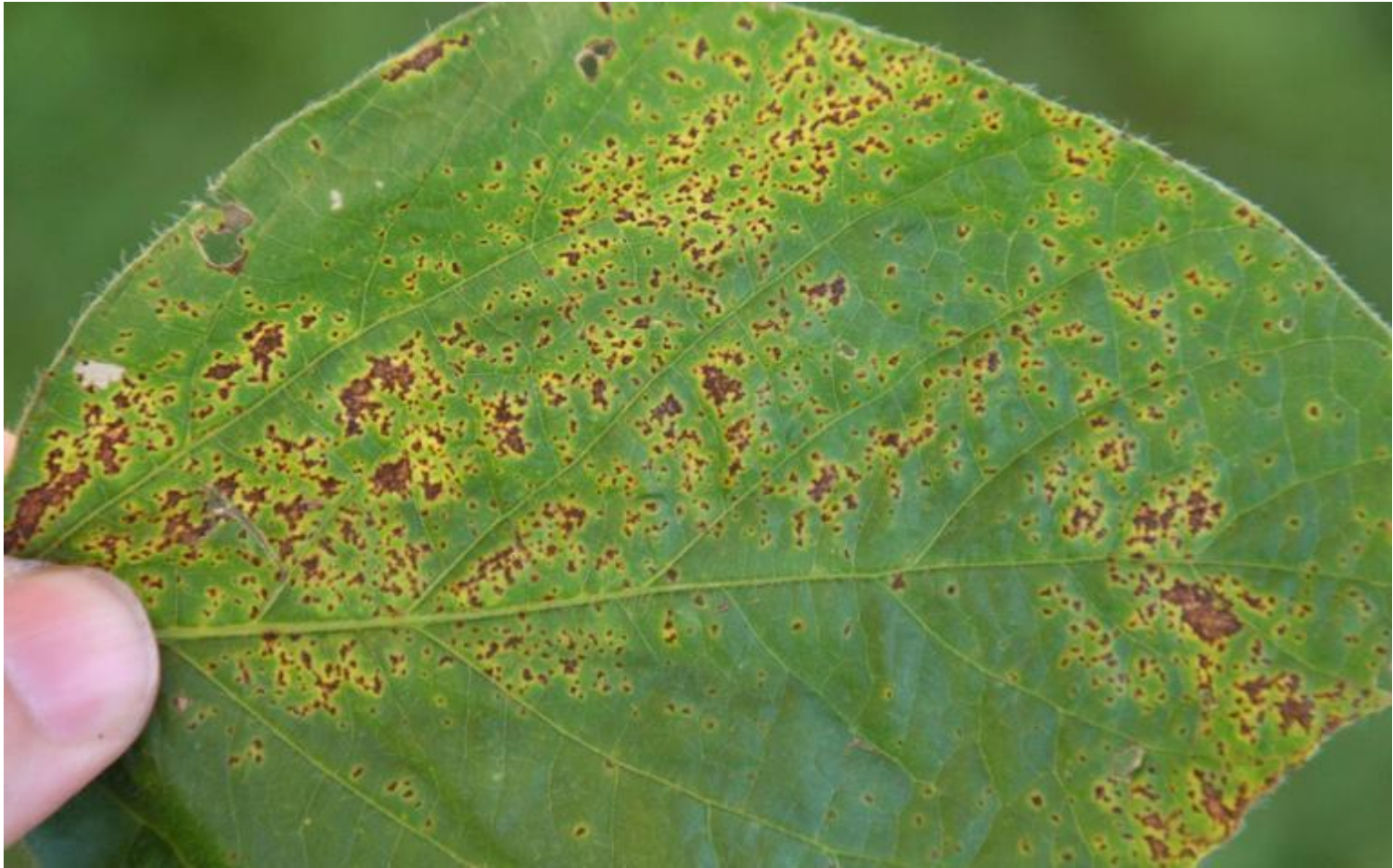
SYMPTOMS

- Symptoms are evident as tiny, light green spots with elevated centers that later on turn into raised light coloured pustules , typically without exudates.
- Infection is more frequent on the lower ones.
- Spots may vary from minute specks to large, irregular, mottled brown areas.
- Severely affected portions of leaves are torn away by wind imparting a ragged appearance to plants, and results in premature defoliation.

PATHOGEN

Xanthomonas axonopodis pv. glycines

BACTERIAL PUSTULES/SPOTS



Disease cycle

Primary infection – Seed and plant debris

Secondary infection – Ooze spread by water

Favourable condition

The disease appears in a severe form when warm temperatures and frequent showers prevail during growing season.

Management

- Remove and burn infected plant debris.
- Crop rotation with grain crop is recommended
- Two sprays at 45 and 55 DAS with a mixture of Streptocycline @ 0.01% + Copper oxychloride @ 0.3%.