

Ramularia lifecycle

SAC



GS0 Ramularia seed-borne
Seed treatments?



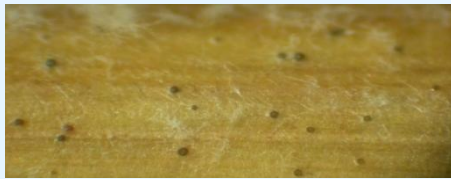
G10-13 Ramularia detectable by diagnostics but no visual symptoms



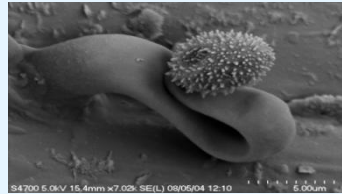
GS25-30 Ramularia spots on dying leaves

GS25-30 Fungicides can reduce later disease epidemic.

GS45-49 Is best timing to protect crops with fungicide



Asteromella spores on straw



Airborne spores disperse when leaves are wet



Fungus detected inside leaves 2-4 weeks before symptoms appear.



GS65 Physiological and weather stresses lead to rubellin production by fungus. Symptoms appear when rubellin is activated by light



GS75-83 Ramularia symptoms on heads and awns

