

Diseases of oilseed rape and other crops in the rotation in southeastern USA

D. V. Phillips*, B. M. Cunfer, G. D. Buntin, and P. L. Raymer

University of Georgia, Griffin Campus, 1109 Experiment St., Griffin, Georgia 30223, USA

Commercial production of oilseed rape in southeastern USA began in 1989 in the Piedmont Plateau regions where true winter-type cultivars are grown in the winter season. In the early 1990's production shifted to the warmer Coastal Plains regions where spring-type cultivars produce excellent yields in the winter season and are usually doublecropped with a summer crop. *Sclerotinia* stem rot was the first major disease to appear. It was an immediate problem in the Piedmont Plateau with frequent 30% plant losses in first-year production fields. When production moved to the warmer, sandier Coastal Plains soils severe disease occurred only during wet years. In addition to the typical stem lesions during and after flowering, atypical rosette stage infections and fields with a predominance of basal stem lesions were frequently observed, prompting doubt that all observed symptoms were caused by the same causal agent. Both typical and atypical symptoms are now known to be caused by *Sclerotinia sclerotiorum*. The second major disease to appear was Phoma blackleg. Severe damage from blackleg was first observed in 1994. Cultivars selected for resistance in southeastern USA or in Australia are usually resistant when grown in the other region, suggesting that predominant *Leptosphaeria maculans* biotypes may be similar. Severe *Alternaria* spp. infection of seed has occurred infrequently. There is no evidence that oilseed rape production increases nematode or disease damage to summer crops, except for occasional stand reductions associated with *Rhizoctonia solani*. Likewise, production of summer crops does not appear to increase incidence or severity of diseases on oilseed rape. A single year of oilseed rape production is very effective in reducing the incidence and severity of take-all of wheat, the major winter season crop in the region.