

DISEASE MANAGEMENT - AN OVERVIEW

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Commercial cotton crops throughout NSW have been surveyed in November and March of each season since 1983 to determine disease distribution, incidence and severity. Cropping history, field preparation, seed rate, plant stand and the amount of crop residue remaining from the previous cotton crop have been recorded for each field inspected. Between 80 and 100 commercial fields have been inspected in each survey.

The results of these surveys (Figure 1) indicate that the incidence and severity of bacterial blight, *Verticillium* wilt and seedling mortality has been reduced in recent years. This improvement can mainly be attributed to the use of new cultivars with better resistance and/or tolerance to disease. The results also show the adoption of permanent bed systems with and without middle-busting, the increase and decrease in the amount of crop residues on the surface, the adoption of raking and burning and changes in plant stands.

While the incidence and severity of blight, *Verticillium* wilt and seedling diseases may appear to be declining it should be remembered that the incidence of black root rot and *Alternaria* leaf spot appear to be increasing. *Phytophthora* boll rot can be important in some seasons and a *Fusarium* wilt has now been reported on the Darling Downs of Queensland.

The use of sound crop management practices is important in reducing the impact of disease. Apart from the choice of cultivar the crop rotation, nutrition, residue management, weed control, timing of operations, use of fungicides and quarantine must also be considered if the potential losses to plant disease are to be minimised.

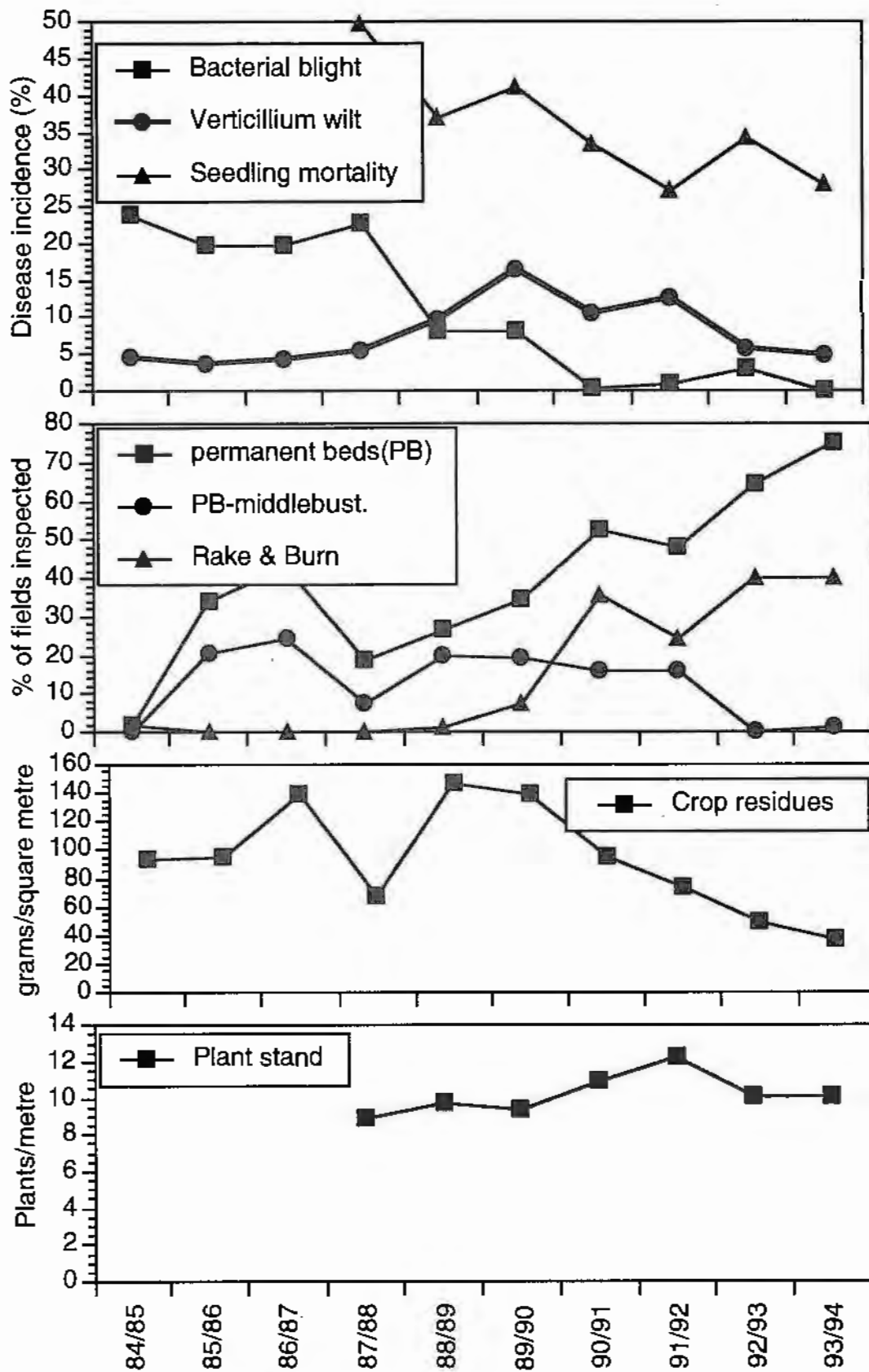


Figure 1 Results of disease surveys in commercial cotton crops throughout New South Wales 1984 -1994.