

General disease and pest evaluation scales

The incidence of plants with disease symptoms can be obtained by counting the number of healthy and diseased plants in a plot. The Modified Cobb scale can be used for estimating the amount of leaf area infected by a disease such as bean rust (Table 1).

Table 1. Modified Cobb scale for intensity of infection.

	Description
0	No visible infection
1	1-5% leaf area infected
2	6-10% leaf area infected
3	11-25% leaf area infected
4	26-40% leaf area infected
5	65-100% leaf area infected.

Source: Stavely (1985).

CIAT developed a (1-9) scale for the evaluation of bean germplasm to fungal and bacterial pathogens (Table 2). This is a simple scale useful for screening bean breeding lines.

Table 2. General scale to evaluate the reaction of bean germplasm to fungal and bacterial pathogens.

Rating	Description	Comments
1	No visible symptoms	Germplasm useful as parents or commercial varieties
2	Very light symptoms resulting in little or no economic damage	
3		
4	Visible and conspicuous symptoms resulting in only limited economic damage	Germplasm can be used as commercial varieties or as sources of resistance to certain diseases
5		
6		
7	Severe to very severe symptoms causing considerable yield loss or plant death	Germplasm in most cases is not useful as parents or commercial varieties
8		
9		

Source: CIAT (1987)

References

CIAT (Centro Internacional de Agricultura Tropical). 1987. Standard system for the evaluation of bean germplasm. Van Schoonhoven, A. and M.A. Pastor-Corrales (compilers). Cali, Colombia. 54 p.

Stavely, J.R. 1985. The Modified Cobb Scale for estimating bean rust intensity. Ann. Rep. Bean Improv. Coop. 28:31-32.