

Considerando os exemplos abaixo, calcule as taxas de progresso das doenças e a quantidade inicial de inóculo utilizando as transformações logística e monomolecular. Apresente os gráficos dos dados originais, os gráficos com os dados transformados e a regressão linear. Indique qual modelo seria o mais adequado e justifique.

Flax wilt is caused by the fungus *Fusarium oxysporum* f. sp. *lini*. Chlamydospores of the fungus persist for several years in the soil, and when flax is planted in an infested field, the young plants are infected through the roots. An extensive soil survey was made of a heavily infested field, and it was found to contain an average of 57 colony-forming units per gram of soil. When a susceptible flax cultivar was planted in this field, the percent of plants showing wilt symptoms increased with time as follows:

Days After Planting	% Plants Infected
5	18
15	56
25	82
35	91
45	96
55	98

Halo blight of beans is caused by the bacterium *Pseudomonas syringae* pv. *phaseolicola*. The major source of initial inoculum is infected seeds that when planted give rise to plants with lesions on the primary leaves. Bacteria produced in these lesions are splash dispersed to adjacent healthy plants. New lesions can themselves produce secondary inoculum within about 4-5 days. Under conditions moderately favorable for disease development, the following observations were made of disease progress:

Days After Planting	% Plants Infected
5	1
15	4
25	15
35	31
45	65
55	88
65	94

Asian Grapevine Leaf Rust (AGLR): The disease incidence and severity assessments of AGLR were carried out weekly, beginning in the fruit development stage. AGLR incidence was defined as the number of leaves with symptoms divided by the total number of leaves per shoot/plant evaluated. The disease severity was defined as the percentage of diseased leaf area (occupied by pathogen pustules) and was estimated using a diagrammatic scale. AGLR severity was estimated for each leaf and was expressed by the mean severity of the leaves per shoot evaluated.

Days After Planting	% Area with symptoms
60	4,92
66	14,75
73	54,10
80	90,16
98	99,0
106	100,00
112	100,00
119	100,00