Since then, however, two northward migrations of the psyllid in 1982 and in 1987 established it in all seven counties in the north. This movement has been attributed to southerly winds coinciding with the peak psylla population months of June to August; the warmer winters of 1982 and 1987 when the mean monthly temperatures of December and January were 2°C above normal; and with the increased planting of citrus in the north where previously there were only isolated orchards.

Seasonal Abundance and Natural Enemies of Diaphorina citri (Hemiptera: Psyllidae) in Citrus Orchards of São Paulo State, Brazil

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ABSTRACT. Surveys for Diaphorina citri (Hemiptera: Psyllidae), the vector of huanglongbing (HLB) (greening), were conducted in São Paulo State, Brazil, to determine its seasonal abundance and to identify its natural enemies. This study was done to obtain information which would be needed to control HLB should it ever occur in Brazil. The highest psyllid densities were observed from December to March, but psyllids could be found year round. No parasites were observed, but the coccinellid, Scymnus sp., was associated with the psyllid.

Temporal and Spatial Dynamics of Citrus Blight in Brazil


ABSTRACT. The temporal and spatial progress of citrus blight in Brazil was evaluated in three areas of São Paulo state between 1986 and 1992 and in one area of Minas Gerais state between 1983 and 1986. The trees were recorded as blighted or non-blighthed by means of visual assessment and the water uptake test. The last evaluation in Minas Gerais was monitored using the 12 kDa protein test. The first two areas in São Paulo yielded non-useful data due to inconsistent evaluations. The data of the two remaining areas were analyzed using five disease progress models (Exponential, Linear, Gompertz, Monomolecular and Logistic) and the spatial data was studied by means of Two-Dimensional Distance Class Analysis, dispersion index, Geostatistics, runs and centroid analysis. The temporal progress in the remaining São Paulo area showed a linear trend which is typical of non-infectious diseases, whereas the Minas Gerais data adjusted better to the exponential model. These extremely different responses could be assigned to different cultural practices; in the first area, affected trees were periodically removed and new trees planted; in the second area, tree removal did not occur. The spatial patterns did not differ significantly between the two areas. No significant discrete cluster was observed in the areas or near the edges. No significant focus could be localized and the centroid did not appear to move in any direction. Initially, affected trees appeared at random but, with time, some progressive clustering occurred. Blighted trees tended to be more clustered within rows than across rows.

The Damage Caused by Virus and Virus-Like Diseases of Citrus and Measures for Control in Anhua County, Hunan Province, China

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ABSTRACT. Citrus production in Anhua County in Hunan Province, China, only began in the mid-1870s. Unfortunately, the lack of knowledge of virus and virus-like diseases in the county at