

## **Multivariate analysis and wavelet transfor applied to modelling the multispectral digital signature of reflected foliar radiation in eucalyptus with leaf spot disease.**

**José Raimundo de Souza Passos<sup>1</sup>; Eniuce Menezes de Souza<sup>2</sup>; Edson Luiz Furtado<sup>3</sup>; João Ricardo Favan<sup>4</sup>; André Stefanini Jim<sup>5</sup>; Márcia Lorena Alves dos Santos<sup>6</sup>.**

### **Abstract:**

The aim of these study is apply multivariate techniques of principal component and linear discriminant function as wavelet transform to early detection the leaf spot disease caused by *Xantomonas* sp.. in eucalyptus seedlings in nurseries. Through these techniques can early detection the disease with 25% error classification.

**Keywords:** principal components, linear discriminant function, wavelet transform, *Xantomonas*.

---

<sup>1</sup> Departamento de Bioestatística. Instituto de Biociências. Universidade Estadual Paulista “Júlio de Mesquita Filho” – UNESP. SP, Brasil.

<sup>2</sup> Departamento de Estatística da Universidade Estadual de Maringá-PR.

<sup>3</sup> Departamento de Produção Vegetal – FCA/UNESP, Botucatu-SP.

<sup>4</sup> FATEC/Pompéia Shunji Nishimura, Pompéia-SP.

<sup>5</sup> Doutor PPG Ciência Florestal – FCA/UNESP, Botucatu-SP.

<sup>6</sup> M.Sc. Bioestatística - Universidade Estadual de Maringá - UEM