

THE WOODWASP *SIREX NOCTILIO* IN BRAZIL – MONITORING AND CONTROL

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Until 1988, only a small number of outbreaks of native pests had been recorded in 1,8 million ha of *Pinus* plantations in Brazil. Most of these stands were planted a small number of species at high density and inadequate forest management. In 1988 an outbreak of *Sirex noctilio* Fabricius was recorded in Southern Brazil and nowadays it is present in 350.000 ha, in the Southern and Southeast. With the presence of the European woodwasp in the country, it is estimated that the potential losses caused by this insect may reach US\$ 23,2 million annually. This resulted in an immediate change in the handling of these forest plantations, with the introduction of the Integrated Pest Management (IPM) as a part of the Forest Management Programs. In 1989, it was bred by the NATIONAL PROGRAMME OF WOODWASP CONTROL. This programme is broad in scope and also includes the early detection and monitoring of the spread through the use of trap trees (trees artificially stressed with herbicides) and ground inspections. For its control silviculture techniques are preventively used, especially the thinnings, preventing competition and providing health to plantations; and biological control, mainly with the most effective agent, the nematode parasite *Beddingia siricidicola* Bedding, a nematode that sterilizes the females and reaches 70% to near 100% of parasitism. Other parasite introduced was *Ibalia leucospoides*, an egg parasitoid that reach about 25% of parasitism. Two parasitoids *Rhyssa persuasoria* and *Megarhyssa nortoni* were introduced in 1997 and 1998, but they did not establish. The biological control associated to the silvicultural control was essential to put the *Sirex* population under control in Brazil.