

C7p: DEVELOPING SUCCESSFUL BIOLOGICAL CONTROL PROGRAMS IN FOREST PLANTATIONS

The parasitoid *Psyllaephagus blastopsyllae* (Hymenoptera: Encyrtidae), as potential control of the eucalypt psyllid *Blastopsylla occidentalis* (Hemiptera: Psylloidea), in Brazil

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In view of future release for the control of the eucalypt pest *Blastopsylla occidentalis*, the parasitoid *Psyllaephagus blastopsyllae* was imported from South Africa into Brazil in 2015, where the specimens were kept in quarantine for preliminary bioecological studies. Within a few months, the specimens died and the establishment of a viable culture failed. While another introduction was planned, the parasitoid was found in eucalyptus plantations in Minas Gerais. This changed the focus of the project to monitor the population in the plantations in Minas Gerais and to search for the parasitoid in other areas in Brazil with eucalypt plantations. The monitoring of the parasitoid showed that the pest is associated with various eucalypt clones, especially those of *Eucalyptus camaldulensis*.

The occurrence of the parasitoid was positively correlated (0.82) with the pest population but indifferent to the type of clone. The percentage of parasitism was higher between June and August, the dry season, coinciding with the population peak of the pest. Besides Minas Gerais, the parasitoid was also found in São Paulo and Mato Grosso do Sul. In a survey in SP in October 2018, the observed percentage of parasitism was around 9%. A similar survey in Três Lagoas, MS, in August, yielded a percentage of parasitization of about 11%. Our data represent a small sampling in terms of total eucalypt plantations in Brazil. For promoting biological control, we suggest to increase the number of areas to be surveyed for the occurrence of the parasitoid and to study its control potential.