

## Current Situation of *Eurhizococcus brasiliensis* (Hemiptera: Margarodidae) in Brazil

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One of the most prominent insect pests that limits the production in different wine-producing regions of Brazil is the Brazilian ground pearl *E. brasiliensis* (Wille). This scale attacks roots of grape vines causing damage due to its sap-sucking habits, which leads to a reduced production and eventually to plant death. *E. brasiliensis* has a complex biological cycle. Parthenogenetic eggs are laid inside mature cysts, and the crawlers emerge from the ruptured cysts. In the mobile phase, nymphs have little self-dispersal capacity. They move close to the roots and remain feeding until full development. The complete life cycle usually lasts for one year. The parthenogenetic females appear and remain alive inside the cysts until they lay their eggs (asexual reproduction). The species can also reproduce sexually; in this case, the cyst becomes a mobile female that goes to the surfaces at the time of mating, to copulate with the winged male, and later returns to the ground to lay their eggs. One of the important aspects of the survival of *E. brasiliensis* is its interaction with ants (Hymenoptera: Formicidae) that harvest sugary excretions ('honeydew') they produce in a mutualistic association, in which both the ant and scales are benefited. *Linepithema micans* (Forel) is the most frequent and abundant ant that disperses *E. brasiliensis* in vineyards in southern Brazil, the main grape-producing region in the country. *E. brasiliensis* has been controlled using neonicotinoid insecticides applied to the soil by drench or fertigation. However, there are restrictions on the presence of toxic residues in fruit and the risk of environmental contamination. An alternative to reduce scale infestation in vineyards may be the control of *L. micans* with toxic baits. Experimental results has shown that hydramethylnon baits are efficient in the control of *L. micans*, being another tool to reduce the infestation of *E. brasiliensis* in vineyards (CNPq, Fapergs).

Keywords: Coccoomorpha, Formicidae, hydramethylnon, control, vineyards.