CAB Direct Abstract

Updating of data on economic entomology on Wallis and Futuna. Gutierrez, J.; ORSTOM, Noumea, New Caledonia, Actualisation des donnees sur l'entomologie economique a Wallis et a Futuna., 1981, pp 24 pp., 16 ref.

In this review of the arthropod pests (mainly of crops) on the Pacific islands of Wallis and Futuna, lists of injurious arthropods are given that include Musca domestica L., Haematopinus suis (L.), 5 species of Aedes and 3 of Culex, of which A. aegypti (L.), A. polynesienis Marks, A. vexans (Mg.) and Culex quinquefasciatus Say (pipiens quinquefasciatus) are of medical importance. It is suggested that neglected semi-wild coconut plantations damaged by Oryctes spp. provide breeding sites for mosquitoes and that better care of the trees and of the ground and vegetation beneath would help to reduce larval populations. ADDITIONAL ABSTRACT:Information acquired during a survey in 1981 on the injurious insects of the Pacific islands of Wallis and Futuna is reviewed. The main economic plant on both islands was the coconut palm, of which the nuts were used for pig fodder as well as for human food; nevertheless, most plantations were old, semi-wild and neglected, and on Wallis infestation by Oryctes [probably O. rhinoceros (L.)] was heavy. The principal method of control was the introduction and spread of the pathogen Baculovirus oryctes, which reduced the average number of infested palms from 60% in 1967 to 20% in 1981. It is recommended that further reductions should be made through cultural means such as improved care of the trees and clearing of the vegetation beneath, and also through the introduction of other strains of the virus in order to prevent development of resistance to the 1st strain by the beetle. Oryctes is so far unknown on Futuna. Notes are given on other coconut pests such as Aspidiotus destructor Sign. and Graeffea crouanii (Le Guillou) on both islands and Agonoxena argaula Meyr. on Futuna only; the 1st and last species were usually kept under natural control by parasites, and the 2nd caused heavy damage that appeared to be limited to some isolated clumps of coconut palms. On taro on Wallis, the ant Wasmannia auropunctata (Roger), which had been accidentally introduced in 1972, interfered with the harvesting of the crop by its painful bites; it also appeared to encourage large populations of Tarophagus proserpina Kirk. on taro, probably by eliminating the coccinellid predators of this pest. Attention is also drawn to the introduction in 1978 to Wallis of Thrips palmi Karny from New Caledonia, which damaged various vegetables and was particularly injurious to cucurbits such as cucumber and watermelon; the most effective means of control was methiocarb (Mesurol 50) at 100 g/hl. Minor pests are also recorded on fruit (especially citrus and banana) and vegetable crops (especially tomato). Recommendations are made for the creation of a system of phytosanitary control between Wallis and Futuna to prevent the indroduction of insect pests in air freight into Futuna. Lists are appended of the main crops on these islands, with the arthropod families attacking them, and of the 13 species of mites and 80 species of insects found, with their food-plants, animal hosts or (in the case of parasites or predators) insect hosts or prey.

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