



Alert

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INTRODUCTION OF GIANT AFRICAN SNAIL TO VARIOUS PACIFIC ISLANDS

The Giant African Snail (GAS) (*Achatina fulica*) has recently invaded two more countries in the region. It was reported in Western Samoa in late 1994 and more recently in 1995, and lately was reported in Tuvalu on the island of Vaitupu in May 1996.

The Ministry of Agriculture, Forests, Fisheries and Meteorology in Western Samoa has tried to contain the pest within three villages (Alafua, Faleula and Nun) on the island of Upolu. In Tuvalu, early detection of the pest made it possible for the Agriculture Department staff to take immediate actions to try to confine and eventually eradicate the pest on the island of Vaitupu.



The pest was first introduced into the region from its origin in East Africa in 1938. At present, it has become established in American Samoa, Federated States of Micronesia, French Polynesia, Guam, Marshall Islands (on Kwajalein atoll), New Caledonia, Northern Marianas, Palau, Papua New Guinea, Wallis/Futuna, and Western Samoa. So far, GAS has not been reported from Cook Islands, Fiji, Kiribati, Nauru, Niue, Pitcairn Island, Solomon Islands, Tokelau and Tonga.

The life span of GAS can last up to six years depending on environmental conditions. It favours wet weather. The pest is nocturnal, searching for food at night and hiding in the soil and under organic matter during daytime. It can also become active during daytime when it is cloudy and wet. Adult snails can crawl distances of up to 50 meters during a single night. GAS has both female and male sex organs within the same individual. However, it requires mating between individuals in order to reproduce. Young snails become sexually mature within 3-5 months after hatching from eggs. Individuals begin laying eggs 15 days after mating and continue laying on a monthly basis during active periods. The eggs, which are 5 mm in diameter, are round and white in colour and are usually found in batches just beneath the soil surface. A batch of eggs laid by an individual snail contains about 300 eggs. The eggs hatch within 15 days after laying. The number of eggs laid by each individual increases with age of the snail.

GAS feeds on leaves, and sometimes tubers, of many types of crops and ornamentals as well as organic matter, excreta and any organic refuse. They can become destructive to crops and ornamental plants if they are present in high numbers, especially if they are left unchecked. The snail pest can be easily transported between countries. It attaches itself to containers, secondhand vehicles, used machinery, empty bottles and other materials which have been left lying on the ground for some time. It is extremely difficult to eradicate this pest from an area once it has become established (Mead, 1973).

This publication contains information on new agricultural pest and disease outbreaks or other topical information on animal health and plant protection. Please contact the source given for further information on the specific report. New reports should be sent to the Animal Health Officer or Plant Protection Officer, South Pacific Commission, Private Mail Bag, Suva, Fiji. Tel:(+679) 370 733; Fax:(+679) 370 021 ;Telex: FJ 2385.



To prevent the introduction of GAS into countries which do not have GAS yet, the following quarantine measures are recommended:

- Advise importers/exporters to fumigate all containers and other materials in countries of origin before shipping, especially from countries which have the GAS;
- Steam clean all secondhand vehicles and machinery immediately upon arrival at ports of entry in importing countries;
- Thoroughly inspect all shipments of secondhand goods imported from countries which have GAS upon arrival at ports of entry;
- Any live snails intercepted must be destroyed immediately, either by burning or by immersing in sea-water.

For countries where GAS has established, the following control measures are recommended

- Encourage villagers to collect snails and kill them by burning or immersing in sea-water;
- Clear all rubbish and weeds within and around infested areas to reduce breeding places for the snail;
- Prevent movement of planting materials from infested areas to other places where the snail is not present;
- Apply chemical baits (Blitzem pellets) within and around infested areas. Caution should be taken to apply these baits in places which children and domestic animals cannot reach.

For further information, contact the SPC Plant Protection Service in Suva, Fiji.

Telephone: (679) 370 733

Fax: (679) 370 021

Sources:

SPC Pest Advisory Leaflet No.6

Mead, A. R. 1973. A prognosis in the spread of the Giant African Snail to continental United States. Malocologia: 14:427

