

# **Baseline Information on Golden Apple Snail Damage and Management Practices in Rice Farmers` Fields in Suriname**

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## **Area under rice production (ha. and %)**

Suriname has approximately 50,000 ha empoldered for irrigated rice production with two cropping seasons per year, a long season and a short season. The cropping intensity varies from 40 % to 80 %.

## **Extent of damage by golden kuhol (ha)**

Golden apple snail can damage almost 100 % of the field if no means of control are applied. The damage arises chiefly during the first three weeks after sowing while the fields are submerged.

## **Various methods adopted by rice farmers to control golden kuhol**

Chemical control is carried out with Fentin acetate (60 % WP), this is the most preferred method of control of the golden apple snail. Shortly after the last puddling the chemical is applied in the field, the fields must be under water for a couple days so those, snails in the soil become active and creep to the surface.

A cultural method, which is being applied is to drain the fields shortly after sowing then the snails become less active and may burrow into the soil.

## **Chemicals (pesticides) used for golden kuhol**

Fentin acetate (60 % WP) – at a rate of 0,5 kg/ha

Methaldehyde – this has been introduced very recently, the exact dosage is not known yet (1- 1.5 l/ha formulation 400 FC /L)

Farmers` criteria for the choice of a chemical are immediate kill and cost

There is no utilization of golden snail by farmers or others

## **On-going research:**

### *Control of golden snail with Caragoal 400 FC (ai metaldehyde)*

Caragoal 400 FC with active ingredient metaldehyde is an effective molluscicide against the control of snails in rice production. Trials carried out earlier by Luxan in 1998 and 1999 in Suriname gave good results. In these trials however the emphasis was on the mortality rate of the snail, but we are now interested to know at what dosage the product causes the snails to be inactive (no feeding activity on young rice plants) during the window of time that the young rice plants are susceptible for grazing by the snails. This window of time is established under laboratory conditions at 20 days after sowing.

The objectives of this trial are:

- To establish an effective crop protection and dose rate with Caragoal,
  - both when sowing is carried out under water without drainage within 20 days
  - as well as under water sowing with drainage after about 2 days and re-introduction of water after about 12 days.
- To have a crop protection approach (in other words, not a mortality approach)
- To establish at which (lower) dose rate of product an equal efficacy in relation to undamaged rice plants can be achieved (as under 100% mortality at day 1).