Control of the Kalutara Snail.

THIS pest (*Achatina fulica*), introduced some years ago from Madagascar, has spread over the whole of the wet zone low-country and is spreading in many Up-country districts.

It causes immense damage to vegetable and flower gardens and of late years has become a serious menace to certain estate green manures and cover crops. Two years ago this estate was covered with a beautiful carpet of Vigna which has since been almost completely destroyed. During the whole of 1927 all children who came to muster were sent off for an hour or two to collect snails and a total of at last 9,000 working hours was so employed. Towards the end of the year it was realized that the snails had got completely beyond control and the work was stopped.

It was represented to the Agricultural Department that the only effective check which we have against soil erosion in grown Rubber was in danger of extinction and the Department was requested to make enquiries in Madagascar as to what agency there controls the snail. So far the only "control" reported is a big bull-frog which eats them, but the Director of Agriculture is not in favour of such an importation.

Previously it was discovered at Peradeniya that the larva of a species of Firefly attacks the snails. The jungle crow also eats them, though unfortunately this bird is rare. On one occasion I shot an eagle whose crop was full of snails.

Dressings of Paris green and ashes or lime were tried early in 1927, but they either killed the Vigna or proved ineffective. Spraying with Arsenite of Copper also was tried but it is soon washed off the leaves by heavy rains, at a time when snails are most active.

It was noticed that snails are particularly fond of lime which is deficient in our soils but a necessity for their shells. They even eat dead snail shells. This indicated a method of poisoning, using Lime as bait, which has been tried out since April of this year. Various poisons such as Barium sulphate and Lead chromate were considered but for a start it was decided to try Arsenic. A consignment of arsenic was received in May and,

as a first trial, Lime washes were prepared at the rate of 5 gallons with respectively 2, 4, 8 ounces of Commercial Arsenic. This was dabbed on to stones in snail infected areas. A few deaths occurred. Similar amounts were then prepared but with the Arsenic, which is only very slightly soluble, converted into Arsenite of Lime. This was also fairly effective.

Arsenite of soda was then tried in varying proportions, thanks to Messrs. Lee, Hedges, Agents for Atlas Preservative. It was found that 4 to 5 gallons of a thick Lime wash containing one pint of "Atlas" was very deadly. Where this mixture has been put out considerable numbers of dead snails have been found. Many disappear, crawling into terraces and die there. Stones and terraces round the garden were splashed with the mixture, and whereas formerly the garden was infected, snails are rare.

A good thick cunjee of dirty or damaged rice should be added to the wash which should contain at least 20 lb. of Lime to the 5 gallons.

A likely method of application seems to be to put small but thick dabs along terraces at intervals of 5 feet and similarly on intervening rocks. Where possible the under side of projecting stones should be chosen as protection from rain. In gardens, the under side of old tiles or chatties may be used.

The Wash is Poisonous to Plants.

By poisoning old snail shells with a 1 in. 3 Atlas solution in water and distributing these, many of the younger snails are killed but the method is hardly practicable for estates.

Snails will not eat the fresh lime wash until it has become partly carbonated by exposure to the air.

The cost, including application, works out at about Rs. 2/50 per acre.

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