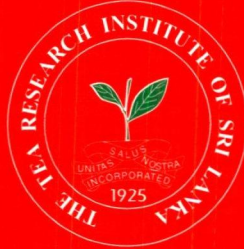


TRI - ADVISORY CIRCULARS



PEST MANAGEMENT

PM



Issued in: February 2003

Serial No. 1/03

SAMPLING FOR SHOT-HOLE BORER ASSESSMENT

(This cancels the Circular No. 1-3, serial No. 8/72 issued in May 1972)

In tea fields infested with Shot-hole borer it is essential to estimate the level of borer infestation before deciding on control measures.

1. When to sample

Mature fields: Sampling should be carried out in the final year of the pruning cycle.
Immature fields: Sampling should be carried out just prior to first proper prune.

2. How to sample

Sampling should be carried out in one or two hectare blocks separately. Blocks could be demarcated by natural boundaries such as roads, paths, ravines, drains, shade trees etc. wherever possible.

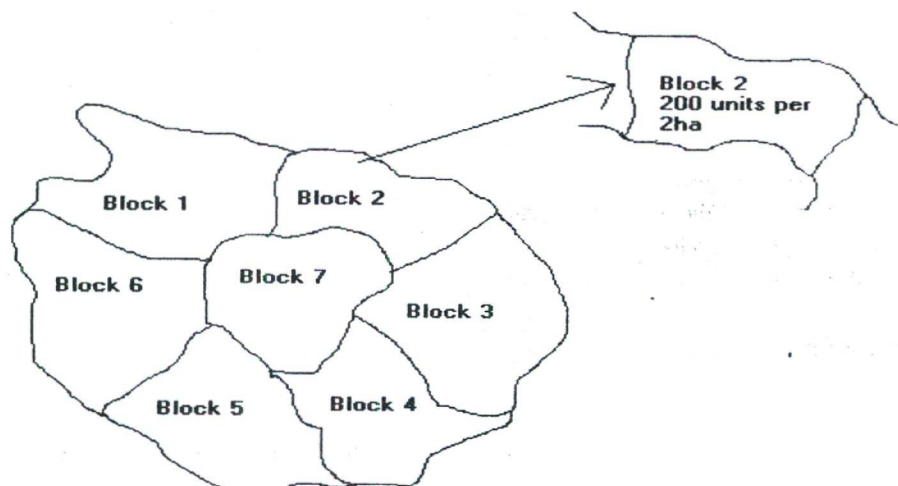


Fig.1 Division of a Field into Blocks for sampling

3. Standard units

Having selected a bush at random, remove a branch that would give a piece of stem 10 cm in length and 1 cm in diameter (brown streaky stem of pencil thickness). This piece of stem is referred to as 'standard unit'. The selection of the branches should be at random and no attempt be made to select only those showing signs of galleries.

The standard units should be split open and examined for galleries. When estimating the incidence of gallery making, one should bear in mind that the number of galleries per sample unit is immaterial. The unit that has one or more galleries is considered as a single infested unit.

If there is more than one clone in a given field each clone should be assessed separately.



- 1 – A unit with one gallery (galleried)
- 2 – A unit with no galleries (not galleried)
- 3 – A unit with two galleries (galleried)
- 4 – A unit with three galleries (galleried)

Number of galleried units = 3

Fig 2: The no. of units with galleries that is counted

Sampling should cover the whole extent of the block. It should comprise 100 per ha or 200 per 2 ha of standard units, taking not more than one unit per bush. If there is more than one clone in a given field each clone should be assessed separately.

4. Estimation of infestation

The standard units should be split open and examined for presence of galleries. The percentage incidence (as percentage gallery making) of gallery making (G%) is calculated as follows:

$$G\% = \frac{\text{No. of galleried units}}{\text{Total no. of units sampled}} \times 100$$

5. Recommendations

% Gallery making (G%)	Degree of infestation	Control measures
0-25%	Light	Not necessary
26-50%	Moderate	Necessary, to reduce future infestation
51-100%	Heavy	Essential

Please see TRI Circular PM2 for Control Measures.

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Talawakelle.

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