THE COFFEE BERRY BORER TRAP-AN EFFECTIVE PEST MANAGEMENT TOOL

The Coffee Berry Borer (CBB) trap was first introduced in Jamaica in 2001 as a means of attracting the female coffee berry borers (*Hypothenemus hampei*) as they go in search of new fruits during the crop cycle. Since that first introduction the Coffee Industry Board has imported approximately 50,000 of these traps. Most of them are already being used by farmers and most of these farmers have expressed satisfaction with the results as they have seen the traps capture large numbers of this pest.

Over the past two years trials carried out by the Coffee Industry Board have provided some very positive information. The study, which evaluated two trap types:

1) The original trap type (C) from 2001 and
2) A local type made from two litre drink bottles, (R), has shown a dramatic 70% reduction in the number of CBB captured in the second year over that which was captured in the first year. This is illustrated in Figure1 below.

![Figure1: Total CBB captured at two trial plots, Feb to June, 2005 and Jan to Dec, 2006](image)

<table>
<thead>
<tr>
<th>Total H. hampei</th>
<th>2005</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLOT B</td>
<td>371399</td>
<td>223964</td>
</tr>
<tr>
<td>PLOT A</td>
<td>709737</td>
<td>97362</td>
</tr>
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This is a very significant achievement given that when the pest population is high it is likely that there will be a high level of infestation. The resulting infestation at both sites in June, 2006 of 1.79% at Plot A and 1.57% at Plot B stand testimony to this as the CBB population was much lower in 2006 than in 2005. It should be noted that for both years and at both study sites the management practices of the pest remained constant. That is to say, post
harvest removal of residual fruits was done along with the application of endosulfan, which is the chemical recommended for managing this pest. Lower infestation translates to lower bean damage and therefore fewer defects and hence higher bean quality. The result of this is more saleable coffee and more income for the industry.

The second observation was that the traps provided a clear indication of the most active times of the pest. This is illustrated in Figure 2 below.

March and April were the busy months during the after-crop early flowering period, while as the fruit developed July and August were the active months. There was very little activity while the fruits were being harvested (September to December), with the exception of one study plot at one of the study sites. Here there was a significant increase in the number of the CBB captured during the month of December.

This information is very important to the coffee farmer. It tells us that field sanitation is very important in order to reduce the population level of the pest going into the new crop. The lower the pest population, the slower will be the rate of progression of the pest. Population management of the pest should therefore be a point of focus.
The third observation is that there is no great difference between the two types of traps in terms of the number of CBB captured. This is illustrated in figure 3 below.

Since two litre drink bottles are easily accessible these could be very useful in helping to reduce the CBB population at a relatively low cost. Being able to determine the movement or behaviour of one's target object must be an advantage. It is therefore up to the industry stakeholders to make positive use of this advantage.

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