Necrotic leaf removal: an effective method against the effects of the Sigatoka Leaf Spot Disease on the green life of bananas

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Context

**Green life** means:
Number of days between harvest and natural ripening process

French Caribbean Islands:
exportation by shipping transport

21 days

Minimum necessary green life

Sigatoka Leaf Spot Disease reduces green life
Experiment Design

120 plants

60
LEAF REMOVAL ONE MONTH BEFORE HARVEST

60
NO LEAF REMOVAL

CULTURAL PRACTICE:
Removing all necrotic leaves
Experiment Design

Classification by four disease levels:

Severity Index Intervals
(assessed at flowering date)

Based on visual estimation of necrotic leaf area

- Level 1 → 0-15%
- Level 2 → 15-25%
- Level 3 → 25-35%
- Level 4 → 35-45%

Fruits harvested at 900 dd
## Results

### Percentage of ripe fruits before harvest (%)

<table>
<thead>
<tr>
<th>Disease Level</th>
<th>No Leaf Removal</th>
<th>Leaf removal</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>26.7</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>33.3</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>71.4</td>
<td>0</td>
</tr>
</tbody>
</table>

Leaf Removal avoid early ripening before harvest (900 dd)

Green life = zero
Results and Conclusion

Leaf Removal aloud fruits from all levels to exportation

Minimum green life for exportation

No Leaf Removal:
Only level 1 and 2 have acceptable green life for exportation

Necrotic Leaf removal might suppress the effects of Sigatoka Disease, when the chemical control was inadequate
Thank you!