



## Policy Brief to disseminate good cultural practices in Grand-Lahou

<b>Project</b>	<b>IDRC-DFATD 107789 ‘Fighting lethal disease for coconut farmers’.</b>
<b>Policy Brief Title</b>	<b>Establishment of good cultural practices in Grand-Lahou</b>
<b>Location</b>	<b>Grand-Lahou, Côte d’Ivoire</b>
<b>Directed to</b>	<b>Policy makers and stakeholders (Major, Authorities, Farmers, Traders, Processors, NGOs)</b>
<b>Define the context and the issue</b>	<p>Phytoplasmas possess a double life cycle that involves replication in phloem-feeding Hemipteran insects and plant hosts. Phytoplasma insect vectors and alternative host plants play an active role in the development of epidemics. Alternative host plants of phytoplasma-associated diseases have been identified worldwide, and include either cultivated species or weeds. Plant species found within surrounding crop fields have been shown to play a role in spreading phytoplasma diseases, as they may act as reservoirs for the phytoplasmas or their insect vectors. This makes the design and implementation of effective disease control strategies very difficult. The knowledge of both insect vectors and alternative hosts contribute to develop a more effective control strategy for phytoplasma diseases such as CILY in Grand-Lahou.</p>
<b>Findings</b>	<p>Plant species from the families Poaceae (<i>Paspalum vaginatum</i>, <i>Pennisetum pedicellatum</i>), Verbenaceae (<i>Stachytarpheta indica</i>), Plantaginaceae (<i>Scoparia dulcis</i>), Phyllanthaceae (<i>Phyllanthus muellerianus</i>) and Cyperaceae (<i>Diplacrum capitatum</i>) have been identified as alternative hosts for the CILY phytoplasma from the villages of Braffedon, Palindustrie V1, Badadon, Yaokro, and Adjadon. Insect specimens of the Hemiptera order, subfamily Typhlocybinae, <i>Nedotepa curta</i> have been identified as the potential vectors of the CILY phytoplasma. Both may have epidemiological implications for CILY spread in coconut farms in Grand-Lahou.</p>
<b>Implications</b>	<p>If not actions are taken in regards to the removal of those weeds that act as reservoirs for the CILY phytoplasma and to control populations of the potential vector <i>Nedotepa curta</i>, CILY will wipe out the coconut groves of Grand-Lahou more likely in the next five years, and that would be a niche for the emergence of phytoplasma diseases in other weeds and crops. Field schools and plant clinics should train the farmers and extensionists on how to recognize the weeds that are hosts of the CILY phytoplasma and the different stages of the <i>potential vector Nedotepa curta</i>. Training includes the best procedure to remove weeds from the farm, and recognition of the vector stages and peak season. Farmers should adopt and disseminate the new cultural practices to control CILY, described in the factsheets, and flyers generated by the project and distributed through the field schools and plant clinics. It is crucial that policy makers and stakeholders, including Women Groups support the farmers in Grand-Lahou to adopt and implement the present policy brief.</p>

**Limitations and further research**

Monitoring of the CILY-affected farms is required to spot and identify new weeds or Hemiptera species that may be new alternative hosts or potential insect vectors. Transmission trials will be followed after the project ends as part of the post project plan to prove the transmission capacity of *Nedotepa curta*, as well as to determine its biology towards a more effective vector control strategy.

**Declaration**

CNRA and UNA confirm that the policy brief has been issued in accordance with the budget and research proposal under the IDRC-DFATD research project 107789.

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**Signature**

**Date**

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