Food and Agriculture Organization of the United Nations

Routine tree management practices: pruning and cutting tree tops, Grenada

Source	FAO Strategic Objective 5 – Resilience, in FAO
Keywords	Natural disasters, Soil conservation, hurricanes, Caribbean, Grenada, risk management, Resistance to wind, Pruning
Country of first practice	Grenada
ID and publishing year	4653 and 2008
Sustainable Development Goals	Industry, innovation and infrastructure, climate action, and life on land

Summary

The routine tree management practices, such as pruning and cutting tree tops have been identified as among the most cost effective, easy to replicate and highly sustainable agricultural risk reduction technologies currently implemented. These practices comprise of cutting tree tops and shrubs strengthens trees so that they better withstand hurricanes and strong winds. Additionally, this prevents branches from falling on and damaging underlying crops. This practice also allows sun light to penetrate through the tree branches, thus benefiting crops. In addition, the cut vegetation, if left on the ground, may contribute to soil fertilization.

Description

The devastations caused by the extremely severe hurricane seasons in Grenada in the past few years highlighted the great vulnerability of its agricultural sector. The application of this technology helps in reducing damages of trees from hurricanes and strong winds during hazardous events.

1. Implementation of the technology

Pruning should be undertaken once a year before blossoming period (October to November).

1.1 Pruning steps

- Identify the terminal shoot in the targeted tree.
- Use a saw or other appropriate tools to cut the terminal shoot at the desired height and working from the top centre of the plant. Maintain the height of the tree at about 15 to 25 feet (4.5 m to 7.5 m) by routinely topping the terminal shoot so as to allow auxiliary branches to expand. This increases the amount of sunlight filtering through the tree, which is beneficial to crops.
- Identify unwanted branches (e.g. dry) and suckers and balance the tree by carefully removing unwanted branches on both sides. This is critical for improving the resilience of the tree to hurricanes and strong winds. Branches must be cut as close to the trunk as possible. This encourages quick healing of wounds and helps to prevent the entry of insects (e.g. termites) and pathogenic organisms.
- Apply a small amount of tar on the cut surface and cover with plastic or other water-resistant container to prevent rotting and entry of pests and pathogenic organisms.

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1.2 Tools

The tools needed are a pruning knife, a saw, tar, a container and plastic sheets.

Figure 1. Before tree pruning

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For the tree pruning, it is recommended to request technical support from the Extension Division of the Ministry of Agriculture. The Ministry of Agriculture working in collaboration with a number of strategic partners, including The Caribbean Agricultural Research and Development Institute (CARDI) is training farmers in best pruning practices for decades. The adoption of the practice is fairly widespread at this time.

Figure 2. After tree pruning

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2. Validation of the practice

This practice was applied by farmers in Grenada.

3. Further reading

- Grenada Ministry of Agriculture.2004. Assessment of damages resulting from Hurricane Ivan.
- OECS. 2004. Grenada: Macro-socio-economic assessment of the damages caused by Hurricane Ivan. URL
- Roberts, Dianne A., Shears, Randolph. 2007. Assistance to Improve Local Agricultural Emergency Preparedness in Caribbean Countries Highly Prone to Hydro-Meteorological Disasters – Grenada Case Study (TCP/RLA/3101), Interim Findings and Recommendations, January 2007.

3.1 For more information, please contact

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4. Agro-ecological zones

- Tropics, warm

5. Objectives fulfilled by the project

5.1 Pro-poor technology

This technology helps in reducing damages of trees during hazardous events, improving the livelihoods of poor communities.

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