

Crop Farmers'



Disaster Handbook

Bearing in mind that Jamaica is sensitively located in a disaster region, yearly affected by hurricanes, flooding and landslides, farmers must be aware of how to minimize the effects of natural catastrophes. Farming practices are also susceptible to man-made threats such as fires and power outages; hence prevention measures are needed.

Farmers' prevention methods will vary from each other; yet, disaster preparedness is a necessary activity for all.

PRE-PLANNING

One of the major and most overlooked tasks of disaster preparedness is planning. Pre-planning will ensure that daily practices reduce the possible impacts to be faced and helps us to get back to business quickly after a disaster. Below are some considerations.

- Develop a cropping/rearing calendar that includes timing of hurricane preparedness tasks to be completed by the end of May.
- Establish gardens and farm buildings away from flood-prone areas, where possible.
- Join your local farmers' group and establish a revolving credit fund to assist with hurricane damage recovery.
- Identify dump sites in centralized locations, for disposal of waste which cannot be composted, used for soil conservation, etc.
- Before a hurricane, identify vehicles and operators required to carry out recovery efforts in specified areas.
- Make a list of all equipment, tools, business records, stationery etc. and assign the responsibility for the safety of these valuables to one person.
- Store business records in a safe, dry area.
- Store tools, equipment, pesticides, plastic bags, etc. in a safe, dry area preferably on pallets or on a raised area.
- Regularly prune shade trees to prevent heavy overhanging branches from breaking and falling on crops and livestock.
- Always ensure that you have more than one week's supply of feed, water, medication, pesticides, fertilizer etc. in storage.

Protect farm buildings

- Check status of roofs and strengthen where possible by installing storm straps/ nailing down zinc sheets/ replacing damaged zinc sheets, roof tiles etc.
- Tar roofs to prevent leakage.
- Secure windows and doors.
- Cut/remove overhanging limbs that may fall on buildings.
- Cut diversion trenches to take water quickly and safely from building.
- Palletize fertilizer and cover with tarpaulin.
- Store insecticides and fungicides on raised areas, for example cupboards or tables to prevent them from being washed away in the event of flooding.
- Disconnect electricity supply to the buildings.



Plant for disasters

Here are some suggestions for planting:

- On slopes, establish crop rows and artificial/vegetative barriers across contours including appropriate, deep-rooting trees.
- Establish rows of vetiver (Khus Khus / Razor) grass barriers on areas that are prone to slippage. The grass roots will help to hold the soil together and prevent erosion of the top soil.
- Plant suitable trees to stabilize river banks.
- Establish windbreaks, using recommended plants and plant spacing/density.
- Practise protected horticulture (e.g. greenhouses) where appropriate.
- Construct and maintain drains, check dams, diversion ditches as necessary.

At release of warning

Farmers should attempt to finish the prescribed tasks listed below before the hurricane begins. Farmers place themselves at risk of injury or death by working during a storm or flood. The likelihood of being electrocuted, hit by lightning or washed away by flood currents becomes greater.

- Remove cladding, lay plants flat, and cover with plastic held down by twine tied across house posts.
- Reap mature fruits and store in a suitable area for use after the hurricane.
- Remove irrigation lines and equipment, and store in an area secure from damage.
- Clear clogged drains and cut diversion trenches to lead water safely away from the farm.
- Protect road-ways and foot paths by constructing cross drains to take water safely off the roads and into a paved or grassed waterway.
- Construct dams (using tyres, logs, stones) across gullies to prevent or minimize gully erosion.
- Cut crops and tree to appropriate heights to reduce wind damage
- Trim coffee trees in windswept areas, partially to 34 inches or totally to 12-15 inches from the ground.
- Keep fruit trees no more than 15 feet tall.
- Stockpile pruned branches for compost, coal and/or construction after the event.
- Clean up loose objects (branches, timber, zinc sheets, empty herbicide containers, fertilizer bags, cartons, plastics etc) that may be washed into and clog drains.
- Secure loose objects that may become wind-borne posing danger to life and property.
- Switch off electrical power to pump houses or other remote areas.

Protecting plant nurseries

- If possible, remove shade cloth (saron) and store in a safe place. If not possible, secure it firmly to the uprights/posts which support it.
- If the nursery is in a low-lying area, remove and store the essential parts of the irrigation system, in particular the pump, in a waterproof area.
- Open drains to allow the easy passage of water.
- Cut diversion trenches around beds to prevent flooding.
- If possible, remove mixed potting soil, topsoil, and manure to an indoor location to reduce the possibility of them being washed away.



Recovery measures

Following advisories are given to enable a fast return to farming activities after the hurricane or flood.

- Inspect recently planted fields for possible need for supplying (or even replanting).
- Begin cleanup activities as soon as possible.
- As soon as practicable, address weed control. (Farms tend to get overrun by weeds following a hurricane).
- Prop-up trees with 14 days of storm; cover roots with top soil and mulch.
- Assess property for damage to buildings, crops, equipment etc.
- Inspect chemical stores; clean-up any chemical spillage to avoid poisoning and restrict contamination of water sources.
- Check your surroundings for danger from fallen electrical wires or trees, pesticide spills, dead animals, etc.
- Recently planted nurseries may be given a supplementary fertilizer dressing to replace nutrients washed away during the storm.
- Sugar cane farmers should not re-fertilize fields after hurricanes. (This tends to result in poor juice quality and low cane price).
- Establish protected seedling production centres for early replanting after a hurricane.
- Call on neighbours and colleagues to ascertain their well-being for later assistance.
- Effect repairs to store houses and other structures, if necessary.
- Unclog drains, sink holes and canals to free up the passage of water.
- Repair drain, and canal infrastructure, electrical power lines (using competent electrician), pumping stations if necessary.
- Call your RADA extension officer, Parish office, farm group leadership, agriculture emergency operations centre (EOC) and report the damage caused by the hurricane.

