



Carcass disposal procedures for small-holder farmers



Carcass composting for mass culling of birds – Source: FAO

Where significant livestock losses incurred post-TC Yasa, the Ministry of Agriculture deployed its teams on the ground to conduct massive burial of carcasses in Vanua Levu.

But due to resource constraints the Ministry of Agriculture was unable to attend to all individual farmers and as such, request farmers to please dispose of their carcasses responsibly as these pose a significant health risk to the surrounding communities when left exposed.

Farmers were urged to minimize direct contact with the carcass and if there was a need to - wear personal protective clothing. Immediately, wash hands with clean water and disinfectant in an event where you have handled a carcass.

The Ministry of Agriculture pleads with livestock farmers to take responsibility of their dead stock. Depending on farmers' resource

capabilities, they could either burn or bury (sufficient depth of at least one metre of soil on top of the carcass) their dead stock. The site of burial must be well away from waterways.

The Food and Agriculture Organisation has provided guidance on simple procedures that can be practiced to properly dispose of individual animal carcasses.

Above-ground burial

Advantage: safe, on-farm, readily available, fast to implement, high public acceptance, efficient.

Disadvantage: scavengers may unearth the carcasses.

Time/cost: fast, low cost.

Consideration: Proper top coverage to prevent access of scavenging mongoose and stray dogs.

Procedure: Above-ground burial involves the disposal of animal carcasses within a shallow trench to a

depth of 60 cm excavated on the farm or field. The base is then lined with grass straw or wood chips (carbonaceous material) of at least 30cm thick at the bottom before placing the animal carcass on top. Excavated soils are placed back in the trench, forming a mound on which the vegetative cap is established. Resilient and on-season plants should be selected to be planted to form a natural cover over the mound. Finally, the perimeter of the mound is trenched to prevent the intrusion of surface water into the system.

The trenches are designed to increase microbial activity and minimize the potential for groundwater contamination from carcass leachate. Decomposition will take between 9 and 12 months. Once the carcasses have decomposed, the disposal site can be leveled and returned to its previous use.

Carcass composting

Advantage: safe, sustainable, on-farm, easy to implement.

Disadvantage: time to complete and manage

Time/cost: slow, volume of wood chip needed may be expensive.

Consideration: requires knowledgeable operator to ensure proper setting up and management interventions to prevent access of scavenging mongoose and stray dogs.

Procedure: Carcass composting is a process that involves constructing a porous base layer of carbon material (example wood chips), mixing or layering the animal carcass with carbon material for the core of the windrow, and capping the mixture with a blanket of carbon material to promote decomposition of carcasses at elevated temperatures.

Carcass composting consists of two phases:

The active phase is characterized by aerobic reactions at relatively high temperatures resulting in a large reduction in the volume of biodegradable solids. This phase has the potential to produce significant odors which are controlled by the carbon cap (thick covering of wood chips). Core pile temperature should rise to 57-60°C within 15 days and then be maintained for several days. Intervention, such as turning the pile, may be required to maintain the desired temperature.

For intact large-animal carcasses, turning is not recommended, and elevated-temperature with aerobic conditions should be maintained for weeks. Larger animals should not be turned before 30 days.

In the curing phase, which occurs after the active phase, aeration is not as critical. During this period, a series of slow-rate reactions occur at temperatures below 41°C. At the end of the curing phase, internal temperatures within the compost pile range from 25-30°C. The carcass density is reduced by 25 percent and the finished product appears dark brown to black and is free of unpleasant odors. For composting poultry carcasses, turning the pile can speed decomposition. However, if the pile is constructed correctly, turning is not necessary and is not recommended within the first 14 days for infected carcasses.

Burning

Advantage: On-farm, inactivates pathogens, reduces volume.

Disadvantage: public opposition, need to control smoke and fire, volume of

input for wood and fuel.

Time/cost: fast, fuel cost may be expensive.

Considerations: risk of creating wildfires, air quality, smell.

Procedure: Open burning is a process which involves constructing a bed of combustible materials such as wooden timbers, placing the carcasses on the bed, adding more combustible material over the carcasses, and igniting the pile. There is no containment of materials in this process. Care should be taken to monitor and regulate the fire that are unassisted by incineration equipment. It is easy for the fuel and smoke to be uncontrolled. Carcasses can be burned in open fields, on combustible heaps called pyres, or with other burning techniques.

Because of the significant air emissions and fire safety concerns, consult with your locality Health Inspectors prior to performing open-burning.

Composting, above-ground burial and burning are suitable options for carcass management when there is limited access to engineered landfills, rendering plants or controlled incinerators and when small numbers of animals are needed to be dealt with. In general, composting and above-ground burial, can be easily done at the field than deep burial and much safer to manage than burning.

For preparation of deep burial pits for management of mass number of livestock carcasses (above 10 heads), please contact your nearest Agriculture office.

Appropriate personal protective equipment will be necessary for individuals involved in handling and management of animal carcasses.

Sugarcane farmers in Vanua Levu provided rice farming option



Minister for Agriculture, Waterways and Environment Hon. Dr Mahendra Reddy with government officials and senior management of FSC.

Owners of sugarcane farms in the Northern Division affected by salt water intrusion as a result of the storm surge that occurred during TC Yasa have been offered an alternative option of rice planting for the next 4 months to give time for the farm to recover from salt water intrusion.

The suggestion was offered by Minister for Agriculture, Waterways and Environment, the Hon. Dr Mahendra Reddy during a recent meeting with senior management of Fiji Sugar Corporation.

The meeting discussed strategies to assist farmers affected by the salt water intrusion in the low lying coastal areas.

The Hon. Dr Reddy said most of the farms in low lying areas of Nagigi, Korovatu, Vunika, Wailevu and Tiri settlement of Tabucola had been

affected.

"King tide could be as high as 1.8m above mean sea level. The seawall constructed to prevent flooding in farming communities is at least 2meters high from mean sea level. The intrusion of seawater during TC Yasa was due to a storm surge that rose to around 3meters above mean sea level," he explained.

"Seawalls are designed to prevent salt water intrusion from normal tides and King tides. However, in this case storm surges occurred which are a result of wind and atmospheric changes usually associated with storms that swept salt water into these farming communities."

The Minister noted it would take time for the salt water to wash out and suggested to sugarcane farmers in the affected areas to take up the offer from

the Ministry of Agriculture and Fiji Rice Ltd to plant the salt-tolerant Deepak variety of rice.

"The Ministry of Agriculture will provide subsidies on land preparation costs by 80% and will provide free rice seeds," the Hon. Dr Reddy said.

Further, he added that the Deepak variety would take four months to harvest, by which time the field would be ready for cane cultivation.

He said FSC would mobilize its field officers to inform farmers of this support and ensure that those willing to plant rice would be supported immediately.

Minister Reddy thanked the FSC Mill Manager and Head of Extension for their willingness to support this project which gave a window of time for cane farmers to regroup and improve their farmland.

2021 Dog License now available



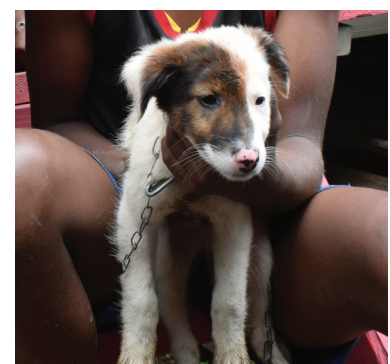
Society for the Prevention of Cruelty to Animals (SPCA) for the Suva area. A dog license is valid until 31st December 2021 and is not transferrable.

Dog owners are required to provide details such as the name, address and description of the dog and the number of dogs owned. Any person who has a dog license must produce it on demand to the Inspector or Police Officer.

Collars and Registration labels to be worn by licensed dogs

Dog license owners shall at his or her own expense be responsible for affixing a collar with registration label at all times. The owner of every dog shall be liable in damages for any unprovoked injury done by his or her dog.

The Ministry also advises the dog owners to have the dogs desexed and be responsible as well as take good care of their dogs. Seek veterinary advice if your dog is sick.



The Ministry of Agriculture advises the dog owners that 2021 dog licenses are now available from all Ministry of Agriculture stations around Fiji.

It is by law that all dog owners must license their dogs. The dog license fee is \$13.20 per year paid annually. Any owner who keeps a dog more than 6 months old without holding a license in respect of such dog shall be guilty of an offence and be liable for conviction or fine.

The dog license can be purchased from Agriculture Offices and from the