



# Information Sheet

## 4. HUSBANDRY

### 4.1 Management of fire cane

Accidental and runaway fires are common occurrences that create problems when the cane is unmillable, or the burnt area is too large to cut and mill before deterioration sets in.

#### HANDLING CANE TOO SHORT FOR MILLING

If the cane is very short and there is no visible stick, the cane should be left to tiller from the base of the stool. However, if the cane has already developed some stick but is too short to send to the mill, it should be cut back by hand and the regrowth treated as a normal ratoon. During winter, where the cane was moisture stressed before the fire, delay cutting back until reasonable spring rains have fallen, so that the residual moisture in the stalks and stools will be conserved. The exception would be where the cane has been extensively damaged by eldana borer, in which case it should be cut back and the residue reburnt.

Where a cool burn occurs, and provided the meristem (growing point) has not been destroyed, the cane can recover and resume normal growth, as with frosted cane. Even under conditions of a cool burn and where the meristem is still alive, there could be burst cells in the cane stalk or the buds, resulting in secondary infection. This leads to further cane deterioration and poor cane quality.

About one week after the fire, a sample of stalks should be sliced open longitudinally to determine whether the meristems are still alive.

#### HANDLING CANE WITH SUFFICIENT STALK FOR MILLING

This cane should be harvested and milled with minimum delay. Extra allocation can be obtained from the Mill Group Board where the burnt cane will require more than three days to harvest and deliver to the mill.

Burnt cane with millable stick that is not harvested, and is left standing until the following season will result in poor tillering of the next crop. That crop will also have old dead sticks which will have a negative impact on cane quality.

#### Deterioration

Depending on climatic conditions, burnt cane that is cut immediately can deteriorate quite rapidly, losing an average

of 1-2% recoverable sugar per day. However, burnt cane that is left standing deteriorates at an even faster rate, so it is important to cut the cane as soon as possible, even if there will be a delay in transporting it to the mill.

The differences in rates of deterioration between varieties are comparatively small, therefore the most mature cane should be harvested first, followed by younger cane.

#### POST-FIRE MANAGEMENT

##### Conservation

Runaway fires often spread over entire hillsides and expose the land to potential erosion, which can be serious if heavy rains follow soon after. It is essential to leave the tops and residues scattered on the soil surface to protect the soil and reduce run-off velocity.



## Nutrition

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A hot fire can partially destroy recently applied nitrogen fertiliser that has not had time to move into the soil following rain. Where nitrogen top-dressing was applied up to three months before the fire and a young ratoon is being left to recover, take leaf samples when the cane is again growing normally, to establish whether a supplementary dressing will be necessary.

Normally, any phosphorous or potassium fertiliser that has been applied will not be lost during a fire. However, as with nitrogen, if the cane has been growing for some time after the application of fertiliser the crop will have taken up a portion of these nutrients and this portion will be lost when the crop is cut back. Lime that has been applied to the soil surface will not be adversely affected.

If the cane has had to be cut back, it must be assumed that no residual fertiliser remains, and the new growth should be fertilised as for normal ratoons.

## Weed control

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***In winter***, remove perennial weeds by hand and use short term pre-emergence herbicides, or, if conditions are suitable, use one of the ultra long term herbicides.

***After spring rains and in summer***, hand weed followed by long term pre or early post-emergence herbicides.

## Handling short cane for milling

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This is described in Information Sheet 4.5, Management of cane affected by drought.

***NB: Burnt cane must not be used as seedcane.***

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