FIRE TOLERANCE

INTRODUCTION

Vetiver grass is well-known for its fire tolerance. It is almost impossible to destroy a mature vetiver plant by fire.

Field experience showed that it is not burnt readily even under very dry and windy conditions. This is due mainly to:

- the growing points are underground
- They are tightly packed and well protected by the thick crown
- The shoots are relatively high in silica content

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Paul Truong, TVN.

Regrowth following a very severe burning when plant tops were not removed after slashing



Regrowth continued with new shoots replacing old dead ones in the centre



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Two examples

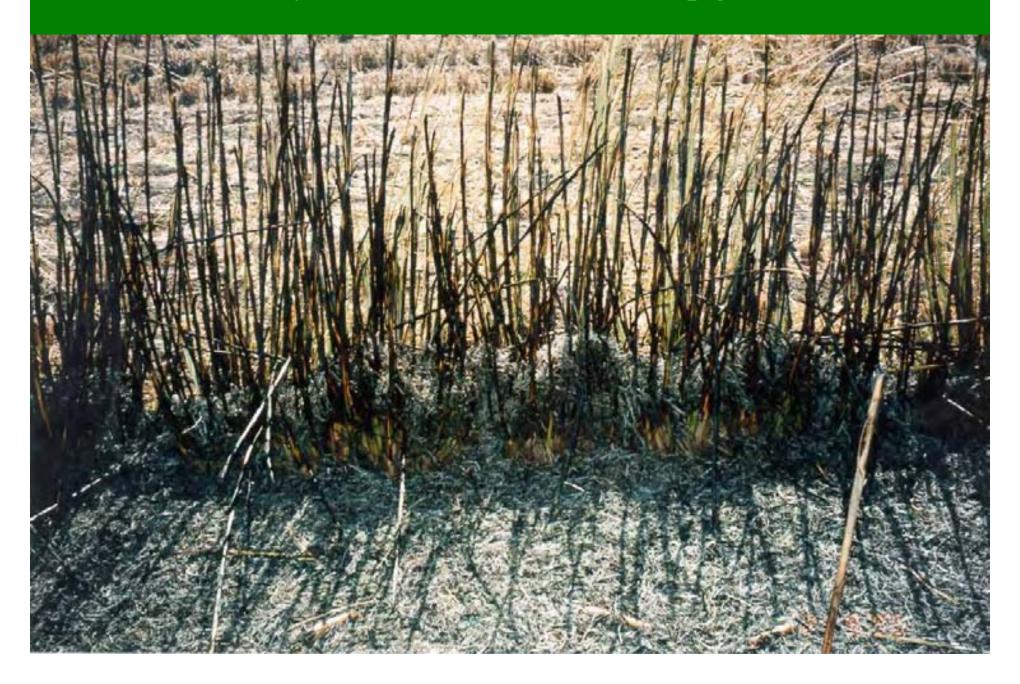
1- Burning of hedgerows to control weeds and vermin

2- Wild fire along a railway

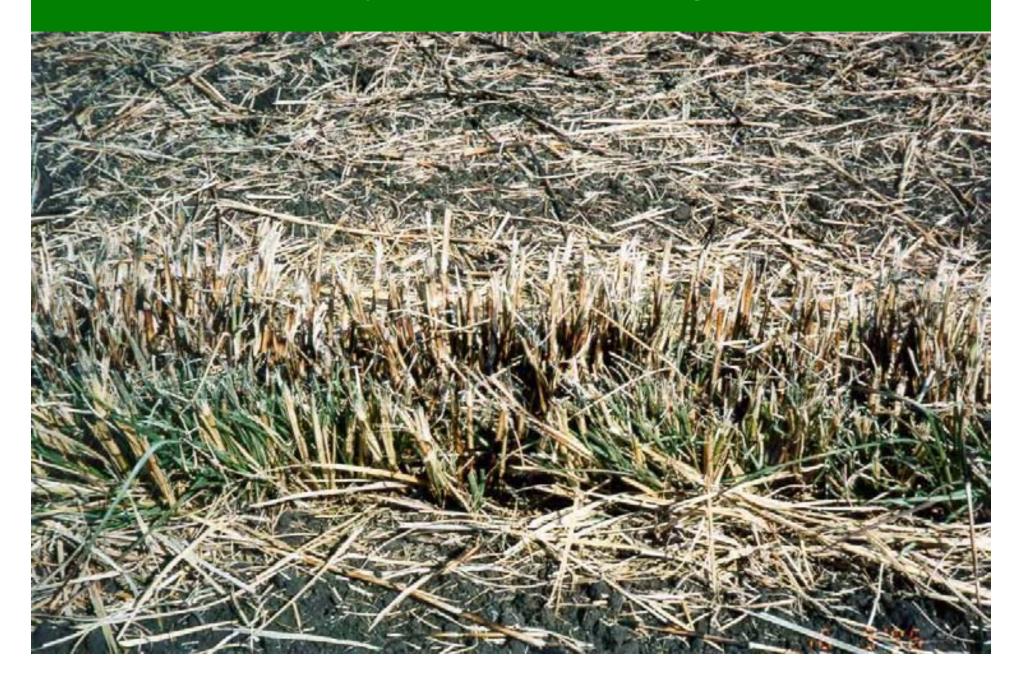
Even under dry and windy conditions burning is difficult and slow



Very hot fire burnt most of its top growth



Recovery 2 months after burning



Complete recovery seven months after burning with adequate soil moisture and warm weather



A WILDFIRE IN AUSTRALIA

- Bushfire is a common hazard in eastern Australia as in western USA in summer
- Every year thousand of hectares of forest as well as suburban land are severely burnt.
- Due to the current drought the fire season started in October instead of the usual time in December
- The following slides show the devastation of the fire on vetiver planting and how quickly it recovers with only residual soil moisture.

A typical mature vetiver row along the Toowoomba railway. Vetiver was used extensively to stabilize this 32km mountain section



Severely burnt stools, note the soil trapped above the old hedge





No fear !!
Regrowth
started from
below ground
buds

Regrowth stated very soon after fire



25 days after fire



8 weeks after fire



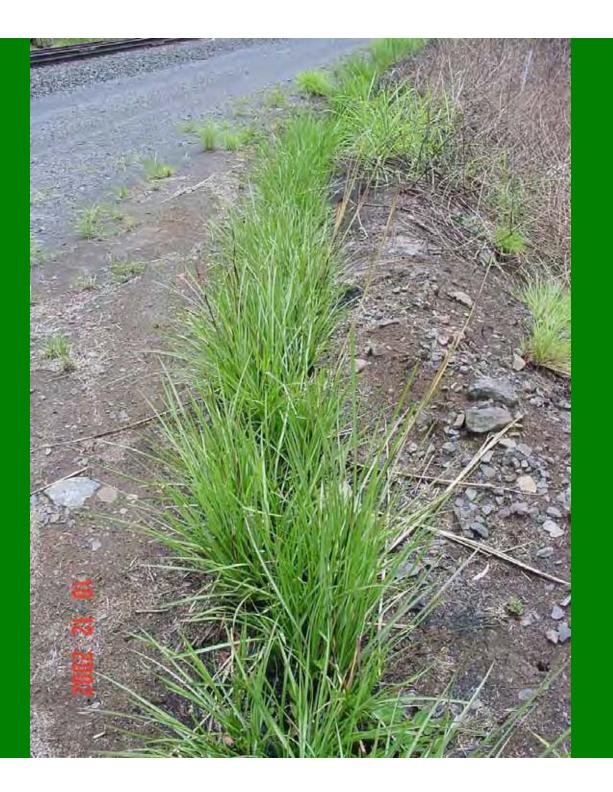




8 weeks after fire



On old hedges, the centre was burnt out and regrowth started along the edges, resulting in double rows!!



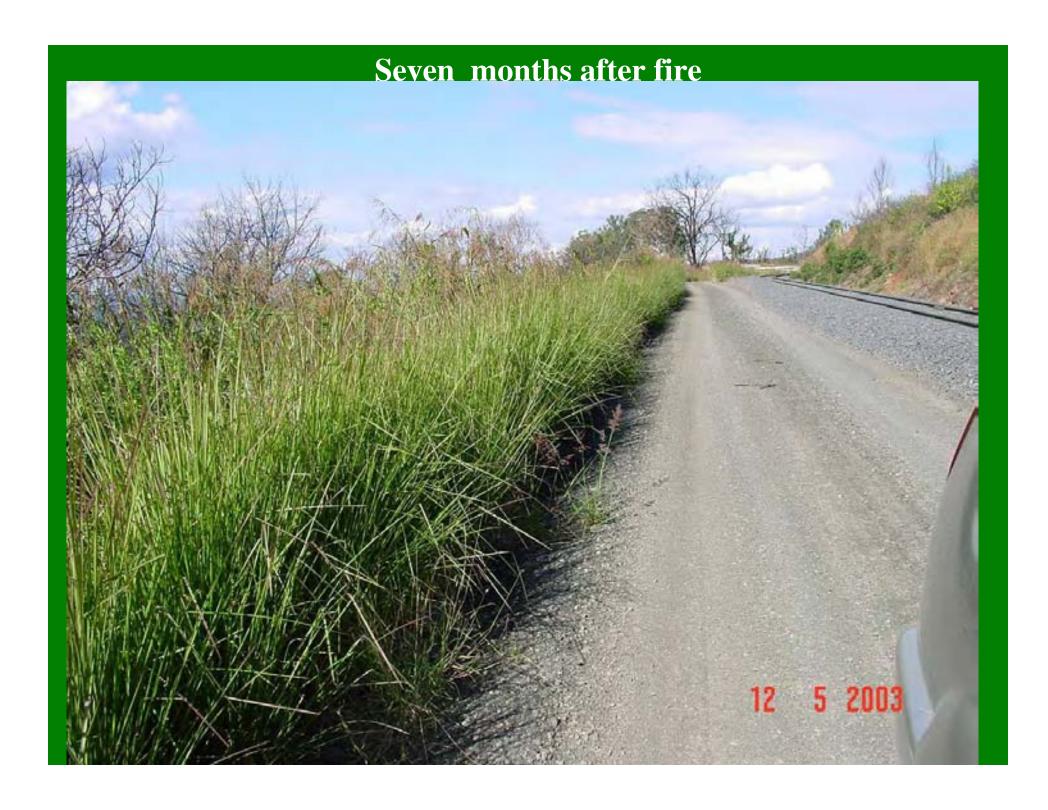
8 weeks after fire

Three months after fire



Three months after fire





Seven months after fire



Seven months after fire

