

# 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





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







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

# **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**



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# **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**

08  
11  
2008



# Regrowth stated very soon after fire





25 days after fire





8 weeks after fire



10 12 2002









10 17 2002

**8 weeks after  
fire**





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





10 12 2002

8 weeks after  
fire



## Three months after fire



22 1 2003



## Three months after fire





Seven months after fire



12 5 2003



# Seven months after fire





## Seven months after fire



12 5 2003