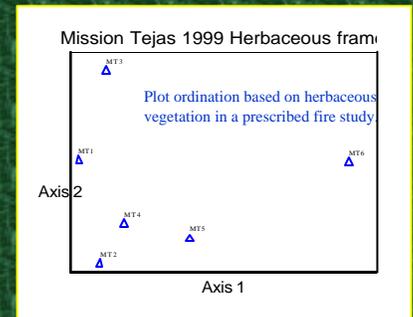


# Fire and Herbicide Combinations to Reduce the Threat of High Intensity/Severity Fires: Preliminary Report

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The Florida fire seasons of 1998-2000 demonstrated that commonly used hazard reduction techniques for southern rough all have shortcomings. Southern rough is dominated by saw palmetto (*Serenoa repens* Bartr.) and gallberry (*Ilex glabra* (L.) Gray), with wax myrtle (*Myrica cerifera* L.), and ericaceous shrubs such as tree sparkleberry (*Vaccinium arboreum* Marsh.) and locally important huckleberries (*Lyonia* spp.). Because saw palmetto is very resistant to herbicides, forest industry has dealt with it through intensive mechanical site preparation. This study will be conducted on North Florida industrial plantation forests.



The study will add several fire treatments to the current industrial tools of fertilization at crown closure followed by herbicide. It will determine the most effective means of achieving both immediate and long-term reduction of understory fuel stature and duff layer development. Because fire volatilizes nitrogen, any loss must be negligible before industry will use fire, regardless of other benefits.

## Objectives

To determine the efficacy of prescribed fire and herbicide combinations to immediately reduce understory fuel stature, and to determine the longevity of the reduction.

To examine the possibility of applying fire prior to fertilization to consume the developing duff layer without negative effects on the efficacy of the fertilizer treatment.

To quantify the effects of prescribed fire on N volatilization when burns are conducted two years after fertilizer application.

