

1  **Fire History & Science**

**Page 1**

**Alabama Prescribed Burning Guide**

2  **"The fire is Tess, the rain is Jo, and they call the wind Moriah".**

- They have existed since the beginning of time.

3  **Arrival of humans**

4  **The plants and animals that existed at the time of human arrival in the Southeastern part of the North American continent were arguably adapted to fire on a relatively frequent interval.**

5  **Human uses**

- Corridors
- Yards
- Land clearing

6  **Modern day uses**

**Control is an illusion**

Forestry

Wildlife

Range

Eco-restoration

Fuels management

7  **Stephen Pyne's book *Fire in America : A Cultural History of Wildland and Rural Fire (Weyerhaeuser Environmental Book)***

8  **If you don't know the science**

**You are flying blind**

9  **Fire Science**

**Page 2**

- Chemical reaction
- Conflagration
- Combustion
- Oxidation
- Fire burns up ?

10  **Fire Triangle**

- Page 2.1

11

12  **Fire Tetrahedron**

13

14  **Energy transmission**

**Page 2**

- Conduction
- Convection
- Radiation

15  **Conduction**

16  **Convection**

17  **Radiation**

18

19  **Flaming stages**

	<b>Page 3</b>
	• Pre-heat
	• Pre-ignition
	• Flaming
	• Transition
	• Smoldering
	• Glowing
20	<input type="checkbox"/> <b>Pre-heat</b>
21	<input type="checkbox"/> <b>Pre-ignition</b>
22	<input type="checkbox"/> <b>Flaming</b>
23	<input type="checkbox"/> <b>Transition</b>
24	<input type="checkbox"/> <b>Smoldering</b>
25	<input type="checkbox"/> <b>Glowing</b>
26	<input type="checkbox"/> <b>Ignition temperature</b>
	<b>Page 3</b>
	• 400 – 800 degree Fahrenheit
	• To
	• 500 -750 degrees Fahrenheit
27	<input type="checkbox"/> <b>Flame front video</b> <b>from Northwest Territory, Canada</b>
28	<input type="checkbox"/> <b>Flame Length</b>
	<b>Page 4</b>
29	<input type="checkbox"/>
30	<input type="checkbox"/> <b>Dwell Time</b>
	<b>Page 5</b>
	• The amount of time it takes the flame front to pass a point
	• How long the temperature remains elevated around growing tissue
31	<input type="checkbox"/> <b>Questions – Comments ?</b>