

8. *Thinking like a Longleaf Pine*

What? Can trees think???

Of course not, but you can. If you were a longleaf pine, you would live with the adaptations your species has developed over millions of years to thrive where the soil is poor and fires are frequent. We refer to the *growth strategy* of species, and the word strategy implies someone's thinking. Let's pretend it's the tree that has "figured out" this strategy.

My childhood, the first 3 to 7 or more years of my life as a Longleaf Pine, is spent in the *grass stage*, during which I look like a clump of bright green grass – the same green of the adult pines around me. While in this stage of growth, I am quietly growing underground, putting down an extensive root system rich in plant carbohydrates, storing energy for – something. What? I don't know yet, but when it happens, I will know.

What is happening? It's really, really hot here all of a sudden! Boy, I'm glad I'm so short! Down here, most of that heat goes over my head. Ah, finally, a nice cooling rain. Hey, I'm getting a new shot of nutrients from that gray ash all around me. It's getting washed down to my fat roots by that rain. Wow, I feel like stretching! That sun sure looks great up there – I wonder how long it would take me to get up to it. No more grass stage for me, guys – here I grow!

My youth, the next 3 – 5 years or so, are safe for me to be at the height of that hot fire that went over my head in my grass stage because the bushes and grasses all around me burned up and it takes a while to build the fuel load up again. So I'm using my stored energy to get as tall as I can before the next fire. First, it goes into a thick, juicy white candle, my terminal bud. If it rains a lot this summer, my candle might grow four or five feet long. Next year, same time, I'll put up a new candle on top and a couple of side ones, to boot. Next year, another big candle on top again and a couple of side ones again. My new needles come out of those candles each year. The most important candle is always the top one, because I have to get it up as high as I can before another big fire. If I lose the side ones, well, that's part of growing up. I won't need them when I'm bigger.

I'm also putting new layers of bark on over my *cambium* so that even if a layer or two burns off, I still have spare ones underneath to protect that tender, green part of my skin. I have to hope we don't have a long dry spell that would dry up most of my juicy sap and make me vulnerable to fire. Pine borers, little beetles, might get under my bark and suck me dead. But if that happens, I'll be food for them and they'll be food for the Red-Bellied Woodpeckers that might make nests in my knotholes and then maybe bluebirds might take over after the woodpeckers grow up and I won't have lived in vain. That's all I ask!

If I do get to grow up to be really old and thick, maybe some endangered Red-Cockaded Woodpeckers will come live in my woody center. They'll keep the sap flowing out from around their nest hole so I'll protect them from snakes. Those snakes can't stand my sap! (Suckers!) By that time, I will have reached my full height and "topped out," branching into a flat top. Then all I have to worry about is lightning! Well, and people coming to cut me down. My wood is very close-grained and hard because I grow very slowly, after my adolescent growth spurt. Lots of settlers' homes and other buildings were made of longleaf pine. Most of them burned up long ago. I wonder what will happen to me?