



## Massive Challenges for Biomass

By Barbara Coyner

Years ago, the magazine *Mother Earth News* ran a regular column called “Them That’s Doing,” presenting real world scenarios. In today’s woody biomass movement, Dwayne Walker and Rob Davis stand out as “them that’s doing” sort of guys. They’ve moved past the talking points to create actual track records with woody biomass. The two men were key presenters at the Small Log Conference this past March in Coeur d’Alene.

### It’s All in the Name

Walker chose a good name for his company when he dubbed the enterprise Future Forests LLC, because the company has shown a model for future success in handling woody biomass. The story has been unfolding since Future Forests took on the White Mountain Stewardship Contract five years ago in Arizona.

Things kicked into gear after the horrendous wildfires of 2002, and Walker’s company has since successfully navigated the collaboration process and worked with the Forest Service to process small logs and biomass. Without the collaborative efforts, Walker said the residents around the Apache-Sitgreaves National Forests would be viewing ugly wildfire scars forever.

### Handling “Forest Junk”

Walker and pellet manufacturer Rob Davis have both learned that making pellets and other products from forest junk wood is no easy sell. Right away, Walker had to adapt his equipment stable, sometimes using a hydroax hot saw feller buncher or a Timbco feller buncher. The company also uses a Morbark chain flail debarker and chipper for much of the job.

The company was guaranteed a 5,000-acre treatment area each year, and the crew has done it all, from whole tree chipping in the woods, to processing “small crappy trees.” Chips are shot straight into a van with a walking floor.

Walker went to a lot of trouble to guarantee a job for himself, making sure to cross his “T”s and dot his “I”s when working with fickle government processes. He says, “No guaranteed supply, no industry investment.” But the 10-year contract provides a good pilot project, one worth trying out somewhere else. So far, the project has thinned hundreds of overstocked acres, supplied 244 jobs, and promoted a new pellet industry.

### The Pellet Learning Curve

Rob Davis, owner of Forest Energy Corporation of Show Low, Arizona, knows the pellet manufacturing details; however, since participating in the stewardship project, he’s taken off his rose-colored glasses about pellets being easy to manufacture and sell.



“I thought this was really the industry,” he says. “There’s plenty of supply, and it’s an environmentally sound idea. But we discovered that it takes time to learn to make pellets.”

The 1.5 million tons of biomass per year has been fairly consistent, as per contract, but the recipe for making pellets is inconsistent. Getting the hang of making a pellet that burns with the same intensity every time is part science and part art, as anyone in the industry will tell you. Because sawmills have largely left Arizona, manufacturing pellets from varying biomass instead of sawdust is standard. But using slash and tops can make a lower quality product with more ash content, according to Davis, so that’s a constant challenge.

### **Promoting Pellets**

Then there’s the challenge of markets. Davis concedes that, right now, there is far more product in North America than there is demand. Pellet heat and thermal energy are slowly getting the green light in the U.S. and Canada, but for now, much of the U.S. pellet supply ships to Europe, where the new carbon tax has made thermal heat more attractive.

Ironically, Davis and Walker find themselves on a little side mission of promoting pellets and thermal energy right in their own backyard. They figure it’s a more savvy approach to use the local product rather than import power sources from somewhere else. So far, the local Forest Service office and a few other local users have switched from traditional natural gas to pellets because of cost.

Show-and-tell presentations like Walker’s and Davis’s are a valuable tool for the timber industry as it figures out its future with biomass. Mills and loggers have traditionally adapted and readapted, sometimes at huge cost, and it might be time to do that again. Environmentalists now see the need to thin the WUI for wildfire danger, the public wants homegrown alternative energy, and the Forest Service and BLM seem willing to cut red tape.

The current reality is that with housing starts down, mills aren’t producing as much biomass these days, and their residual products are often eagerly fought over. Cogeneration plants need the stuff; paper and pellet manufacturers do too. Then there are the smaller enterprises that make animal bedding, beauty bark, and kitty litter.

If sawmills don’t offer steady supply for now, loggers might find themselves thinning for forest health, then chipping in the woods for possible value-added profit. In that event, Dwayne Walker and Rob Davis might find themselves more in demand as conference speakers.