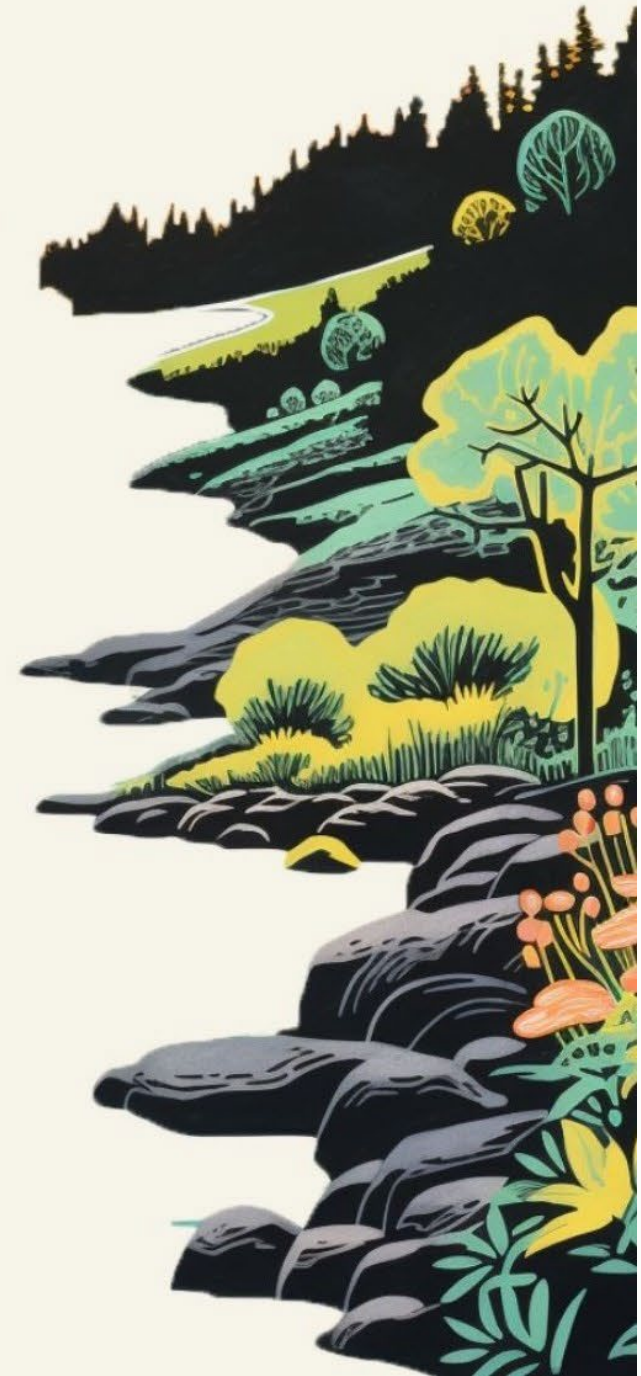




---

**Tyson Nicoll**  
Southwest Biochar Products

---





# Expectations vs. Reality of a Biochar Operation and the Value of Excess Heat

---

Tyson Nicoll: **S**outh**W**est Biochar Products

Email: [tyson@sowbiochar.com](mailto:tyson@sowbiochar.com)

Website: [sowbiochar.com](http://sowbiochar.com)

# Expectations vs. Reality of a Biochar Operation and the Value of Excess Heat



Company Overview Pre-Biochar



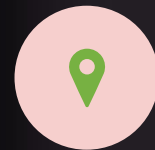
Choosing, Designing, and Implementing a Biochar System



Expectations vs Reality and how we have dealt with the Reality



Added heat source



Where we go from here

# Company Overview

## Pre-Biochar

- Arizona Log & TimberWorks Operation
- Options for Disposing of Biomass



# Choosing, Designing, and Implementing a Biochar System

Cost

Expertise

Utilizing excess heat for a wood kiln

ARTi



## Expectations of Operating a Biochar Plant

Everything would run smoothly

We have the perfect feedstock

The machine will operate automatically

Production targets will be met

We won't be able to keep up with the demand for biochar

# Reality of Operating a Biochar Plant

Nothing runs smoothly

We have an OK feedstock

The machine operates with constant supervision

Production estimates skewed

Will we ever see the biochar sell?

# Nothing Runs Smoothly

Biochar  
Equipment is a  
relatively new  
industry

Electronics are  
good until they  
are not

Every material  
flows differently

High heat is  
hard on  
equipment

Labor  
developments



# We Have an OK Feedstock



# Constant Supervision Needed

---



# Production Estimates Skewed

---

“Size Matters”



# Will We Ever See the Biochar Sell?

---

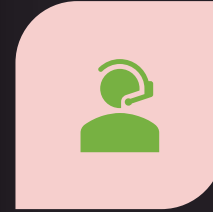


# Added Heat Source

---



# Where We Go From Here



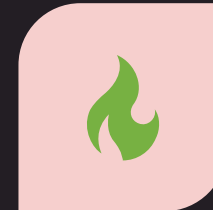
OPERATE 24/7



GET A GRANT



SCALE UP THE UNIT



IMPROVE THE HEAT SOURCE



CREATE VALUE ADDED BIOCHAR





# Questions?

---

Tyson Nicoll

Email: [tyson@sowbiochar.com](mailto:tyson@sowbiochar.com)

Phone: 928-245-1996