



A forester studies how forests and woodlands grow, function, and are managed to provide things that people want and need from forests. Specifically, I study prescribed fire and how it can be used as a tool to manage our forests and wildlands.

Dr. David R. Weise

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<http://www.naturalinquirer.org>



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Important Scientist Characteristics

My math skills led me to graduate school to study statistics, modeling, and sampling. I use these studies to design experiments, take measurements, and test models of how a fire behaves. My curiosity leads me to ask questions and challenge our understanding of how fire “works.” Studying fire is fun!

Example of a simple research question I have tried to answer:

Wildland fires burn in both living and dead vegetation. Living vegetation usually grows vertically while dead vegetation usually lays on the ground. I am trying to improve our knowledge of how fire spreads in living vegetation which always has more water in it than dead vegetation.

Technology or equipment used in research: I use video cameras that see the flame like a human eye. I also use tools that examine the hot gases of a flame. By analyzing how the flame flows around and through vegetation, we understand how a fire ignites and spreads through the vegetation.

• Most Exciting Discovery

- We demonstrated that wind is
- sometimes a requirement for a fire
- to spread successfully in wet fuels
- (dead and live). This discovery
- contradicted our previous
- modeling of how fire spreads.
- Some fire users knew this from
- experience, but this hadn't been
- widely demonstrated in a lab.

- **When did you know you wanted to be a scientist?** I knew I wanted to
- work outdoors in forests by 10th
- grade. Starting my sophomore
- year in college, I worked as a
- Cooperative Education student at
- the Forest Service Southern Forest
- Fire Laboratory and decided to
- become a scientist a year later.

<http://www.fs.fed.us/psw/programs/ff/staff/dweise/>