From Forage to Fashion
New Innovations in Wool

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You know you’re getting old, when you cease to be amazed.

- For at least 10,000 years, sheep, humans, dogs and rangelands have lived in a symbiotic, transhumance system that sustainably produces milk, meat and wool when managed correctly.
- Sheep eat grass and convert it into wool, what’s your superpower? Think about that, slowly....
Wool Amazing? Seriously How Much Hemp Have You Been Smoking?

- Absorbs 40% of its weight in water
- Self extinguishing
- Natural moisture wicking
- Insulating
- Natural resistance to compression
- 50% atmospheric carbon
- Odor resistant
Wool Good for the Environment? What about all those sheep farts?

- A 14% increase in new methane production in the US by domestic livestock since European settlement. (Hristov 2012, JAS 90:1371)

- US sheep industry is 0.023% of US GHG emissions. (US EPA data)
Products from the Greatest Generation

**Pro’s**
- Mostly USA grown and sewn
- Huge supply, government encouraged production
- Helped win several wars
- Army blankets and sweaters
- Military uniforms, gloves and socks
- Navy Pea Coat

**Con’s**
- Meant to keep people warm
- Treated with insecticide for moths
- Made from coarse wool and itchy
- Hard to clean and care for
- Heavy and bulky
Products for the Millennial Generation

**Pros**
- Made with superfine Merino
- Lightweight next to skin comfort
- Treated for easy care
- Environmentally friendly
- Outdoor and athletic wear
- Cold and hot climate military applications
- Designed for cold and hot climates

**Cons**
- Expensive compared to synthetics, due to short supply and US manufacturing
- Hard to find American made
- Not a high government priority
Superior Comfort and Performance

- Naturally odor resistant
- Compression resistant
- Durable and warm
Emphasis on Water Purity

- Microplastic contamination of water from synthetic clothes and pods
- Release up to 4,500 microfibers per gram of clothing washed and 40% pass into our water
- We have now found microfibers in fresh fallen snow in Antarctica and human blood
New Commercial Uses

- Low value wool pelleted as a soil amendment for gardening to regulate soil moisture
- Lanolin used as a natural fat in commercial shrimp feed
Montana State University Wool Lab Mission Statement

The Montana Wool Lab is a resource that supports the wool industry of Montana and the surrounding region through quality, genetic, and fiber testing services for the producer and research communities. The lab supports the industry through education, outreach, and field services.

This will be done by establishing stable funding for a wool lab manager at an appropriate faculty level through a modern, well equipped, teaching and research facility that can accommodate the testing services needed by the industry and research communities.
On-the-Ground Work

2020-2022: 38,000+ samples for genetic improvement and sorting production lines

2002-2022: Over 2 million pounds of wool collected, sorted, repackaged and marketed through the Eastern Consolidated Wool Pool.

2018-2022: MSU Extension personnel have helped train 39 students in Texas, 74 students in various levels at formal Montana schools and 132 members of multiple Hutterite Colonies across the state.
We have paved over 142 million acres of earth in the past 35 years.

Basically, covering Idaho with pavement or concrete every 13 years.

This is the true environmental disaster of your time.