featured

FAMILY LIVES MORE SUSTAINABLY

Lessons learned from the land shape couple's successful return to rural setting

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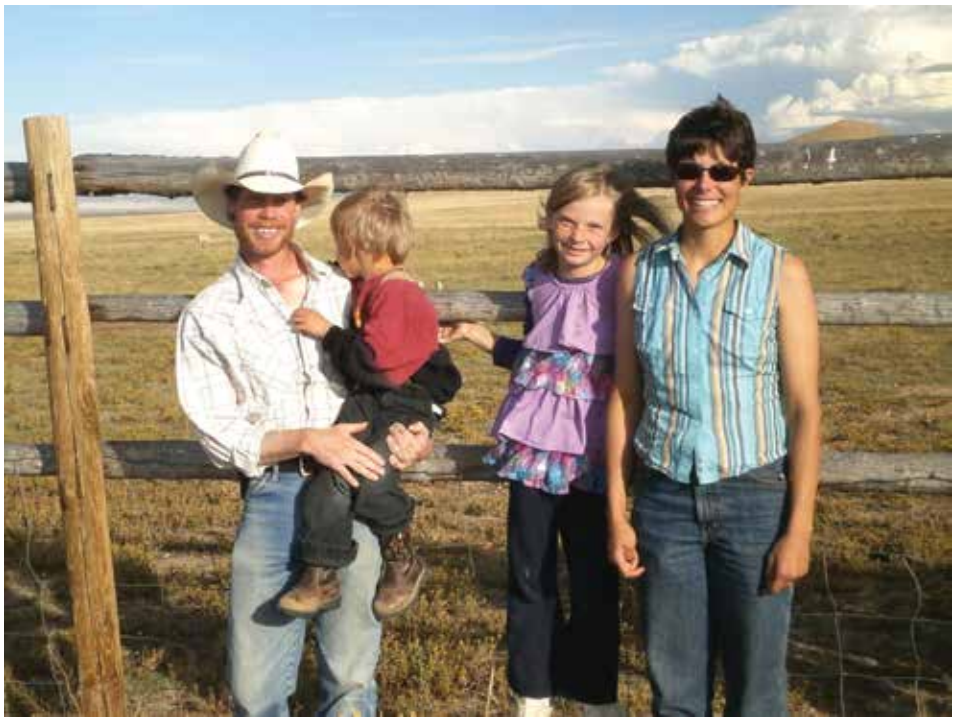
As Bryan Tronstad rushed out in the howling, frozen, pre-dawn darkness on Christmas Eve to save his high tunnel from being torn apart by gale-force winds, he was once again reminded creating a sustainable, productive property on the Laramie plains isn't easy.

Low precipitation, short seasons, and winds that can knock a person flat require perseverance, ingenuity, and determination from those who make this beautiful land their home.

Driven by their desire to live more sustainably, return to their rural roots, and to give their kids (3 and 7 years old) rural life experiences, Bryan and Lusha Tronstad took on these challenges when they purchased 223 acres northwest of Laramie in 2007.



Bryan and Lusha Tronstad with son, Everett, and daughter, Tresize.

Conforming to Conditions

Growing up on a wheat, barley, and small cattle operation in northwestern Montana, Bryan was originally interested in raising cattle on the property. They soon decided the available grass wouldn't support very many cattle for very long. Their interest then turned to sheep. Sheep were a better fit for the land because of the amount of forage they consume and the weeds they control. More importantly, though, Lusha, who had been crocheting since her grandmother taught her when she was 5 years old, had a great interest in fiber arts.

The couple sold the cattle and purchased three Polypay sheep. Since then, the Tronstads have added to their flock with Rambouillet (selected for their hardiness to the severe winters and fine, soft fleeces for spinning) and Border Leicester sheep (selected for their long, coarser, more durable wool) and phased out the Polypays. Most recently, they added a Teeswater ram.

The sheep are blanketed year-round to protect and keep the wool clean and free of debris so the Tronstads can use the wool for fiber. Bryan shears ewes in the spring prior to lambing. The timing of shearing helps ensure the ewes will keep their newborn lambs warm by staying in the sheds out of the wind. Lambs not kept in the flock for wool production

are kept for personal consumption or sold.

Working the Wool

Two soakings in hot water with soap cleans the wool. A third cleaning is just with hot water. No agitation is used. Bryan then dyes some of the washed fleece. The wool is ready to pick when dry. It is then carded, a process that aligns and readies the fibers for spinning or felting.

Lusha says working with fiber is a great relaxation.

"Fiber is something I do every day that I don't get tired of," she says. Lusha felts the fleece or spins it for knitting and weaving. She also sells her fiber (fleece, roving, and spun wool) at one of the local yarn stores.

Predators are a concern with sheep but so far they have not had any issues. They attribute this to good fencing, the use of sheds at night, and their Great Pyrenees, Zeus, who keeps a close eye out for intruders.

Provide Fresh Vegetables, Herbs

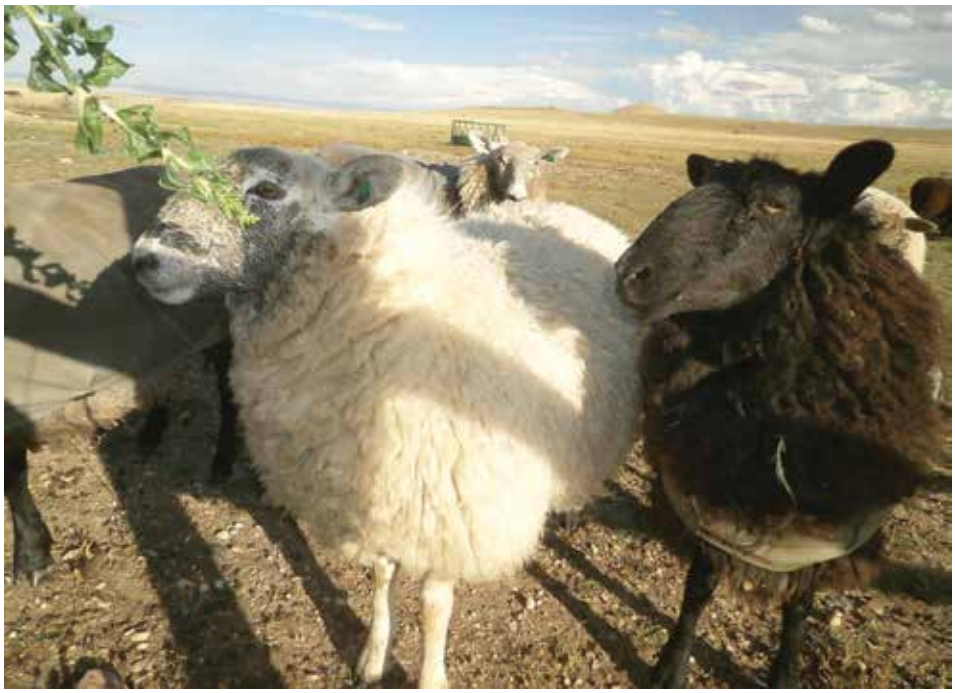
The Tronstads also have a thriving Community Supported Agriculture (CSA) enterprise. The CSA provides local customers a wide range of fresh vegetables and herbs, which are delivered to their doorsteps July through September.

They started out growing vegetables for themselves in a few raised beds. Along with the short growing season, their biggest challenges were the alkaline soils on the property and the high concentrations of salts (calcium and magnesium) in the water. They gradually learned frequently incorporating well-composted material created by their sheep (accumulated around windbreaks and sheds) and chicken manure helped address these issues while increasing soil organic matter. They decided to expand after learning how to successfully grow vegetables in this environment.

Several outdoor plots provide a wealth of lettuce, peas, kohlrabi, spinach, carrots, and other cool-season crops; however, higher production and greater variety was impossible because of the 90-day average growing season and ferocious winds. Their large high tunnel, built in 2008 with grant support from the Wyoming Department of Agriculture Specialty Crop program, is key to making this enterprise feasible.

Wrestling the Wind

Even with the tunnel oriented east to west (so the prevailing wind hits the smallest area of the tunnel ends), keeping the structure intact with the fierce Laramie winds has been challenging. Switching from a more traditional plastic film cover (with its tendency for a puncture to turn into a rip down the entire side of the structure) to a more durable woven poly



The Tronstads switched from cattle to sheep to better utilize their land's forage production.

"skin" three years ago has helped. Bryan says the skin is more expensive, but the increased durability and decreased light penetration (which keeps the temperature more moderate inside during the summer) of the woven cover have made the change worth the price. Last year, he also added additional straps on the outside of the structure to decrease the vibration (whip) of the covering in the wind.

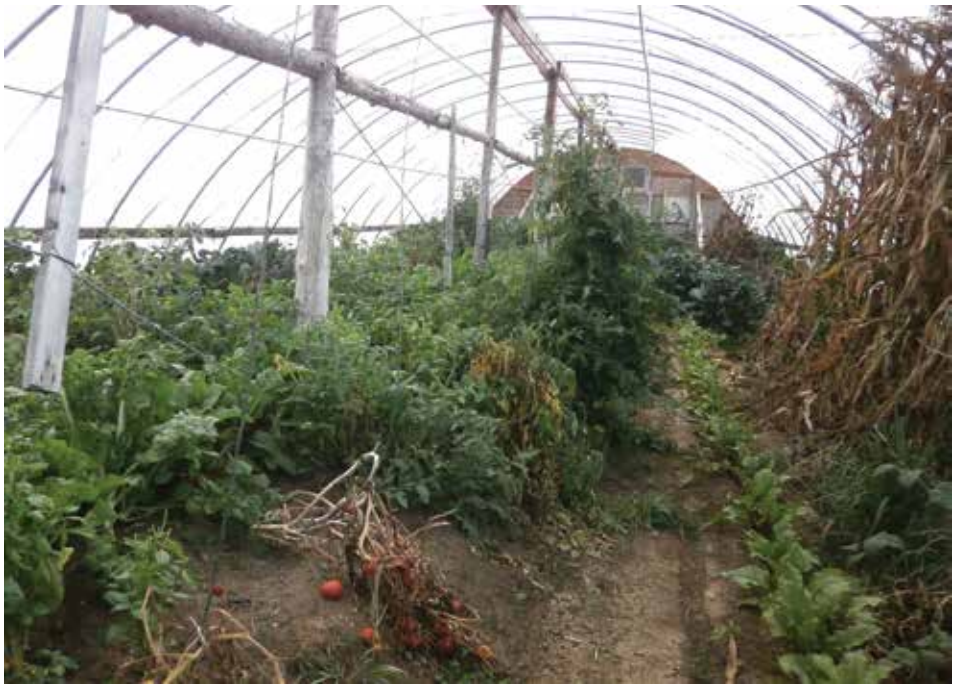
The Tronstads are still experimenting with irrigation in the high tunnel. They tried drip irrigation but found the minerals clogged emitters too quickly, then soaker hoses, and this year they tried sprinklers; however, this seemed to lead to more tomato rot. As Lusha says, "Live and learn…every year is a learning experience."

Thus far insects don't seem to be a big problem in the structure unless plants are already stressed. They use companion planting (such as tomatoes next to basil) and a plant rotation system to help decrease pest problems. Rotating crops in the outside gardens during the season also seems to help control rodent issues.

Start in the Sun Room

Bryan usually begins the growing season by starting plants from seed in the sun room in their house in February and March, moving the cool-season crops to the high tunnel in April and the warm-season crops (such as tomatoes) in May, weather pending. Generally, most vegetables in the tunnel have had their final commercial harvest by the end of September with the exception of cool-season crops.

The high tunnel continues to provide the family with produce long after the commercial portion of the season ends.



End of the main growing season – the high tunnel extends the growing season and protects vegetables the Tronstads sell through their community supported agriculture venture.

"This is a way of life for us," Lusha says. "We don't buy vegetables."

They'll continue to harvest greens through December or January. During the darkest and coldest portion of winter, the freezing, canning, fermentation, and other food preservation Lusha has done during the growing season keeps the family well fed. Nothing goes to waste out of the vegetable garden – leftover produce is fed to the chickens, which quickly consume it and transform it into eggs (for consumption and sale) and manure.

Although the environment is challenging on the Laramie plains, the Tronstads find their efforts provide rich rewards in satisfaction – whether working with the fiber they have produced, eating their home-grown vegetables, fresh eggs or meat, or in watching their children thrive in their rural setting.

For further information, check out:

- *Wyoming Department of Agriculture Specialty Crop Program* http://bit.ly/wyospecialtycrops
- *Rural Guide to Community Supported Agriculture*, B-1251, is available for free download by going to www.uwyo.edu/ces and clicking on Publications on the left side of the page. Type B-1251 in the Search Publications box.
- *Wyoming Fiber Trails* http://wyomingfibertrails.org/
- *Hoop House Information Network* http://www.wyomingextension.org/whhin/
- *Food Preservation Resources* http://bit.ly/uwyopreservingfood

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