featured HIGH TUNNELS, HIGH PRODUCTION

By Jeff Edwards

Nestled in the bottom of the North Platte River Valley in western Goshen County lies a piece of property where one can actually say the "river runs through it."

This 31-acre tract was purchased by Don Williams in 1995 and is about three miles from the Goshen-Platte county border. It features the North Platte River streaming through its center.

Don's intent was to establish a home and eventually move there once retired from his position as Farm Service Agency district director for northeastern Wyoming.

"Actually, there wasn't much here when I bought it – sagebrush, gophers, a 14- by 70-foot mobile home and a single outbuilding with electricity. Oh, yes, and a pitiful little garden spot about 20 by 30 feet."

Don moved to the property in 1995 and retired in 2005. He is known to be an excellent baker and claims to be a budding flower enthusiast. Don also



Don Williams built and used a high tunnel this year. "Boy, does it raise stuff," he says.

enjoys growing and preserving his own food as part of an effort to become more self-sufficient.

Constructs Second Outbuilding, Plants Shelterbelt

Don immediately started making improvements upon moving to the property. He built a second outbuilding and began planting an extensive shelterbelt that included red cedar, ponderosa and Austrian pines, chokecherry, and wild plum.

"They do the best here, although it has been a bit of trial and error," he says. "I've had some failures, too, particularly Black Hills spruce – just can't get them to survive."

Don's other successes include a variety of apple trees planted around the property including on an island in the river. "Those trees can be a little tricky to get to – particularly in the summer when the river is running high," he says.

The season was longer this year for running water and was a little higher than average. Some of the trees on one of the islands died this year, but the trees on the other island should have apples.

The river location hosts diverse wildlife, one of which – deer – can be a major pest when attempting to grow one's own food. Don increased the size of the garden to 55 by 70 feet and created a fencing system that keeps out unwanted guests. He produces a wide variety of produce and fruit every year.

In addition to traditional garden vegetables grown in Goshen County, such as peppers, green beans, potatoes, tomatoes, carrots,

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beets, onions, leafy greens, cabbage, and broccoli, Don has started perennial crops including raspberries, asparagus, rhubarb, and horseradish.

"I've always been an outdoor/farm kid – I garden this way because it's cheaper than farming and less work than raising dairy cattle," he quips. Don was raised on a dairy farm in Michigan.

Builds a High Tunnel

In the spring of 2010, Don enrolled in the Goshen County Master Gardener program because he believed he needed to learn more about horticulture.

"Through their program, I was introduced to what high tunnels are and how they could increase productivity in my garden," he says.

Don attended several workshops to learn how to construct high tunnels and began building his own with the help of the Goshen County office of the University of Wyoming Cooperative Extension Service. His final product is 17 by 36 feet and, "Boy, does it grow stuff," he says.

High tunnels are considered a passive greenhouse – no energy inputs are needed to heat and cool the structure; they offer protection from Wyoming's wind and volatile spring and fall weather.

Don began planting crops in his high tunnel in early April and believes he will be able to grow some cool-season crops, such as leafy greens, though most of the winter.

Through the process of building and running the high tunnel this summer, he's learned some management tricks.

For example, one can easily cook the plants if there is no ventilation in the summer.

"You can't just leave high tunnels shut up all the time. You have to get the air moving through them to keep them cool," he notes.

Insects and fungal diseases can also get ahead of someone using a high tunnel and wipeout an entire crop. But, when monitored and managed appropriately, a plethora of crops can easily be produced. Besides fresh eating and preserving everything possible, he gives away the rest "mostly to my friends and neighbors and also to unexpected guests."

His long-term goal is to continue developing sustainable food production and preservation techniques to enhance his quality of life.



Williams created a fencing system that keeps deer out of his garden.

Jeff Edwards is an educator with the University of Wyoming Cooperative Extension Service. When not observing bugs (see ladybug story page 25), he also teaches others how to build high tunnels. He can be reached at (307) 532-2436 or at jedward4@uwyo.edu.