



featured

PATCHING TOGETHER SUSTAINABLE

By Tony Hoch

On Harmony Flats 20 miles southwest of Laramie, Steve and Bren Lieske have built a comfortable life in the past 20 years on their 41-acre parcel of land.

Based at the Patch Ranch – proudly named because of their ability to patch things together – they run two businesses and are able to feed themselves almost entirely from food they grow at 7,300 feet elevation. One hundred mile per hour winds are not unusual in the mid-winter months.

Originally self-described city people, they knew what they were getting into when they bought the place in 1989. Steve had worked and “earned



Chickens supply meat, eggs, and their manure is composted. Goats will also provide meat for the Lieskes.



Water did not freeze in this double-walled tank with a floating Styrofoam cover and 150 watt heater despite temperatures dipping to -40 F last year.

his spurs” as a ranch hand a mile down the road at the foot of Sheep Mountain. They cite neighbors as an integral source of information when they were getting started. Steve didn’t build anything without consulting neighboring ranchers because they know what works best in this harsh environment.

House Elements Function of the Environment

The couple’s main business, Harmony Heating and Home Comfort, is an offshoot of the environment of the Patch Ranch. Housing must be tight and energy efficient here, particularly with the cost of rural electricity and LP (liquid propane) gas.

Steve is a licensed installer and designs and installs solar photovoltaic

(produces electricity) and solar thermal (produces hot water) systems and performs comprehensive home energy audits.

His own home employs the concept of picking the “low hanging fruit” before moving into costly and intricate alternative energy systems. They do not have photovoltaic or wind turbine systems but have a tight, well-insulated house that fully utilizes southern exposure to capture the sun with regular double pane windows and three larger patio-door sized windows built as passive “air heating panels.” These are simply south-facing, patio-sized windows with a black casement built inside behind them to capture heat and disperse it through indoor adjustable vents (search “solar air collectors” on the Web for more information). Two of these are passive (no fan) and one is active (with fan) to better circulate heat.

Wood Stove, Furnace Act as Heat Backups

A wood stove backs up the solar heat for nights and on particularly cold and cloudy days. For further backup, they have a high-efficiency LP-burning furnace that had only consumed about 50 gallons of LP for the winter season as of our interview in mid-January. Their house is about 1,200 square feet in floor area.

Until recently, Steve and Bren’s largest electricity consumer was a

landowners

LIVING ON THE HIGH PLAINS



*Bren and Steve Lieske
at their small acreage
on the high plains
southwest of Laramie.*

1,500 watt stock tank heater, but, with some ingenious designing, Steve patched together a smaller, double-walled stock tank with a floating Styrofoam cover that operates on a 150 watt heater. Their total electric bills in the coldest months are under \$100 per month, and last year the stock water stayed thawed when temperatures were -20 F to -40 F for 10 days. The cost of well water pumping is kept to a minimum because they are lucky to have good groundwater at only a 6- to 10-foot depth.

Self-Sustaining Lifestyle

Bren's business – "Bren's Hens" – meshes perfectly with their self-sustaining lifestyle because they would be raising chickens to feed themselves anyway. They have 50 free range, barred rock chickens that provide meat, eggs, and manure, which is composted and recycled into raised bed gardens.

Bren is as proud of her soil as she is of her produce. The land under the ranch is a remnant of ice age river systems consisting of gravels and not

Steve's advice for newcomers to rural living is to listen to the wealth of information from the locals.

much else but carbonate hardpan. Over the years, the couple built up the soil in raised beds from manure composted with the aid of introduced redworms and night crawlers. Their composting system consists of heaps of manure that are turned occasionally.

The 50 chickens produce about 40 eggs daily, which are taken to town and sold at the natural foods

co-op. They also keep enough eggs to eat and butcher the occasional chicken (about 40 chickens a year) for their own dinner table.

They also recently started keeping goats (three Savannahs and one Boer), which they will breed to raise meat. Bren is exploring the marketing possibilities for goat and rabbit meat – they have five does and one

buck rabbit and are getting ready for production.

For fun, Steve and Bren also keep two horses as pets.

Steve's advice for newcomers to rural living is to listen to the wealth of information from the locals. "It's better to learn what works and what has been tested by time in a given set of conditions rather than trying to reinvent the wheel," he says.

AMENDED SOIL PROVIDES WEALTH OF PRODUCE

Gardens must be built up rather than dug down at the Patch Ranch due to the hardpan layer.

Before building gardens, Bren Lieske had garden plots in nearby Centennial and Centennial Valley. Bren moved much of her soil three times over the years before it found its way into the current location.



A cold frame helps garden plants get a jump on spring.

All vegetable food waste is fed to and processed through the chickens and eventually makes its way into the garden beds as worm compost. The compost adds vital nutrients to the soil and greatly improves its texture.

Bren grows basil, parsley, tarragon, sage, lovage, and other herbs to sell at the Centennial Farmers Market and for their own table. They also grow other vegetables to sell and for their own consumption. These include lettuce, carrots, mustard greens, kale, collard greens, and green beans. They pickle green beans and beets and freeze greens to make the garden produce last all year. Bren hardly buys vegetables or meat at the store, except for the occasional off-season tomatoes.

The only season-extending hardware used is a cold frame to give garden plants a head start in the spring. The raised beds are also protected from the relentless west winds by strategic placement amongst buildings and the living shelterbelt.

They have also adapted to the windy environment by planting fruit-bearing shrubs in their western wind break – these include gooseberries and currants, which can be cooked and preserved in a variety of tasty treats.

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