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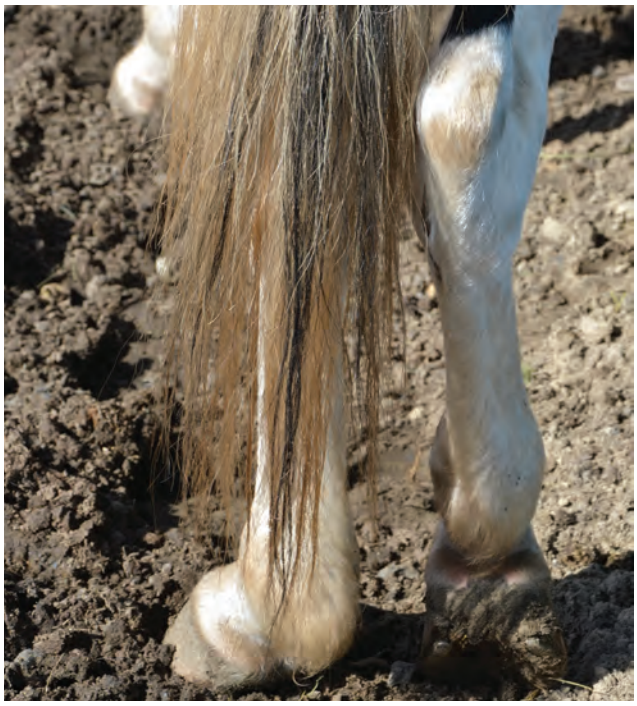
Walker's Tornado Farming: Taking Point Source Pollution to Productive Sustainable Farmland in Seven Years

Siletz, Ore. – A tornado is the symbol in their farm's logo and for their personal lifestyle. Randy and Sarah Walker have generated a whirlwind of conservation activity and results as they converted their 20-acre property located 16 miles east of the Pacific Ocean, from point source polluter to productive, sustainable farmland. Their success is the result of their vision, hard work and the assistance from technical staff and programs of the USDA-National Resource Conservation Service (NRCS), the Lincoln Soil and Water Conservation District (LSWCD) and other natural resource partners.

The Walkers, who began farming along the Siletz River seven years ago, have mitigated mud and manure runoff, fenced and cross-fenced pastures, managed pastures for livestock grazing, installed solar panels generating 13 kWh power, and will soon complete a rainwater catchment system to store 5,000 gallons of water for summer irrigation. The swirl of conservation projects, "Couldn't have been done without NRCS," says Sarah.

Their ambitious conservation development process began when Randy walked in the door of the NRCS office and spoke with District Conservationist Kate Danks. "Randy and Sarah had 21 things on their wish list when they first came into our office," says Kate with a smile. "So we began to tackle them, starting with the mud

ABOVE: Sarah Walker holding a naturally-raised lamb



Mud is mitigated in the horse paddocks by the installation of a pipe to drain water

and manure caused by the horses boarded in their barn, and then broadened from there," she explains.

Most of the projects conducted on the Walker Farm were funded as part of the Environmental Quality Incentives Program (EQIP), a voluntary program that provides financial and technical assistance to agricultural producers to help plan and implement conservation practices that address natural resource concerns and for opportunities to improve soil, water, plant, animal, air and related resources on agricultural land and non-industrial private forestland.

In the winter in western Oregon, the apron of land surrounding a horse barn or arena can become a sea of sticky and smelly manure-laced mud, caused when hooves cut into the wet soil as the horses move in and out of doors opening to pastures or paddocks. On the Walker's Farm, this situation was compounded because there were no gutters on the barn roof to capture and shuttle the annual 70 inches of rainfall, and no drainage features in the small outdoor paddocks that protrude from each stall.

One of the first NRCS-assisted projects was to provide cost-share to install gutters for the barn and other non-residence farm buildings, to replace the horse paddock with layers of rock, gravel and sand and to install 8" diameter pipelines to move the water to a suitable outlet area in the pasture. With this improvement in place, the horses stood high and dry, even after a long, wet winter.

Covered manure storage areas were erected at the horse barn and also on the west edge of the hog and poultry operation to hold the manure until it could be removed and spread on the fields. This area also houses a compost-making operation that would produce a rich gardening medium. Manure is the base ingredient for making compost. A cement pad was poured to minimize the chance of the manure pile entering waterways causing a water quality issue. "The danger of runoff from the manure was a real emergency, and NRCS came through. Kate Danks and the others are really good at helping us solve problems," says Randy with a note of relief in his voice.

When the Walkers first bought their farm, a mountain of horse manure was piled high in the pasture near the barn. "There were several full dump trucks of manure there," says Randy. It is possible that runoff from that unmanaged manure was not fully filtered through the soil and that potential pollutants were carried into the Siletz River. "The water table is very shallow on the Walker Farm," says Kate. The conservation measures taken by the Walkers through the EQIP and Conservation Stewardship Program (CSP) have lowered the potential for impairment of water resources. The Siletz River is an important habitat for fall and spring Chinook salmon, Coho salmon, winter and summer steelhead and cutthroat trout.

Later in 2012, the Walkers will be putting rainwater to work for them. Through another NRCS project, giant plastic rain barrels have been installed under the gutter spouts of the horse barn. An underground pipe system will soon connect the water tanks to the drip irrigation system,

bringing water to their raised-bed vegetable growing operation. A solar-powered pump will move the water from the tanks to the pipes. "Water conservation and energy conservation are community and nationwide issues, so being involved helps all of us meet those goals," says Kate.

The rainwater catchment is a smart management practice because it reduces the need to pump water from the well. In addition, constructing a rainwater catchment gives the Walkers the water to pump for irrigation late in the season, when they are not allowed to irrigate from the well. When a well is located within 1000 feet of a river, it is considered part of the river's water supply so any use of that water is subject to established prior appropriations.

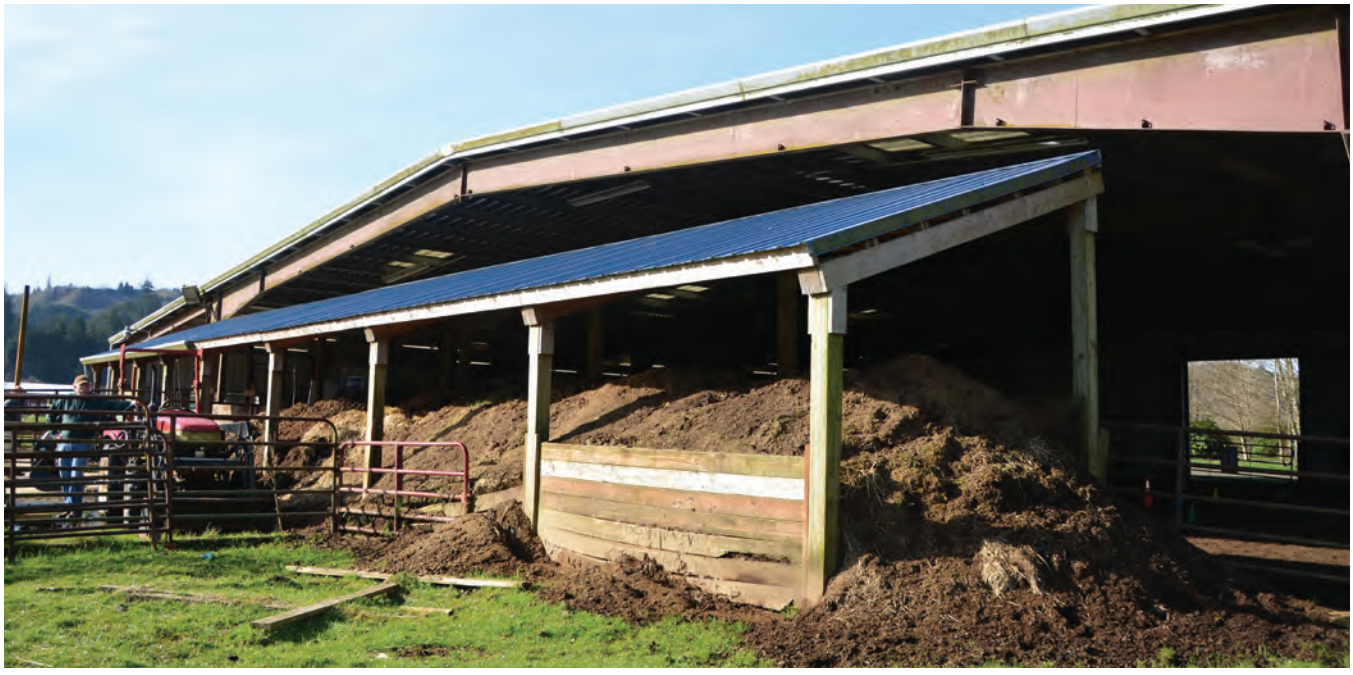
Seven years ago, both Walkers had jobs off the farm. Today, the conservation projects provided cooperatively by NRCS, LSWCD, Oregon Department of Environmental Quality (DEQ) and USDA Rural Development have helped make it possible for both Sarah and Randy to be employed full time on the farm. "All these things help us be sustainable and do a better job of farming small acreage," says Randy. "That's where we are today–eking out a living–a modest one, but an honest one," he adds.

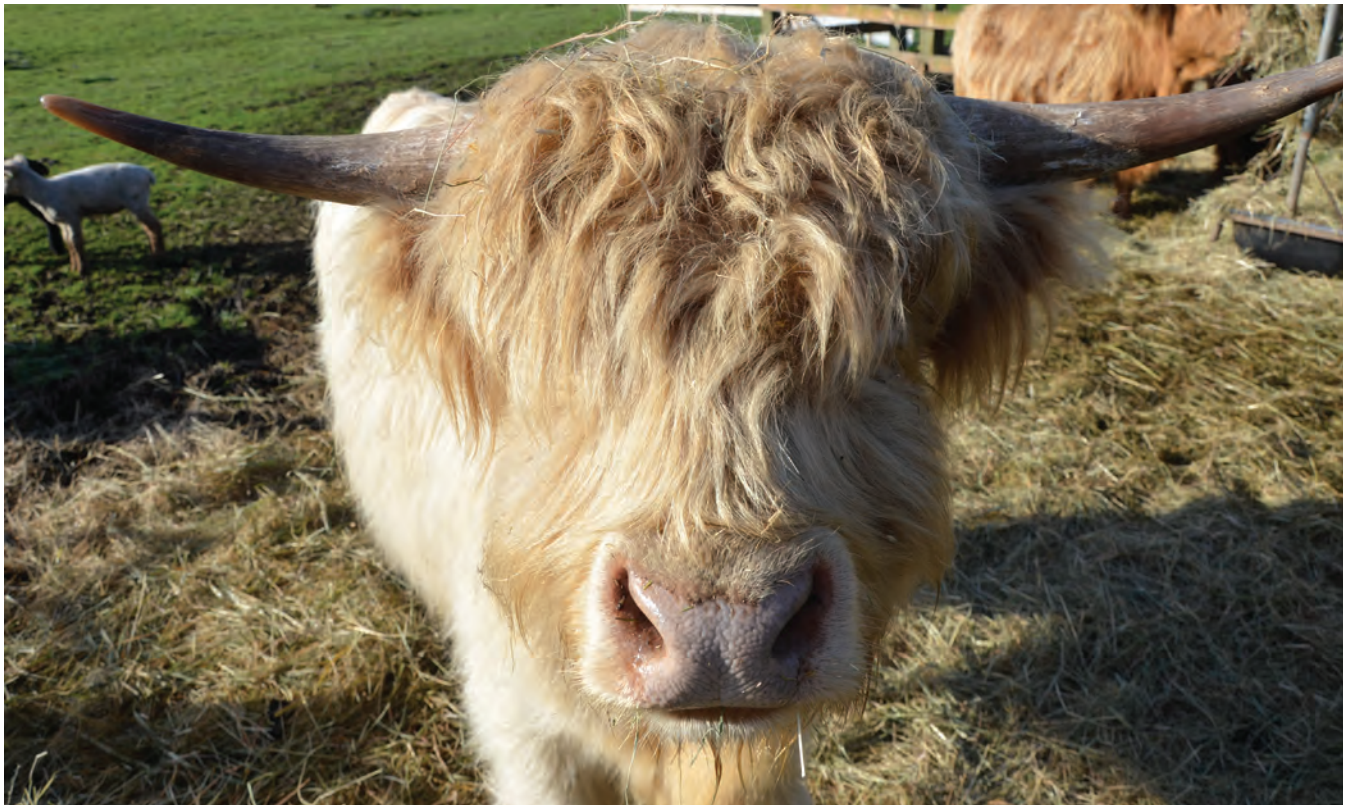
"NRCS is only successful if the landowner is successful," says Kate. "All of our programs are voluntary, and without their initiative, desire and passion for what they are doing, it wouldn't happen."

As they have been putting the conservation practices in place, the Walkers have been building a successful meat business. They sell sustainably-raised lamb, chicken, pork and beef to local high-end restaurants and at local farmers markets. "Our Porterhouse pork chops are one of our most popular items," says Sarah as she holds up a thick chop that is packaged for market. The Walker farm became vertically integrated when they added a state-of-the-art chicken processing facility and commercial kitchen that allows them to harvest and package the chickens raised on their farm, as well as to make value-added pork sausage and other specialties.

Their horse arena is paying for itself by boarding horses and housing the Bright Horizons therapeutic riding nonprofit organization. The group rents stalls for their therapy horses and

Covered manure area prevents leaching nutrients into the waterway





Livestock thrive on Walker Farm

uses the arena as a safe environment to help disabled youth build their physical strength and balance while they gain a sense of confidence and accomplishment.

According to Randy, a sustainable farm is like a big circle, with outputs and inputs. "The idea is to have an many outputs and as few inputs as possible, with an economic program that works well for small farms and does a really good job of husbandry to the world," says Randy. The Walker's farming goals are: to avoid polluting; to use as few resources as possible; to feed as many people as possible; and to educate as many people as possible. The Walkers envision their farm as a future showcase for sustainable agriculture, and are planning now for the signage and other infrastructure that will be needed in order to tell the story of their practices.

For a girl raised in the inner-city of St. Louis, Missouri, Sarah has adjusted well to the farming life. "It never occurred to me that farming would be something I would enjoy," admits Sarah. "While she came kicking and screaming to the farm, she has taken quite well to it," says Randy with a twinkle in his eye.

Randy and Sarah feel their effort to turn around a farm that was over-grazed, over-run and under-kept has been successful. "The place looks better now than it did; we are paying the bills and this place is not a polluter," says Randy. "NRCS has played a strong role in this success. They have helped us with expertise and funding to get these things done and change this farm from a polluter to a non-polluter and to have a positive influence on the environment," he adds.

As Randy runs to start up the tractor for an afternoon of fencing work, Sarah tousles the ears of her part-terrier farm dog, and sums up her farming philosophy, "When you are on a farm there is never just one project going on. Everything is going on all at once. Just like a tornado." And with a friendly wave and a bright smile, she swirls off to help Randy fix the fence in the lamb pasture.