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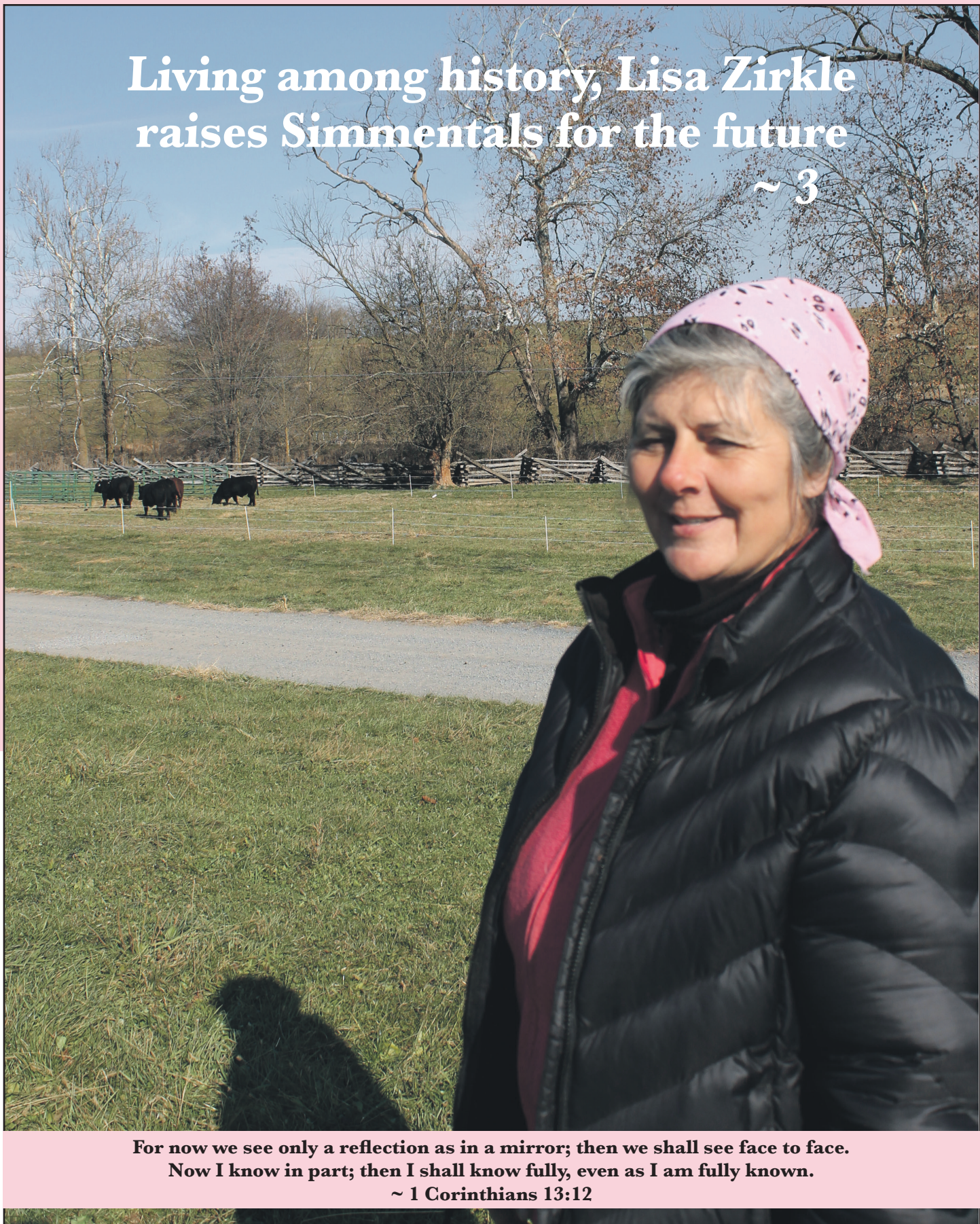

Living among history, Lisa Zirkle raises Simmentals for the future
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**For now we see only a reflection as in a mirror; then we shall see face to face.
Now I know in part; then I shall know fully, even as I am fully known.
~ 1 Corinthians 13:12**

Living among history, Lisa Zirkle raises Simmentals for the future

This barn on Zirkle's farm dates back to just after the Civil War, when it was built with the foundation of a barn destroyed during the War.

by Karl Kazaks

The Saturday before Thanksgiving, over 150 people descended on Shenandoah Valley Simmentals for Lisa Zirkle's eighth annual production sale. The Shenandoah's Shining Stars Bull Sale featured 71 bulls and 5 females, almost entirely purebreds from the herd Zirkle has developed since the mid-1970's, along with some SimAngusTM. Buyers from a half a dozen states were in attendance, with buyers as far away as the Great Plains participating in the video auction.

The cattle being offered were on display in pens along the lane leading up to her farmstead, with the video auction occurring in a mid-19th century barn outfitted with vintage farm tools and other antiques.

As a girl, Zirkle, who lived in Mt. Jackson, would travel down that lane when she came to visit her grandparents on the farm.

"Ever since I was knee-high to a grasshopper I knew I wanted to be a farmer," she said. "Whenever my dad came out here I was glued to his side."

Zirkle's father Blair was the first to bring Simmentals to the Shenandoah Valley. The first bull he and his brother Bill bought was Caesar, a Canadian purebred bull acquired from the King Ranch in Texas. "I remember that day so well," Zirkle said.

A few years later Blair gave his daughter a bottle calf, a heifer. Ms. Daisy produced bulls in all of her first four calvings, so to increase her herd, Zirkle bought two heifers of her own. Her herd has grown from there.

Today the herd includes 250 cows and is predominantly black, though with a good number of reds, too. Calving is split between spring and fall.

Zirkle's philosophy is to select for practical, high-performance cattle, with good temperament and maternal ability. Because this is Virginia, they also have to thrive on fescue.

"They're athletes," she said. "They have to perform in our environment. They have to be very structurally sound to live on a farm as rocky and steep as this one." Being kept on the range, they also have to withstand sub-zero wind chill temperatures in the winter and 100 degree days in the summer. Zirkle always chooses cattle that are eye-appealing.

Because of their hardiness and their performance-oriented traits, Zirkle's Simmies have found favor among buyers in America's western range states. Her cattle go to buyers from up and down the east coast as well as from western states such as

Living A4

Forages help manage parasite load

by Tamara Scully

"Through the years, I've watched numerous small ruminant producers go in and out of business simply because they couldn't keep their animals alive," Heather Glennon, Assistant Professor of Animal Science, University of Mount Olive, said. "Hopefully, if you can incorporate these five bullet points into your grazing system, you're going to reduce the exposure of your small ruminants to worms through grazing management."

Those bullet points, outlined in a recent USDA Natural Resources Conservation Services webinar presented by Glennon, focus on grazing management in order to regain control of parasites in the small ruminant herd.

"From the NRCS perspective, there is a lot of interest in doing more intensive grazing management plans for small ruminants," Steve Woodruff, USDA-NRCS agronomist, said.

The top parasites of concern for small ruminants are barberpole (haemonchus contortous), hair worm, and brown stomach worm, with the barberpole worm being the primary parasite of interest. The larval stage known as L3 is the infectious stage of this worm.

Infected animals deposit the eggs in their feces, and within four to 10 days, the L3 larval stage emerges. This infectious larval stage can live for two months in very hot and humid weather, or up to six months in cooler conditions. Hot, dry conditions hasten its demise. In the L3 stage, the worms use moisture from dew or rain to crawl up stems of pasture forages, up to three inches above the ground. If this grass is then grazed by a susceptible animal, it becomes infected and the cycle begins again.

"Anywhere there is a humid environment, you're going to have problems with parasites," Glennon said. Parasites "steal the nutrition from the animals," causing reduced growth, reduced milk production, decreased feed intake and feed efficiency, and increased mortality.

Symptoms of barberpole worm infection include: white eye membranes; bottle jaw - due to fluid accumulation; decreased weight; weakness; and sudden death. The worm feeds on the animal's blood, causing anemia. It lays up to 10,000 eggs per day. With a significant anthelmintic (de-wormer) resistant populations plaguing producers, other options for worm control will play increasingly significant roles in maintaining herd health.

Grazing management

"If your animals aren't getting proper nutrition... it can increase the infection and the effect on the animals," and maintaining forage quality and grazing high are both important considerations, Glennon said.

Producers can incorporate a variety of grasses and legumes, both cool and warm season varieties, to enhance pasture potential. Using a combination of annuals and perennials can offer more options for intensively managing grazing behaviors.

Sheep graze in vines at Jack Rabbit Hill farm, Colorado. Photo courtesy of Ann Hanson, Jack Rabbit Hill Farm.

"Each of them can play a role in managing your animals' health," she said of the variety of forage types available.

Increasing the height at which the herd grazes a paddock can combat infections. Tall fescue, orchard grass, bluegrass or rye grass are in a nutritious stage at a taller height. These grasses, grazed at eight to 10 inches in height for optimal quality, allow animals to be removed from pasture when forages are still four or more inches tall, significantly reducing the L3's ability to infect animals.

Native warm season grasses are another option for tall grazing. These are grazed only to eight or 12 inches in height, are drought-tolerant, and palatable to small ruminants. Big Bluestem, Eastern gammagrass and Indiangrass are in this category.

Another way to graze higher is to use warm season annuals, such as pearl millet or sorghum-sudangrass hybrids, of sunn hemp, which provide a good quality forage as long as the stems don't get too mature.

"If you use warm season annuals in your rotation, you are probably only going to graze them down to six or eight inches," Glennon said.

Because planting annuals can involve disking or herbicide sprays, both of which cause soil desiccation, the parasites load is likely to be decreased. And, as these plants won't be grazed for at least 45 days from planting, the survival rate of any remaining parasites in the field is reduced.

Decreasing pasture parasite load

Another means of reducing infestation from pasture is to remove the animals from the fields and practice periods of woodlot browsing. This method also provides shade, a benefit during hot summer days. Silvopasturing research has shown that browsing plants such as black locust, honey locust, mimosa and mulberry can provide needed nutrition, including 20 percent protein content from the trees, which exceeds maintenance requirements.

"This is actually what they would prefer to eat given the choice," Glennon explained of the woodlot browsing. "The goats enjoy eating these things."

Grazing cattle or horses alongside small ruminants, or following them, can also decrease the parasite load. These animals don't share the same parasites, and the cattle or horses will graze and consume the worm eggs which cause

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Oklahoma and South Dakota. Customers include other registered breeders as well as commercial operators.

Some of Zirkle's bulls are in stud, including SVS Rawhide and SVS Badlands available through Accelerated. She also has a number of donor cows available for ET.

Beyond cattle, Zirkle raises heritage breeds of other livestock, including Pilgrim geese and Tunis sheep. She is also working to restore an old apple orchard on her farm.

During the first years of her life as a farmer, Zirkle, a Virginia Tech graduate, also had a public job, as a poultry processing plant lab manager. Now that she is a full-time farmer, she has more time for the other great passion in her life beyond farming: keeping the history of her farm alive.

For example, she is planning an archaeological dig near the 1859 Greek Revival house that is the farm's main home today. A recent excavation for a water line installation revealed the foundation of a formerly unknown building.

When she says, "It's in my blood, I've wanted to do this since I was a child," it could apply equally to her diligence at maintaining the farm's long history as it does to breeding the high-quality Simmental she offers to the American cattle community.

Zirkle is the ninth generation of her family to live in this part of the Shenandoah Valley. Her ancestors came to the area prior to the Revolutionary War.

The farm's original log cabin was built (not by the Zirkles but others settlers) prior to the Revolutionary War. It location is today easily identified by its still-standing chimney.

A stone's throw from the location of the log cabin stands the farm's second dwelling. It served as a place of worship, on a rotational basis, for the German Baptists from the early 1800's until 1841, when Flat Rock Church was built. In recent years, Brethren from Virginia, Pennsylvania, Kansas, and Indiana have ventured to Zirkle's farm to see this historic monument to an earlier time in their faith's history.

During the fall of 1864, as the Civil War was coming to an end, Sheridan and his men marched through the Shenandoah Valley, burning crops and barns. What is today's Zirkle's farm was not spared. After the War, however, the foundation from the barn was salvaged and used to build the barn, which today is the site of Zirkle's video auction.

In previous years, Zirkle has had a larger number of females on offer at her annual production sale. Next year, however, she is splitting her sale into a spring female sale and a fall bull sale.

Someday, a future historian of the farm will point to Zirkle's success with Simmentals as yet another chapter in the long history of this storied farm.

Zirkle recently sold 71 bulls at her Shenandoah's Shining Stars Bull Sale, most of them Simmental with a few SimAngus(TM).

Photos by Karl Kazaks

Cover photo by Karl Kazaks

Lisa Zirkle has been building her purebred Simmental herd in Virginia's Shenandoah Valley for 40 years.

Forages from A3

small ruminant concerns. If one species follows another, the period of re-entry for small ruminants is increased, too.

Moving the animals to new pasture at least every three days, allowing paddocks to rest 30-45 days before regrazing, and controlling forage height are all benefits of a properly managed rotational grazing system. Unlike a continuous grazing system, rotational grazing systems control the forage type and height, and limit the time spent on each pasture.

"Balancing between getting the best forage quality and the parasite exposure at that point in time," is the key to successful rotational grazing management," Glennon said.

Taking a hay crop from a grazing pasture is another way to reduce parasite pressures. When making hay, the animals will be out of a pasture for a period of time until regrowth occurs. The process of making hay exposes eggs to the air and sunlight, decreasing parasite survival.

Dietary influence

Tannins in the diet can increase protein efficiency, decrease bloat, and decrease the parasite load. Tannins, in concentrations greater than five percent, can cause palatability issue and interfere with rumen microbial functioning. Research has shown the effectiveness of sericea lespedeza in reducing parasite loads when fed at 50 percent of the dry matter intake, and is ongoing for birdsfoot trefoil, both of which contain tannins.

Enhancing the nutritional quality of the diet can readily be achieved by increasing the protein content of forages. A better diet provides increased resilience when a disease challenge occurs. Fertilizing at the recommended rates, feeding forages before they are too mature, and adding legumes to pastures will all benefit forage nutrition. Legumes will also decrease the need for added nitrogen application, while providing increased weight gain per acre for the animals, Glennon said.

Selective deworming

The entire herd should not be dewormed at once. Selectively deworming the most vulnerable animals can help to decrease drug resistance in the parastic population. By leaving some animals untreated, non-resistant parasites have the opportunity to reproduce. This may eventually increase parasite susceptibility to the dewormers, making them more effective as a tool.

"If we can keep a population of parasites in the pasture system that are not resistant to chemicals, and they are able to breed with the resistant nematodes, then we will have some shot" at maintaining the effectiveness of dewormers, Glennon said.

Managing forages is a first line defense in controlling reduced production and mortality due to parasite infestations in small ruminant herds. Better grazing management offers parasite control via a variety of pathways.

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