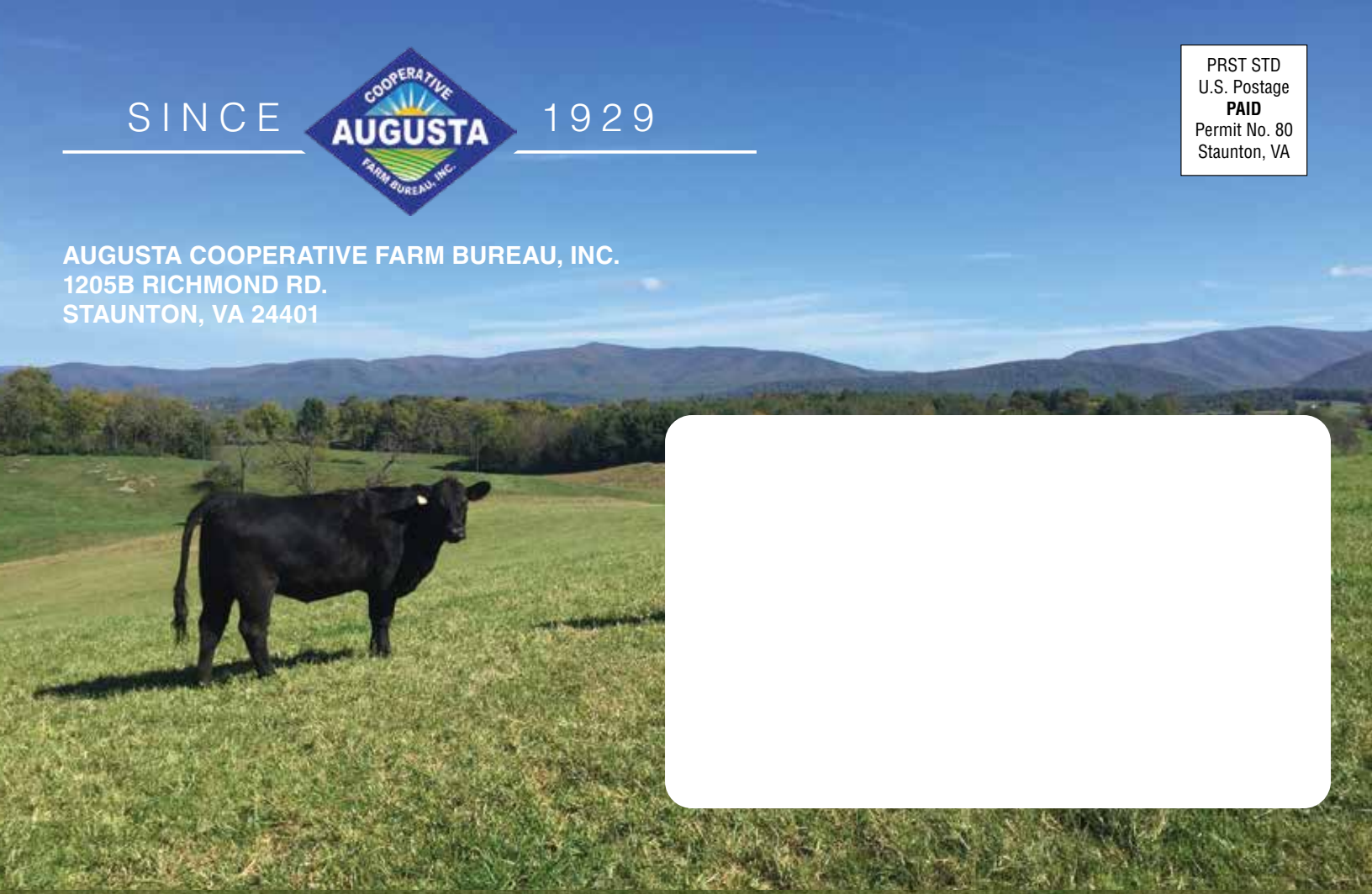
SINCE 1929

PRST STD
U.S. Postage
PAID
Permit No. 80
Staunton, VA

AUGUSTA COOPERATIVE FARM BUREAU, INC.
1205B RICHMOND RD.
STAUNTON, VA 24401



AUGUSTACOOP.COM
/ AUGUSTACOOPERATIVEFARMBUREAU
/ AUGUSTACOOPFB

AGRONOMY & BEEF BULLETIN

November 2020

SINCE 1929

MANAGING AND FEEDING CATTLE IN WINTER

Slight changes in temperature can have a considerable impact on energy and cow nutritional requirements.

Cold stress occurs when cattle require more energy to sustain basic bodily functions at a specific temperature, called the lower critical temperature (LCT). The LCT helps us understand when cows start experiencing cold stress.

As temperatures decrease, cow nutritional requirements increase. Add in precipitation or wind and requirements increase even more.

If cows are shorted on nutrition during cold stress, it can have a domino effect on performance.

Nutritional deficiency resulting from cold stress can lead to cows producing lighter and weaker calves. Low-quality colostrum and later return to estrus in the breeding season can also result, compromising conception rates and weaning weights.

Strategies for managing and feeding cattle in the winter can help alleviate cold stress and support cow nutritional requirements.

HOW CAN YOU MITIGATE COLD STRESS?

Cold stress mitigation should start with keeping cattle warm. Offering protection from the elements like bedding, windbreaks, snow breaks and a place to get out of the mud can all help keep cattle warm and dry. Protecting cattle from wind, rain and snow isn't always enough, however. Snow often reminds us to think about cow nutritional requirements and supplementation options. But what if the snow never falls? Temperature is the underlying factor in cold stress.

Plan out feeding strategies early, before cow body condition scores start to slip, to help your cows weather cold temperatures. Having a good body condition score going into winter does two things. First, a cow in body condition score 5 or 6 has a layer of fat insulation helping her conserve body heat. Second, cows in good body condition likely have a good diet, which can result in nice, warm winter hair coats.

KNOW YOUR FORAGES.

Feeding cattle stored forage can be challenging. Testing forages gives you a better understanding of what you're feeding cattle in winter when temperatures drop.

Testing total digestible nutrients (TDN) will provide an estimate of the total amount of nutrients that could be digested by the animal. The greater the TDN value, the more energy cattle get from forages.

Forage intake is another consideration. Cows will likely spend less time grazing as temperatures decline. Less grazing time results in reduced forage intake which makes it challenging to meet cow energy requirements. Feeding cattle in winter with low-quality hay might not be enough to offset reduced forage intake.

Once you know forage nutritional value and assess intake levels, monitor cow body condition score (BCS) and temperature to identify cow energy requirements.

EVALUATE COW NUTRITIONAL REQUIREMENTS.

A cow's energy requirement, or TDN, increases by 1% for every degree below the LCT as a rule of thumb.

However, cow body condition scores impact nutritional requirements. A cow in a BCS 5 needs 30% more energy to maintain body condition than a cow in a BCS 6 at 32 degrees. The same principle holds true as BCS decreases below 5.

A third trimester 1300-pound cow requires 13 pounds of TDN at 32 degrees. However, at 0 degrees the same cow needs an additional 4 pounds, or roughly 17 pounds of TDN. For comparison, the temperature drop means the same cow now requires 8 more pounds of 50% TDN hay.

continued on page 2

continued from page 1

SEPARATE THIN COWS.

Thin cows mixed with the rest of the herd probably won't get the nutrition they need to maintain or gain body condition. Separate thinner cows – young or old – to help take off feeding pressure. Once separated, make sure cows have plenty of forage and access to cattle mineral and cattle supplements.

If you can't separate thin cows, feed free-choice cattle supplements like a protein tub to give those cows access to feed at all times. Free-choice cattle supplements also provide a less competitive atmosphere than group-feeding protein cubes or hand-fed feeds.

PROVIDE CATTLE MINERALS AND SUPPLEMENTS.

Cattle mineral is vital during cold weather because it impacts a cow's metabolic process. If cows are short on mineral, their metabolism will slow down. Once metabolism slows, the cow isn't producing as much heat, and she may start losing body condition score.

Providing cattle mineral and cattle supplements can also lead to better forage digestibility. A cow's rumen microbes have mineral requirements and can also benefit from supplementation. Supplementing ramps up rumen microbes so they can digest more forage. The microbes can also get 25 or 30 percent more energy out of the forage they're eating.

KEEP A CLEAN ENVIRONMENT.

While wintering cattle, the environment tends to be muddy. Mud reduces the insulation factor of a cow's hair coat, and a cow's lower critical temperature goes up as a result. For instance, if a cow is clean and dry, she may be okay down to 5 degrees Fahrenheit. If a cow is dirty, her lower critical temperature may go up to 20 degrees Fahrenheit.

Give cows plenty of space and move hay rings and feeding stations to limit the creation of muddy areas. The cleaner cows stay, the better insulation their hair will provide.

BREAK ROUTINE.

We tend to feed cattle on a routine. We put out a set amount of cattle feed per day because we think that's what the herd should need. But, pay close attention to temperature and watch cattle closely.

When you know it will be cold for the next few days, increase the feed offered at least 24 hours in advance to give cows a head start. Feeding cows after the storm is helpful, but the impact is greater when they are fed before.

Elizabeth Backes-Belew & Ted Perry

ITCHING AND RUBBING IN YOUR HERD? LICE TREATMENT MAY BE NECESSARY.

Cattle lice infections can affect the health and performance of our cows and stocker cattle during the winter months. This time period generally ranges from December through March.

RANCH LOSSES

The USDA has estimated that livestock producers lose up to $125 million per year due to the effects of lice infestations. Not only can they be the cause of direct animal performance losses, but also increases wear and tear on facilities and fences. The direct losses to cattle come in forms of decreased average daily gains (documented 0.25 pounds per day reduction in growing calves), skin infections and potentially blood loss and anemia.

TWO TYPES OF CATTLE LICE

There are two different types of lice that infect cattle. Biting lice feed on the skin and secretions on the outside of the animal. The other type is known as sucking lice. These species are blood feeders and pierce the skin.

Both types of lice spend their entire lifecycles on the cattle hosts. Off of cattle, they survive very poorly and generally only last a few days. However, they can live up to 10 days off-host in the right environment, leading to reinfection in groups of animals.

It is important to note that lice are host species-specific. This means that cattle lice cannot affect people, horses or any other species.

In general, every herd has some level of lice infestation. Lice are carried from season to season by a small percentage of the herd that acts as reservoir hosts. Adults lay eggs on the hair of infected animals. The overall lifecycle for an egg to mature into an adult and lay eggs is roughly 28 days. Most females lay one egg per day.

LICE SYMPTOMS

Clinical signs of lice infected cattle generally begin with constant rubbing and scratching within the herd. Fences, posts, water troughs, trees and any other stationary object could be subject to damage from this rubbing. As the infection and irritation continue, large hairless patches will become evident on animals.

Further diagnosing the issue beyond the clinical signs requires seeing the adult lice on the skin. Parting the hair will reveal the lice. They are very small but can still be seen. They are roughly the size of a grain of sand. The economic threshold for treatment is roughly 10 lice per square inch.

LICE TREATMENT

There are several options when it comes to the treatment of lice in cow herds. One option is the macrocyclic lactone class of endectocides. Examples of products in this class include ivermectin, doramectin, eprinomectin, and moxidectin.

These products come in pour-on and injectable formulations. Macrocyclic lactones treat internal intestinal nematodes, but also work on external parasites such as lice. It is important to note that the injectable formulations do not work on biting lice since they do not blood feed.

These products are most often used on a herd basis at the end of summer grazing going into winter. Even with herd treatment in the fall, later season lice infections can still occur. This can be due to fence line contact with other animals, or the introduction of new animals.

continued on page 4

continued from page 3

The other option is topical treatments that are non-systemic. These products are typically pyrethroid products similar to what is commonly used to control horn flies during the summer months. These products are very effective against the adult lice but do not affect the larvae or eggs. Retreatment is often indicated 14 days after initial treatment.

There is a product available that is a pyrethroid in combination with an IGR (insect growth regulator) that not only works very well against the adults but also works against the eggs and larvae. The use of this particular product eliminates the need to retreat in 14 days.

Since these topical formulations kill lice by contact, it is extremely important to apply them appropriately to cattle. Most formations call for the pour-on to be applied with full coverage on the topline of animals, from poll to the tailhead.

When treating cattle, it is also important to treat the entire group. Missing one animal could serve as the reservoir for reinfesting the entire herd. The same thought should be given to new additions to the herd from an outside source. Basic biosecurity such as treating and segregating new additions for 30 days is not only good to reduce the risk of lice, it is also a great tool in decreasing the introduction of other diseases.

A.J. Tarpoff, Kansas State University

BEEF RISK MANAGEMENT 5 RISK MANAGEMENT TIPS TO KEEP YOUR BEEF OPERATION IN THE BLACK.

As price and market volatility continues for beef cattle, it's important to have a solid risk-management strategy. Here are tips for managing those risky times from experts across the beef industry. From marketing tips to managing wellness, these ideas and insight could help your operation stay in the black.

1. MANAGE THE BALANCE SHEET. Margin operators in the cattle business — stocker operators and cattle feeders — have plenty of recent experience trying to figure out how to earn as much or more revenue with fewer head, relative to equity levels. Now, Sterling Liddell, RaboResearch global senior data analyst, says, cow-calf producers need to focus more intently on capital efficiency: getting the most out of every dollar of equity placed at risk. There are different equations used by different industries at different times to get at capital efficiency, aimed at output relative to the capital required to maintain that output at a specific level. Examples are return on capital employed (earnings before interest and tax/ capital employed) and asset turnover ratio (gross farm income/ average total farm assets). One way or the other, the notion is to understand if dollars invested are working for you — and how hard. These measures can help ferret out whether a current enterprise should be continued, altered or discontinued.

ALONG WITH CAPITAL EFFICIENCY, LIDDELL CITES THESE AS COMPONENTS OF EFFICIENCY-DRIVEN STRATEGIES:

Planting discipline. Planting acreage up to, but not exceeding the point where marginal costs equal marginal profits. For cow-calf producers, aside from thinking of this in terms of cows and heifers retained, Rabobank Senior Animal Protein Analyst Don Close points out this takes on different shades, given the slower inventory turnover. But you get the idea.

Price realization. Coordination of merchandising and hedging activities to maximize the price per bushel harvested. Moreover, no cow-calf producer must be a simple price-taker. Never mind the opportunities to qualify calves for multiple branded programs through management — all producers have the opportunity to seek more bids for their calves.

2. FOCUS ON HERD WELLNESS. Besides paying too much for calves, one of the most challenging risks in the stocker business is maintaining calf health and performance. "When we manage for wellness, fewer animals get sick and fewer non-sick animals are treated," explains Robin Falkner, a Zoetis technical services veterinarian who works with Timberlawn Farm, Paris, Ky., BEEF magazine's 2016 Stocker Award winner. "This reduces stressful interactions with starting groups and frees up personnel time to focus on husbandry and stockman activities."

continued on page 5

continued from page 4

"We can easily create self-perpetuating dynamics in feeder calves, where the more we pull and treat the more we pull and treat. Conversely, the fewer we pull and treat, the fewer we pull and treat. The reason is that pulling and treating is stressful to cattle and people, puts selection pressure on our treatments, and steals time from beneficial management and husbandry activities."

Along with focusing on how to reduce the number of sick cattle — rather than finding the sick ones — in a forage-based operation, it also requires focusing on the next turn of cattle as well as the current one.

"The secret is to manage outcomes in both current and future groups simultaneously. When we get that right, things get better and better over time," Falkner explains. "By focusing on creating easily identified wellness outcomes instead of finding sickness, a 'stockmanship' vs. 'doctor' mindset predominates management."

3. RETAIN OWNERSHIP. "Retained ownership of calves and placing them on feed provides an opportunity to expand a producer's risk management and possibly take advantage of bounces in the market," says Derrell Peel, Oklahoma State University Extension livestock economist. Peel says producers may be better off holding calves a few months longer to increase profit potential. "Despite today's lower grain prices that normally prompt feedlots to buy lighter-weight cattle, they've been trying to buy them as big as they can," Peel says. "The result is little difference between markets for 550-pound steers and 750-pound steers."

He says prices were within about $10 per cwt for 5-weights and 7-weights sold through Oklahoma City markets in mid-August, 2017. "However, there was about a $20 per cwt drop in prices for 550-pound steers compared to 450-pound steers," Peel says. "So if the price relationships between the 4- and 5-weights and 5- and 7-weights continues into the fall, it may pay to wean and sell calves lighter, or put them on wheat pasture or grass to put on an extra 200 pounds. With the well-established breeding and weaning programs many producers use, taking calves to the heavier weight is likely more attractive." Peel says risk management is important in a retained ownership program. "Live cattle futures prices have remained discounted to cash longer than I would have expected," he says. "That makes it more difficult to lock in a profit through straight hedges. So it may be better to look for a strong cash contract or a basis contract that provides some profit potential."

To protect against a market wreck, buying out-of-the-money put options may be the answer. "This is a disaster insurance policy to cover market shock as a result of disease, global uncertainty or other issues," Peel says. For example, calves placed on feed in late summer would finish at 1,300 to 1,400 pounds early next year. They could be price-protected using the CME February 2017 live cattle contract. February futures were trading at about $115 in mid-August. But ranchers could buy a $106 out-of-the-money put option for just over $2 per cwt. If the market wrecked and prices plunged toward $100 or even lower, they would be protected at $106. At the same time, if the market increased and closed higher, they could take advantage of the upside increase in prices. "Higher-quality cattle should provide higher profit potential," Peel adds. "If cattle are known by the feedlot or a particular packer, they may be more willing to step out and price those cattle at a premium. Producers may also be able to tie into a value-added program."

4. FOCUS ON ERT. "An economically relevant trait (ERT) is one directly associated with a cost of production or a revenue stream," explains Matt Spangler, University of Nebraska-Lincoln cattle geneticist. Think here of a birth weight expected progeny difference (EPD) being an indicator trait for the ERT of calving ease. There is no cost or revenue directly associated with birth weight, but there certainly can be with calving ease. Similarly, an EPD for residual feed intake is the indicator for the ERT of actual dry matter intake. In some cases, Spangler points out a particular trait can be an ERT or an indicator.

continued on page 6

continued from page 5

Consider the yearling weight EPD. For someone retaining ownership, it is an indicator trait for the ERT of carcass weight. For a producer who typically sells yearlings off of grass, weaning weight EPD is the indictor for the ERT of yearling weight. "The point at which you sell is the ERT," Spangler says. "It's unfortunate that we're in a segmented industry where there is not full convergence between what's economically relevant to the industry and what's economically relevant to individual producers."

5. USE PROTEIN SUPPLEMENTS IN FEED. Grasses that don't retain quality and nutrients during winter can be used with a little protein supplement, which is usually cheaper than feeding hay. "Our killing frosts are generally in early October. By November or December, producers are starting to graze stockpiled winter pastures," says Jerry Volesky, range and forage specialist, University of Nebraska-Lincoln. For the first month or two, the forage quality is still fairly good. But by January, it's usually wise to provide a protein supplement, he says. According to Tim DelCurto, Nancy Cameron chair of the Department of Animal and Range Sciences at Montana State University, it can be hard to determine forage quality; it is not always consistent year to year in the same pastures. While at Oregon State University's Eastern Oregon Agricultural Center, DelCurto did research in the Great Basin and some work at the research station at Union, Ore., with fescue. "Winter weather has a profound impact on the quality of stockpiled forage. A cold Arctic blast drives quality down," DelCurto says. "The plant might have had some green through fall, but extreme cold temperatures takes the green right out.

"On the flip side, in a mild winter with some precipitation, some plants will actually green up. The quality fluctuation is dynamic," he says. Producers must adjust their management to environmental variation. "Be strategic in supplementation. Protein is usually the main focus. Alfalfa hay is usually a good supplement for beef cattle on stockpiled forages and can be fed every other day," says DelCurto. This works in locations where you can get hay out to the cattle. If terrain is too rough, you might haul blocks or tubs periodically and let cattle eat those free-choice. "The important thing is to not feed too much. The goal is to just feed enough protein to meet cows' nutritional requirements and optimize intake of stockpiled forage. In studies we did in the Great Basin, we found that 3 to 6 pounds of alfalfa per head [daily] was ideal," he says. "If we fed more, we were just replacing some of the forage they would otherwise eat, with minimal increase in cattle performance."

Farm Progress

EVENTS / CALENDAR

PRE-BLACK FRIDAY SALE
Friday, November 13 (8 AM – 6 PM) &
Saturday, November 14 (8 AM – 5 PM)
Augusta True Value Staunton location – 1205B Richmond Road
Additional information: www.AugustaCoop.com or (540) 885-1265
Huge deals in-store on clothing, boots, power tools and much more!

END OF YEAR FARM SUPPLY SALE
December 1 – 31
All Augusta Co-op store locations
Additional information or list of sale items:
www.AugustaCoop.com or (540) 885-1265

AGRONOMY CUSTOMER APPRECIATION DAY
Friday, February 5 – 11 AM – 2 PM
Augusta Co-op Warehouse – 963 Laurel Hill Road, Verona, VA 24482
Additional information: RSVP to Staci Alger at (540) 885-1265 x 243 or SAlger@AugustaCoop.com

AUGUSTA CO-OP VENDOR DAY (TENTATIVE)
Wednesday, February 24 – 3 PM – 8 PM
Weyers Cave Community Center – 682 Weyers Cave Rd.
Additional Information: www.AugustaCoop.com or (540) 885-1265
Book your 2021 items at drastically reduced rates at our annual vendor day! *In person event pending COVID restrictions, otherwise will function as a booking event.

Year End Farm Sale

December 1-31 • All Augusta Co-op store locations

ENTIRE FARM SUPPLY CATEGORY ON SALE

Featured Brands

Behlen Country Farm & Ranch Equipment

Gallagher

DARE

STAY-TUFF

PARMAK Precision

TARTER Farm and Ranch Equipment

FALL AGRONOMY PLANNING

As we enter into late fall/early winter, weed control in small grain crops should be considered. In a lot of cases, we can do a better job controlling weeds during this period while the weeds are small and have an under developed root system. This can either be done pre-plant or post-plant. Contact us to schedule a time to discuss fall weed control. Additionally, it is time to start planning corn and soybean seed selection. Augusta Co-op carries NK/Enogen, Dekalb & Asgrow, Croplan, Masters Choice (order only) and Pioneer (Bedford location only). Book now with your Augusta Co-op Agronomy Sales Team to ensure you select the hybrid varieties you want at a discounted pre-pay price. Seed corn deadline is November 17 (8% discount) or again January 15 (6% discount). Fertilizer pre-pay December 1 through January 9 (8% discount). Contact Troy Grimm at (540) 885-1265 x 224.

Vendor Day

Wednesday, February 24, 2021
3 PM - 8 PM

Weyers Cave Community Center
682 Weyers Cave Rd
Weyers Cave, VA

The largest farming brands on site in one location! Book your 2021 items at drastically reduced rates at our annual vendor day.

For additional information visit
www.AugustaCoop.com
or call (540) 885-1265.

LAWN MOWER OR SNOW BLOWER NEED SERVICED?

Augusta

FREE PICK UP & DELIVERY
NOW THROUGH DECEMBER 31

Take advantage of this special offer today! Have your lawn mower or snow blower serviced by certified professional service technicians - servicing ALL BRANDS.

Free pick up & delivery within 20 miles of Staunton.

(540) 885-1265 x 223