

Craven County Center

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**Easy Fixes to Decrease Parasite Loads on the Farm**

Written by: Jean-Marie Luginbuhl, Professor and Extension Specialist, North Carolina State University

Submitted by: Eve H. Honeycutt, Extension Livestock Agent- Lenoir and Greene Counties

Submitted by: Margaret A. Bell, Livestock Agent – Craven and Jones Counties

Decreasing parasite loads is every producer’s challenge. Nonetheless, relatively low-cost, easy "fixes" as described below can be readily implemented on every farm.

**Livestock Newsletter of the Southeast Extension District**

**Repair water trough leaks**
The concentration of feces is likely to be high around water troughs, as animals will defecate when coming to drink water. In addition, forage will grow well around leaky water troughs due to the additional moisture. The combination of moisture and a high concentration of feces will most likely result in an area highly contaminated by gastrointestinal tract larvae waiting to be ingested when the lush forage is consumed by the goats or sheep. Such a scenario may potentially affect the entire herd or flock even when gastrointestinal tract larvae concentrations are low in the rest of the pasture.

[****](http://www.flickr.com/photos/baalands/3612417858/)**Fence off moist areas**
Low-lying wet areas, marshes, and stream banks will favor the growth of lush forage and the survival of gastrointestinal tract larvae, and thus will likely be highly contaminated.

**Avoid grassy pens**
Pens used for sorting small ruminants and to protect them from theft and predation will contain a high concentration of feces. Following a few days of rain, forage will grow readily due to the high concentration of nutrients and, at the same time, gastrointestinal tract larvae will hatch and will soon be ready to be ingested by the penned animals grazing the forage.

**Separate animals into groups**
Different classes of animals vary in their nutritional requirements and their susceptibility to gastrointestinal parasites and their effects. Therefore, goats or sheep should be separated into distinct groups to be managed separately according to their specific nutritional requirements and susceptibility to gastrointestinal parasites.

As healthy, well-nourished animals can resist gastrointestinal tract infection better, match the nutritional requirements of the animal groups to the pasture resources of your farm. The animals with the highest nutritional requirements are young, weanlings, and late pregnant and lactating animals. These same animals are most susceptible to gastrointestinal tract parasite infection.

**Subdivide your pastures**
Divide pastures into sub-paddocks using temporary electric fences and always move animals before the pasture becomes shorter than 3 inches. In a grazing program consisting of only one pasture, all animals (most susceptible and less susceptible) will be exposed to the same load of gastrointestinal parasite larvae and will keep re-infecting themselves.

Other benefits of pasture subdivision include the ability to strictly ration pasture feed according to animal nutritional requirements and the need to provide recovery periods for pasture plants. In addition, pasture rest is an effective tool to decrease gastrointestinal parasite larvae on pasture. The length of pasture will vary with climate, season, and rainfall. A good rule of thumb is at least 3 months of rest.

**Decrease stocking rates**
The primary cause of internal parasitism is overstocking, therefore it is important to match animal numbers to pasture size and amount of forage.

[****](http://www.flickr.com/photos/baalands/388717849/)**Graze multiple species of livestock**
Use cattle or horses to graze pastures after goats or sheep. The benefits are three-fold: (1) Cattle or horses will act as vacuum-cleaners and will ingest many gastrointestinal tract parasite larvae that goats and sheep share; in turn, these larvae will die in gastrointestinal tract of the cattle or horses; (2) Goats and sheep will be able to select and graze the pasture of the highest quality to meet their nutritional requirements; and (3) Goats, sheep, cattle and horses differ in the types of forage they prefer, thus leading to a better pasture utilization.

**Keep recently purchased goats or sheep off pasture**
Do not add anthelmintic-resistant worm larvae to your pastures. Recently purchased goats or sheep should first be quarantined on a dry dirt or concrete pen and dewormed aggressively using multiple dewormers before being grazed with the rest of the herd or flock.

**Keep good records and cull aggressively**
Recording the health status of animals through the use of FAMACHA© scores and deworming frequency will allow producers to readily find out which animals are re-infecting their pastures and therefore the rest of their herd of flock.

As a general rule, 20% of animals will shed approximately 80% of gastrointestinal parasite eggs. Culling those worm-susceptible animals is the most important factor that can be used to increase herd of flock resistance and reduce pasture contamination.

**Forage Options for Winter Grazing**

Written by: Paul Gonzalez, Livestock Extension Agent- Sampson County

Overseeding an annual forage has become standard operating procedure for 99% of bermudagrass growers for two main reasons. Many of you need the green forage for your waste management plans and it seems we all need the extra grazing. Without a doubt, the most popular forages to overseed are rye and ryegrass. These are two very different species and for most producers, ryegrass should be avoided.

Rye is one of the cereal grains. Typically, it will produce more fall growth as an overseed than ryegrass. It has a shorter growing season and generally goes to seed in March or April. Rye that is cut for hay in late winter or early spring will show some regrowth but is normally shorter and thinner than what was previously there. Rye should be drilled in 1 to 2 inches deep at a rate of 100 to 120 pounds per acre. Most producers plant based on bushels so 2 bushels per acre is plenty.

This year rye is in short supply and is expensive so producers may be tempted to use ryegrass. Ryegrass is not a cereal grain. If planted as an overseed, ryegrass shows little fall growth. The grass will tend to germinate produce a small plant with three or four leaves, and then waits for spring to really start growing. In the spring, usually about the time rye is going to seed, the ryegrass takes off and produces lots of forage until late May or early June.

Ryegrass that is cut or grazed in late winter will produce as much or more regrowth as the original stand. Cutting or grazing the forage encourages tillering. This leads to shading of the bermudagrass, which weakens and thins the stand. For this reason, ryegrass is not recommended for overseeding bermudagrass pastures and spray fields.

If ryegrass is going to be used, remember these key points. If drill planted, 10 to 20 pounds per acre is sufficient. If broadcast, seeding rates need to be 20 to 30 pounds per acre. If possible, have enough grazing pressure to keep the ryegrass grazed to a one inch stubble height in late March or early April to allow sunlight to reach the emerging bermudagrass. If this is not an option, understand that you will need to mow and remove the ryegrass and then kill the regrowth with a herbicide to prevent shading of the bermudagrass. If you do not remove the ryegrass and only spray to kill it, the resulting thatch will be just as harmful to your bermudagrass as leaving the ryegrass to grow.

Since rye is in short supply, producers may have to consider other options. I haven’t seen any triticale available this year but that doesn’t mean it isn’t. Triticale is a cross between rye and wheat. It produces a little more forage than rye but tends to give up some winter hardiness. Triticale does well in our area and some producers plant this every year instead of rye.

Oats are available and can be used in needed. Oats perform well in this area. The main benefit from oats is the fact that they usually give much more fall growth compared to the other small grains. This means more grazing in late fall and early winter which can give your rye a chance to grow if you plant multiple species. Oats also make much better hay than rye. So if you are planting with the intent of making hay. Oats are the way to go. The down side of oats is they are the least winter hardy of the small grains. If we have a hard winter, you can lose some.

Wheat can be used as forage too. It has good winter hardiness and can produce a lot of forage if fertilized well. Wheat tends to do better if planted early in the season. The later it is planted, the more it will

perform like you see in crop fields. A mixture of wheat and oats would probably work well for a grazing situation. One other note on wheat, some producers will overseed wheat onto bermudagrass fields and then harvest the wheat for grain. This can be done but is very detrimental to your bermudagrass. A better option would be to graze wheat on prepared seedbeds and take the cattle off mid to late January and harvest those fields instead.

One other possible forage is brome grass. Most of you are probably familiar with matua. It can be used but is susceptible to several foliar diseases. There are varieties of brome available now with some resistance. Brome will do well in an overseed situation. It will produce large quantities of highly nutritious forage if fertilized. In addition, if allowed to go to seed in May or June, it will come back again the next year. Seeding rates for brome are 10 to 20 pounds broadcast or 8 to 15 drilled per acre.

**Porcine Epidemic Diarrhea Virus**

 Submitted by: Margaret A. Bell, Livestock Extension Agent - Craven and Jones Counties

 Information from the National Pork Board, July 31, 2013 pork.org

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With all the craziness surrounding the current state of the swine industry due to the Porcine Edpidemic Diarrhea Virus (PEDV), I thought it would be appropriate to get an update directly from the National Pork Board, as well as take a look at the severity of the virus. See the excerpt below from the NPB’s email update. If you have any questions about PEDV, you can contact your local Cooperative Extension Office or the National Pork Board. Their contact information is below.

Welcome to the latest edition of a series of updates from the Pork Checkoff on Porcine Epidemic Diarrhea Virus (PEDV).  PEDV was confirmed for the first time in U.S. swine herds in mid-May. The most recently available report indicates there are 378 confirmed cases of PEDV in 15 states, with most of those in Iowa and Oklahoma.

**Transport Trailers Can Promote Spread of PEDV**

When it comes to preventing the spread of PEDV, strict biosecurity must extend beyond the farm gate—and go all the way to the packing plant. Some new data from research funded by the Pork Checkoff, the National Pork Producers Council and the American Association of Swine Veterinarians, makes this clear as it shows that PEDV can be spread by contamination during transport of pigs to markets.

The objective of the study was to assess the risk that pig-collection points such as packing plants have in promoting an initial outbreak of a novel disease organism such as PEDV in the United States. To do this, researchers estimated the rate of contamination of trailers with PEDV during the unloading process. They collected samples pre- and post-delivery from 669 livestock trailers at seven packing plants.

 Specifically, the study found that:

17% of trailers were contaminated with PEDV before unloading the pigs

11% of trailers that were not contaminated with PEDV on arrival were subsequently contaminated during unloading

**Don't Take Any Chances on Herd Exposure to PEDV:
Practice Strict Biosecurity On and Off the Farm**

Having strict transportation biosecurity is one of the best ways to help stop the spread of PEDV. Talking with your veterinarian about developing transport biosecurity recommendations specifically for your operation is always the best course of action. Here are some general transportation biosecurity points to consider:

* When going to another site or packing plant, wear coveralls and boots when outside of the truck to prevent contamination in the cab of the trailer
* Establish a clean and dirty zone for farm and transport workers to follow during load-in and load-out
* Completely clean, disinfect and dry trailers after use; this is especially important when going to commingled sites like cull depots, packing plants or buying stations
* Cleaning and disinfection involves:
	+ Removal of dirty shavings, manure and other debris from the trailer
	+ The use of a detergent soap can help to break down dried manure and speed up the wash process
	+ After cleaning the trailer, use a disinfectant according to label directions to kill the virus
* Make sure to wash and clean coveralls, boots and other equipment after transporting pigs and before contact with other pigs
* Clean and disinfect the interior of the tractor cab before contact with other pigs.
* Once the tractor and trailer is clean, park in a secure, clean location to dry away from other vehicle traffic.

**Culling Cow Decisions**

Submitted by: Abby Dilley, Livestock Agent - Pender and Onslow Counties

Adapted from Jane Parish, Extension Beef Cattle Specialist, Mississippi State University

Deciding which cows to cull and which cows to keep in the breeding herd impacts future herd performance and profitability. There are many factors to consider when choosing which cows to put on the cull list. The challenge in choosing cows to cull is in identifying the cows that are making the operation moneyand the cows that are costing the operation money.

**Pregnancy Status**

One of the greatest determinants of profitability in a cow-calf operation is reproductive rate. Open (non-pregnant) cows are a drain on resources. They consume feed, forage, and other resources without producing a marketable calf to contribute to expense payments. Cows that are open at the end of the breeding season should be at the top of the cull list. Cows that calve outside of a controlled calving season are also potential culls, particularly when feed and forage supplies are running short. Late calving cows should be scrutinized as well, because they have less opportunity to breed back to stay within a controlled breeding season.

**Poor Performance**

Poor calf performance is usually the result of inferior genetics, poor dam milk production, calf illness, or a combination of these factors. Cow passing on inferior genetics to their calves for economically important performance traits and cows with unacceptably low milk production are potential culls. If poor calf performance is due in large part to calf sickness and not associated with the dam, then the dam may still have a productive future in the herd.

While herd genetic improvement is largely dependent on sire selection, the dam contributes half of the genetics to the calf. Culling cows with EPD values that do not compare favorably with breed or herd averages for economically important traits contributes to herd genetic improvement. Many breed associations publish breed averages and percentile ranking tables for EPDs for active dams.

**Age**

The productive lifetime of a beef cow is variable. As long as teeth, udders, feet, and legs are sound, many older cows are often still able to perform well. Breed composition and production environment can play a role in longevity. Florida research on Brahman-influenced cows indicated that there was consistent rebreeding performance through about 8 years of age and a decline in reproductive performance after 10 years of age.

An even steeper drop in reproductive performance occurred in cows beyond 12 years of age. That is not to say that individual cows will not be productive through an advanced age though. Ideally, cows should be culled for advancing age prior to a sharp decline in reproductive or maternal performance. In addition, with an emphasis on herd genetic improvement, younger beef females are often genetically superior to older cows.

**Mouth**

Teeth wear with normal use over time. Gritty feeds and forages accelerate tooth wear. Soil type can affect how long teeth remain sound, with sandy soils typically being harder on teeth. Cows can eventually wear their teeth down to a stage where grazing effectiveness is severely impacted. This results in poor body condition despite adequate available nutrients. “Smooth-mouthed” cows have teeth worn down to the gums. Cows may also lose teeth at any age from being knocked out by blunt force or from gum disease or infection resulting in a “broken-mouthed” condition. These cattle may dribble feed and have a hard time consuming adequate quantities of feed or forage. Lumpy jaw is another condition of the mouth that can negatively impact grazing ability. Annual inspection of the teeth and mouth during routine cattle working is recommended.

**Udder**

Udder soundness affects milk production, milk consumption, and ultimately calf weaning weights. Proper udder attachment in a beef female is important for a long, efficient, productive life. A sound udder should be firmly attached with a strong, level floor and four properly formed teats proportional to body size. Weak udder suspension results in pendulous udders that are difficult for a sucking calf to nurse. Balloon or funnel-shaped teats are also difficult to nurse and may hurt calf milk consumption and weaning weight. Balloon teats are also sometimes an indication of past mastitis (a bacterial infection of the mammary tissue). The udder should be healthy and free of mastitis in all four quarters for good milk production.

**Structural Soundness**

Structural soundness is important from the standpoint of functionality. Structural problems subject the joints to excessive wear and stress that can eventually hamper mobility. Cows that have difficulty moving around the pasture may be less active grazers. Cows need to be sound enough for effective grazing and successful pasture breeding. Condition and performance of structurally unsound or crippled cattle often goes downhill. Obvious structural defects can decrease the market appeal of an animal as well.

Lameness is a major reason for culling cattle. Lameness leads to decreased performance, decreased reproductive efficiency, weight loss, and increased treatment costs. A study of five large western feedlots showed that lameness accounted for approximately $121 loss per lame animal. Many conditions can be the cause of lameness in cattle including foot rot, laminitis, joint injury, and fescue toxicosis.

**Health Problems**

Cancer eye can impair a cow’s ability to raise her next calf. Culling is often the best option once an affected cow has weaned her calf. Another health issue that may determine if a cow should be culled from the herd is Johne’s disease. Johne’s disease is a chronic, incurable, contagious infection of the intestinal tract.

Calves usually become infected when they nurse udders that are contaminated with infected fecal material or when they are housed in contaminated pens or pastures. Johne’s disease causes severe, explosive diarrhea and weight loss in adult cattle leading to enormous production losses in infected herds. Since there is not an effective treatment or cure for Johne’s disease, the best way to keep infected cows from spreading it to others in the herd is to cull them. Blood or fecal culture tests may be performed to identify infected cattle.

Prolapse is another potential health concern that may necessitate culling. A vaginal prolapse occurs when vaginal tissue protrudes through the vulva where it is exposed to the outside environment, potential injury, and disease-causing agents. Uterine prolapse is a condition in which the uterus is pulled through the birth canal with the calf or afterbirth. Vaginal prolapse typically occurs during late gestation as calving approaches, while uterine prolapse usually occurs at or shortly after calving. Because vaginal prolapses (unlike uterine prolapses) are likely to reoccur and are known to have a genetic component, cows suffering from this condition should be marked for the cull list.

**Disposition**

“High-headed” or “High Strung” cattle are dangerous and should be prime candidates for culling. Culling for unacceptable disposition reduces the risk of injury to both cattle and people. Mississippi State University animal scientist, Dr. Rhonda Vann, has conducted several studies indicating that excitable calves often sacrifice growth performance and Quality Grade compared to calmer calves. Colorado State University studies have also shown that excitable cattle are more likely to produce dark cutter carcasses, which are subject to severe discounts. Because calves inherit a genetic component of temperament and also pick up habits from their dams during the suckling phase, bad attitudes can be propagated within the herd without selection pressure for acceptable disposition.

**Culling Decisions**

Appropriate times to cull cows from the herd depend on the reasons behind the culling. In cases where cows have developed severe health problems, removal from the herd may need to be immediate. In situations where cows are being culled for low performance or other less urgent factors, it often makes sense to wait until after nursing calves are weaned. If market conditions are such that even cows weaning low-performing calves are generating a profit, it may be cost-effective to hold onto these cows in the near term and then market them before they become unprofitable. Production conditions can also influence the best time to remove cows from the herd. During drought or other conditions where forage and feed resources are limited, culling deeper into the herd is often appropriate.

Cull cow receipts generally account for 15 to 20 percent of gross income in beef cow-calf operations. Cull cow price levels and seasonal trends should be taken into consideration when deciding when to sell cull cows. When cull cows prices are trending upward, it is often advantageous to wait to market cows if the increasing values can cover added production expenses from holding over cull cows. It may also be advantageous to retain cull cows until weight and body condition can be added. Unlike feeder cattle prices, cull cow prices generally increase on a per pound basis with increasing cattle weights. If cull cow prices are trending downward, however, it may be advisable to market cull cows in a timely manner before more money is invested in cow maintenance, particularly if this investment will not likely be recovered.

Cow culling strategies impact both calf quantity and quality and, when planned and implemented effectively, can greatly enhance the profitability of a cow-calf operation. Making informed culling decisions helps maintain a high level of herd performance. Even favorite cows should be subject to a systematic culling process. “Ole Bessy” may be a sweetheart, but ask yourself how much you are willing to pay to keep her. Contact your local county Extension office for more information on cow culling or related topics.

Forage Management Tips

**October**

* Finish using summer grasses before grazing the cool season ones.
* Overseed bermudagrass and other warm season grasses with winter annuals such as rye if you haven't already done so.
* Sample soils to be overseeded or planted next spring so the limestone can be applied early enough to react; two to four months are required for lime to effectively neutralize soil acidity.

**November**

* To improve feeding efficiency, test forages before winter feeding begins.
* As winter feeding begins, separate the herd into lactating and dry cows so the best quality pastures and hay can be fed to the cows with nursing calves.
* Do not graze fall-planted perennial pastures, such as tall fescue/ladino clover, until growth reaches 6 to 8 inches.
* Winter annual pastures that were planted early (September) may be responsive to an additional application of nitrogen (30 to 50 lbs per acre).
* Bermudagrass should have 3 to 4 inches of growth to serve as insulation against winter damage.

**December**

* Avoid overgrazing by feeding hay on pasture or restricting acres available to animals.
* Feed hay stored outside before using hay that is stored inside.

Calendar of Events

\*\*RSVP FOR ALL EVENTS BELOW TO THE CRAVEN COUNTY COOPERATIVE EXTENSION OFFICE AT

(252) 633.1477 UNLESS OTHERWISE NOTED\*\*

Tuesday, October 1, 2013: Wayne County Fair Skill-A-Thon Competition, 4:30 PM. Contact Margaret to sign up.

Sunday, October 13, 2013: Jones County Bits & Spurs 4-H Horse Club Meeting, 2:00 PM at Bay Branch Stables in Pollocksville, NC. Contact Suzanne Richey at getonthehorse@gmail.com for more information about the club.

Tuesday, October 22, 2013: Coastal Carolina Agricultural Fair, 4-H Mock Goat Show at 6:30 PM and 4-H Goat Fashion Show at 7:30 PM, Both at the Red Livestock Barn, Craven County Jaycees Fairgrounds on Hwy 70. For more information contact Margaret.

Thursday, October 24, 2013: Coastal Carolina Agricultural Fair, 4-H Mock Lamb Show at 6:30 PM and 4-H Lamb Fashion Show at 7:30 PM, Both at the Red Livestock Barn, Craven County Jaycees Fairgrounds on Hwy 70. For more information contact Margaret.

Saturday, November 2, 2013: Farm-City Day, 10:00 AM - 2:00 PM, New Bern Farmer's Market, Tryon Palace, and NC History Center. For more information contact Margaret.

Saturday, November 2 - 3, 2013: NC State Fair Judging Competition (Saturday) and NC State Fair Skill-A-Thon Competition (Sunday), NC State University's Beef Unit. Contact Margaret for more information.

Saturday, November 16, 2013: Southeast Bull Expo & Sale, Clinton, NC. Contact Adam G. Ross at hossrosscattlecompany@gmail.com for more information.

Monday, November 18, 2013: Craven / Jones Livestock Association Meeting, 6:30 PM, Pot Luck, Core Creek FWB Church, Cove City. For more information, contact Margaret.

Thursday, November 21, 2013: Southeast Regional Pork Conference, 9:00 AM - 4:00 PM, Lunch is on your own this year, Onslow County Cooperative Extension Office. Contact Margaret for more information on fees and to register.

Tuesday, December 3, 2013: Eastern Carolina Cattlemen's Conference, Sampson County Agri-Expo Center, Clinton, NC. Contact Paul Gonzalez for more information at Paul\_Gonzalez@ncsu.edu.

Thursday & Friday, December 5 - 6, 2013: Craven County Ag Week, New Bern Farmer's Markets. NEED VOLUNTEERS. For more information, contact Margaret.

Tuesday - Thursday, December 10 - 12, 2013: Certified Crop Advisor Training (CCA), Onslow County. Contact Melissa Huffman for more information, fees, and to register at Melissa\_Huffman@ncsu.edu.



**Voluntary Agricultural District** **(VAD Program)**
\*Craven County agricultural field crop and livestock producers generate $50-70 million dollars of farm sales each year.   Enrollment of lands into farmland preservation programs identifies and preserve existing farmlands.  Additionally, it adds additional protection for the producer and landowner against nuisance lawsuits, notifies potential new landowners of agricultural activities and provides a priority ranking or reduced cost share for some USDA programs.  Please consider enrolling lands into either the Voluntary Agricultural Districts or Enhanced Voluntary Agricultural Districts if you are a landowner. The Craven Soil & Water Conservation District is accepting applications for enrollment into the Voluntary Agricultural and Enhanced Voluntary Agricultural Districts.  Applications can be obtained from the Craven County Soil & Water Conservation office, our office or downloaded from our web page (http://craven.ces.ncsu.edu/).  Cost of enrollment is $76.  For more details, visit, http://craven.ces.ncsu.edu/content/VAD\*

We’re on the web!

http://craven.ces.ncsu.edu/

http://jones.ces.ncsu.edu/

http://cravenjoneslivestock.blogspot.com/

http://nchorse.blogspot.com/



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**Fencelines** is a quarterly newsletter written by a team of Southeast District Agricultural Agents for livestock producers of Southeastern North Carolina. For more information on material and events presented in this newsletter, contact your local agent and Cooperative Extension office at:

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