



Volume XV
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2016 Test Challenges Bucks

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The 2016 Western Maryland Pasture-Based Meat Goat Performance Test proved to be the toughest challenge ever, with all-time high fecal egg counts and confirmed resistance (of worms) to all four dewormer classes.

One hundred and forty-two goats were consigned test. One hundred were accepted. Ninety-seven were delivered to the test site on June 23-24. Ninety-six started the test on July 7. Eighty-three (83) completed the test on September 15. A few goats died and several were removed for failing to adapt to test conditions.



(Top Performing Buck)

Upon arrival, the goats were sequentially dewormed with anthelmintics from each drug class: albendazole (Valbazen®), moxidectin (Cydectin®), and levamisole (Prohibit®). Before and after fecal egg counts were compared to determine the efficacy of the sequential dosing. For the fifteen goats that had fecal egg counts >1000 epg, the sequential dosing reduced egg counts by an average of 84 percent. If the odd data point is eliminated (one goat had only a 1% reduction in FEC), fecal egg count reduction was 90%. Several goats with low initial fecal egg counts experienced substantial increases in fecal egg counts after the sequential dosing, indicating a resistant population of immature worms upon arrival.

While on test, the bucks were evaluated for growth performance (ADG), parasite resistance (FECs), and parasite resilience. They were handled every two weeks to determine body weights, FAMACHA®, body condition, coat condition, dag, and fecal consistency scores.

ID	Consigner	State	Weight	ADG	Avg. FEC	High FEC	Avg FAM	High FAM	# Tx	Grade
687	Weber	IL	67.6	0.240	775	1700	1.0	1	0	2.00
699	Yutzy	OH	61.8	0.216	646	1250	1.7	2	0	1.50
661	Peters	NC	52.6	0.153	364	920	1.8	2	0	2.25
648	Murphy	NJ	78.8	0.170	830	1650	1.0	1	0	1.50
616	Davis	MO	70.4	0.146	784	1525	2.0	2	0	1.75

(Five Top Performing Bucks)

(Continued on page 6)

Identifying parasite resistant bucks has always been the trademark of the Maryland test.

No Test In 2017

The Western Maryland Pasture-Based Meat Goat Performance Test will not be held in 2017. After 11 years of the test and 13 years of small ruminant grazing, the test site will be rested. All of the vegetation has been killed, and the site will be planted in row crops in 2017. It will be replanted in forages next fall (2017)

The present test has run its course. High levels of parasite infection, coupled with lack of efficacy of the anthelmintics (dewormers) has resulted in too many goats being unable to adapt to test conditions.

A new test will be considered for 2018. Many changes would be necessary, including 1) lower stocking rates (fewer goats); 2) selection of out-of-state goats based on a lottery system; 3) strict enforcement of minimum weight requirement (40 lbs.); 4) grass-free laneway; 5) different supplementation strategy; and 6) removal of sheep from the grazing system.

Dealing with the high level of anthelmintic resistance is a more difficult challenge to overcome. Requiring a fecal egg count reduction of 95% or more (the research standard) would result in few goats remaining in the test. Goats with zero or low egg counts would also have to be eliminated if their egg counts went up significantly after the sequential deworming, as this is indicative of resistant immature worms.

The dewormer resistance doesn't mean a goat can't be effectively treated, as combination treatments usually alleviate clinical symptoms (anemia and bottle jaw), but the drug resistance makes it difficult to get valid fecal egg count data. Parasite resistance has always been the trademark of the Maryland test.

Comments and suggestions pertaining to the test are always welcome. Send to schoen@umd.edu.

Goat Performance & Carcass Contest

A Performance & Carcass Contest was held in conjunction with the 2016 Western Maryland Pasture-Based Meat Goat Performance Test. Anyone who consigned a buck to the test was eligible to enter a goat in the contest. Fifteen goats were entered by 15 consigners from 12 states. The goats were all Kiko. There were 14 bucks and 1 wether entered.

During the contest, the goats were fed a diet of hay and grain. They were not fed for maximum gain. A mostly grass hay was offered ad libitum. Whole barley was fed once daily. After a 13-day adjustment period and 87 day feeding period, the goats were harvested to collect carcass data. The carcasses were deboned and separated into lean, fat, and bone.

Dressing percent was determined by dividing hot carcass weight by live weight. The goats were weighed shortly before slaughter. Yield was determined by dividing pounds of lean (meat) by live weight. Lean gain (per day) was determined by multiplying the average daily gain (lbs/day) by the yield (%).

The Grand Champion Goat was a buck entered by Angie Loos from Illinois. It excelled in all performance categories and carcass measurements. The 98-lb. Kiko buck gained 0.402 lbs. per day. It dressed 50 percent. Its rib eye measured



Rank	Consigner	Weight	ADG, lb/d	DP, %	% Lean	Yield, %	Lean gain, lb/d
1	Loos	98.0	0.402	50.0	59.6	28.6	0.115
2	Gamby	80.0	0.276	46.3	59.4	26.0	0.072
3	Winingear/White	61.0	0.230	47.5	58.3	26.8	0.062
4	Smith	68.0	0.172	47.1	58.4	26.2	0.045
5	Larr	74.0	0.098	48.6	58.0	27.4	0.027

(Continued on page 9)

Do You Have A Veterinarian-Client-Patient Relationship (VCPR)

The Veterinary Feed Directive (VFD) is a new rule by FDA that goes into effect January 1, 2017. Certain drugs (antibiotics) that are put in the feed (e.g. tetracyclines) will require a veterinary feed directive (written order). Other drugs that are put in the drinking water (e.g. sulfadimethoxine) will transition from OTC (over-the-counter) to prescription. In both cases, a VCPR will be required in order for the veterinarian to prescribe the drugs and the producer to administer the drugs via the feed or water.

VCPR stands for Veterinarian-Client-Patient Relationship. A VCPR is defined by the state regulatory board and federal law. A valid VCPR exists when:

(1) A veterinarian has assumed the responsibility for making medical judgments regarding the health of (an) animal(s) and the need for medical treatment, and the client (the owner of the animal or animals or other caretaker) has agreed to follow the instructions of the veterinarian;

(2) There is sufficient knowledge of the animal(s) by the veterinarian to initiate at least a general or preliminary diagnosis of the medical condition of the animal(s); and

(3) The practicing veterinarian is readily available for follow-up in case of adverse reactions or failure of the regimen of therapy. Such a relationship can exist only when the veterinarian has recently seen and is personally acquainted with the keeping and care of the animal(s) by virtue of examination of the animal(s), and/or by medically appropriate and timely visits to the premises where the animal(s) are kept.

Producers who have not established a relationship with a veterinarian are encouraged to do so as soon as possible. A veterinarian will not be able to write a VFD or prescription without a VCPR.

Featured Apps for Sheep & Goat Producers

"App" is short for "application" which is another name for a computer program. Normally, when people talk about apps they are referring to programs that run on mobile devices, such as smartphones or tablet computers.



Goat and Sheep Breeding Calculators

You can use these apps to calculate when your does or ewes will give birth. They are perfect for veterinarians, goat and sheep breeders, animal husbandry students, and animal enthusiasts. All you need to do is select the date of the breeding and the system shows the anticipated kidding or lambing date. The apps are available for IOS and Android devices. They are FREE.

Hay Price Calc

The aim of the Hay Price App is to aid hay buyers in calculating price per ton and to provide cost comparisons of small square, large round, and large square-bales. Hay buyers simply select the bale type, enter in the bale weight and price per bale, and the Hay Price App calculates price per ton, allowing the buyer to compare and choose the most economical hay. This app does not take into account hay quality when determining economics. The app is available for IOS and Android devices and sells for \$0.99.

Live to Cut Meat Calculator

The Live to Cut Meat Calculator app helps livestock producers estimate how the animal will dress (the amount of meat) once slaughtered. The app estimates the average, high and low ratio for the carcass weight, which is determined by the live weight of the animal. The calculator can be used for beef, dairy, hogs or sheep. The app is available for IOS and Android devices and sells for \$6.99.

Are Dewormers Still Effective on Your Farm?

The American Sheep Industry Association's Let's Grow Program provided funding to facilitate testing for anthelmintic (dewormer) resistance on commercial sheep farms in three southeastern states: Maryland, Virginia, and Georgia.

It is a well-known fact that worms have developed resistance to all the dewormers and dewormer classes currently available to sheep and goat producers. Resistance varies by geographic region. It is worse in the Southeast, because this is where internal parasites are most prevalent. It also varies by farm. It is worse on farms that deworm frequently. It tends to be worse on goat farms, as they usually have a greater need for deworming than sheep.

On average, worms have become most resistant to the benzimidazole or "white" class of dewormers which includes fenbendazole (SafeGuard®) and albendazole (Valbazen®). A high level of resistance is also prevalent among the avermectins, which includes ivermectin (Ivomec®), doramectin (Dectomax®), and eprinomectin (Eprinex®). Levamisole (Prohibit®, LevaMed®) is the dewormer most likely to still be effective on sheep and goats farms. Moxidectin (Cydectin®) is also still effective on many farms.

Group	Group	Drug	Tradename	Typical level of resistance*
1	Benzimidazoles	Fenbendazole	SafeGuard®	High
1	Benzimidazoles	Albendazole	Valbazen®	High
2	Macrocylic lactone: avermectin	Ivermectin	Ivomec®	High
2	Macrocylic lactone: avermectin	Doramectin	Dectomax®	High
2	Macrocylic lactone: avermectin	Eprinomectin	Eprinex®	High
3	Macrocylic lactone: milbimycin	Moxidectin	Cydectin®	Moderate
4	Levamisole	Levamisole	Prohibit®, LevaMed®	Lowest

(*Resistance varies by farm and geographic region and may be different than what is reported in this column.)

There are two ways to test for anthelmintic (or dewormer) resistance: the fecal egg count reduction test (FECRT) or the DrenchRite® test. To do a FECRT, you collect a fecal sample (2-4 g) from an animal, deworm it, then collect a second sample 7 to 14 days later. You compare the egg counts (eggs per gram of feces; EPG) between the two samples to determine how effective the drug was. A fecal egg count reduction of 95% is desired. Below 95%, there are resistant worms in the population. Below 95%,

a dewormer may still deliver an effective treatment, but increasingly it will be less effective at killing worms, reducing fecal egg counts, and saving clinically parasitized animals.

The first sample you collect should contain at least 200 EPG. In fact, the data is more reliable with much higher initial fecal egg counts, as 200 EPG is a very low egg count for the barber pole worm. The barber pole worm is a very prolific egg layer. Ideally, you should collect and compare samples from 10 to 15 animals. You need to do this for each drug you want to test. It's also a good idea to collect samples from animals which do not receive treatment (a control group). Doing a fecal egg count reduction test on one animal or a few animals will give you a general idea if the drug works, especially if clinical signs are improved, but it will not tell you definitively if resistant worms are present.

There are several advantages to the fecal egg count reduction test. Producers can learn to do their own fecal egg counts. All that's really needed is an inexpensive student microscope (100x power) and a McMaster egg counting slide. Most veterinarians and diagnostic labs can perform the test. Fecal egg counts can also be used to test the effectiveness of combination treatments, natural remedies, and other management practices aimed at reducing internal parasitism. Fecal egg counts can be used to identify resistant and susceptible animals.

For our Let's Grow Project, we opted to go with the DrenchRite® test. The DrenchRite® test (or larval development assay/LDA) is a laboratory test that determines resistance to all four dewormer groups simultaneously from a single pooled sample of feces. The sample needs to contain at least 400 epg (preferably more) and should be collected from at least 8 animals. When collecting fecal samples for either the DrenchRite® test or FECRT, animals with high FAMACHA© scores (3-5), low body condition scores (<3), and soiled rear ends should be favored. Lambs/kids tend to have higher egg counts than mature animals.

The DrenchRite® uses the same 95% cut-off value to determine the presence of resistant worms. It also identifies, via the larvae, the type of (strongyle) parasites which are infecting the animals. The University of Georgia is the only place that performs the test. The DrenchRite® test is an expensive test (\$450), but well worth the money if animals are dying from infective treatments or suffering from marginally effective treatments.

Recommended Vaccination for Clostridial Diseases

There are many diseases for which sheep and goats can be vaccinated, but there is only one universally-recommended vaccine, and it is for the clostridial diseases that commonly affect small ruminants.

Clostridial diseases are fatal diseases that strike ruminant livestock suddenly, often causing death before any clinical signs are observed. Clostridia (bacteria) are widespread in the environment. They are normally found in the soil and feces. They are also present in the digestive tract and tissues of healthy animals. For these reasons, vaccination is the best way to prevent disease outbreaks or random losses.

Two clostridial vaccines are commonly used in sheep and goats: a 3-way vaccine called CDT; and an 8-way vaccine with the trade name Covexin®-8. CDT protects healthy sheep and goats against *clostridium perfringens* type C and D (enterotoxemia or overeating disease) and *clostridium tetani* (tetanus). Covexin®-8 protects against these same diseases, plus several additional clostridial diseases, including blackleg. The 3-way vaccine is all that's usually needed on most sheep and goat farms in the Mid-Atlantic region.

Pregnant ewes and does should be vaccinated with the CDT toxoid or Covexin®-8 during their last month of pregnancy, but at least two weeks before they are due to birth. Females that have never been vaccinated should be vaccinated twice in late pregnancy, 3 and 6 weeks before parturition. Rams, bucks, and wethers should receive an annual booster for CDT.

Lambs and kids receive passive, temporary immunity to CDT when they consume colostrum. They must consume adequate colostrum for this to happen. Colostral immunity will start to wane after about six weeks. Thus, lambs and kids from vaccinated dams should receive their first CDT vaccination when they are 6 to 8 weeks of age, followed by a booster 3-4 weeks later.

Lambs and kids from unvaccinated dams should receive their first CDT vaccination when they are 3-4 weeks of age, followed by a booster 3-4 weeks later. Earlier vaccinations are not likely to be effective, due to many factors, including the immature immune system of young lambs and kids.

The tetanus antitoxin should be administered at the time of docking, castrating, and disbudding, as lambs and kids from unvaccinated dams will lack protection (from tetanus). An antitoxin provides immediate, short-term immunity, whereas the toxoid provides longer-lasting immunity, but takes time and a second shot to complete the immune process.

Purchased feeder lambs and kids, including those purchased as 4-H or FFA projects, should be vaccinated twice for *clostridium perfringens* type D ("classic" overeating disease). Any animal whose vaccination status is unknown should be vaccinated, twice the first year. The CDT vaccine has a 30 day meat withdrawal.

Some experts believe that CDT vaccinations are not as effective in goats as sheep. Of course, no vaccinations will be effective if they are not properly administered. It does without saying that you should follow the instructions on the vaccine bottle. Proper aseptic technique should be followed when injecting vaccines. The CDT vaccine is given under the skin (subcutaneously, SQ, Sub-Q).



2016 Test Challenges Bucks (continued from page 1)

FAMACHA® scores and the Five Point Check® were used to make deworming decisions. Weight gain and fecal egg count were also factored into the decision to deworm goats with FAMACHA® scores of 3. It was often necessary to administer at least two dewormers to alleviate the symptoms of clinically parasitized goats. Fecal samples were collected from each buck every two weeks to determine individual fecal egg counts. At the end of the test, the goats were evaluated for reproductive soundness and structural correctness.

Pooled samples were collected twice for larvae ID and the DrenchRite® test. Upon arrival, seventy percent of the worms in the goats were *Haemonchus contortus* (barber pole worm). By August 3rd, the proportion of barber pole worms had increased to 95 percent. A DrenchRite® test showed that the worm population was resistant to all four dewormer groups: benzimidazoles (SafeGuard® and Valbazen®), avermectins (Ivomec®, Dectomax®, and Eprinex®), moxidectin (Cydectin®), and levamisole (Prohibit® and LevaMed®).



(Top five buck)

Criteria	GOLD	SILVER	BRONZE
Avg. FEC	<500 epg	<750 epg	<1000 epg
High FEC	<1000 epg	<1500 epg	<2000 epg

Top performers

John Weber from Illinois had the top-performing buck in this year's test. His buck excelled in all performance categories. Other top-5 performing bucks were consigned by Steven Yutzy (Ohio), P.J. Murphy (New Jersey), David Peters (North Carolina), and Thomas Davis (Missouri). Davis and Yutzy were first-time consigners to the test. Murphy, Peters, and Weber have consigned to the test for 5, 4, and 3 years, respectively. Weber was the top-consigner (tied) in 2013 .



(most resistant buck)

The second five in the top-10 included bucks consigned by P.J. Murphy, Jarred Dennison (Kentucky), Patricia Larr (Indiana), Richard Gamby (Ohio), and Angie Loos (Illinois). Richard Gamby was a first time consigner. All other consigners had previously consigned bucks to the Maryland test. The top consigner award went to the consigner with the three best bucks. This year's top consigner was Jarred Dennison from Kentucky. Dennison also had the top-gaining buck. It was the 7th year Dennison consigned bucks to the test. He has had top-performing bucks in the past tests.

Parasite resistance

Only five bucks met the traditional Gold, Silver, and Bronze standards of performance for parasite resistance. Only one buck met the Gold standard.

The most resistant buck in this year's test was a buck consigned by David Peters from North Carolina. Peters also had the most resistant buck in 2015. In September, this buck brought \$4000 at the Bluegrass Performance Invitational Sale in Frankfort, Kentucky.

New Resources

Lambulator Cut-Yield Calculator

The LAMBULATOR is a Cut-Yield Calculator for the Lamb Direct Marketer. It has been designed with the small direct marketer in mind. It is easy to understand and use, even if you have no experience with Microsoft Excel. Just plug in your cut weights and prices and let it do the calculating for you. In an instant, it will calculate carcass yield percentages, individual and average net profit per lamb, and your overall gross and net profit. It will even allow you to try different pricing scenarios should your production or marketing costs increase. The Lambulator was developed by Dave Scott, a livestock specialist with NCAT-ATTRA. It is a free download.

<https://attra.ncat.org/attra-pub/summaries/summary.php?pub=548>

Goat Book

“Goat Book” is a web based application along with a mobile app to help Goat producers manage their goat data. “Goat Book” allows you to track kidding data, and generate reports by bucks or entire kid crop. “Goat Book” will allow you to enter breeding information on your doe herd and project birthing dates. This application will generate individual doe productivity by keeping annual sale prices for your kid crop. The “Semen Tank” function allows you to manage your semen inventory. There is a \$15 annual subscription fee. A free 30 day trial is available.

<http://www.goatbook.net/>

Detailed Enterprise Budgets

Detailed enterprise budgets have been developed to help determine the profitability of sheep and goat raising. There are spreadsheets for sheep (meat), sheep (wool), sheep (seedstock), goat (meat), and goat (seedstock). The spreadsheets are password-protected to protect the formulas and structure of the spreadsheets, but can be provided upon request. The Excel spreadsheets can be downloaded for free.

<http://www.sheepandgoat.com/spreadsheets>

Featured Products

Anti-Mating Apron

The Bacchus Johnson Shield is an effective and affordable option for goat and sheep owners. This anti-mating apron works to prevent unwanted breeding and help with urine scald. The Bacchus Johnson Shield simply straps around the waist of your sheep or goat and stays secured for as long as needed. It's weighted in the middle and will center itself on the goat's body as it moves. It is adjustable from 14 to 32 inches.

<http://www.houseofbacchuspetsupplies.com/anti-mating-aprons-s/118.htm>

Callicrate banders

Callicrate banders offer a bloodless, high tension method of castration. In particular, they can be used for delayed castration. They can also be used for docking, horn removal, treatment of prolapses, and other medical procedure requiring ligation, or negation of blood flow. The "Wee" bander can be used on newborn livestock.

<http://www.callicratebanders.com/>

Easi-Milkers

The Udderly Ez Milker™ is a milk and colostrum collection device. It has a trigger operated vacuum pump. It requires no batteries or electricity. The product line includes: a sheep, pygmy, and exotic milker; mare milker, cow milker, and goat and Nigerian goat milker.

<http://www.udderlyez.com/>

More Information On Sheep & Goats Can Be Accessed At:

<http://www.sheepandgoat.com/>

<http://www.acsrpc.org> or wormx.info

<http://mdgoatquest.blogspot.com>

<http://www.sheep101.info/>

<https://www.facebook.com/MDSmall>

<http://issuu.com/mdsheepgoat>

<http://mdsheepgoat.blogspot.com>

<https://www.youtube.com/c/MarylandExtensionSmallRuminantProgram>

No Benefits to Removing Tapeworms

In 2012 and 2013, an experiment was conducted on a commercial sheep farm in the Northern Tablelands of New South Wales, Australia, to test the hypothesis that the growth rates of meat-type lambs would not be affected by the removal of tapeworms (*Moniezia* spp.).

In 2012 and 2013, 93 and 85 lambs, respectively were randomly allocated to two treatment groups. One group (Prazi) was treated with praziquantel, levamisole, and abamectin to remove tapeworm and gastrointestinal nematode infection (GIN) while the second group (Control) was treated with levamisole and abamectin to remove only GIN

Tapeworm prevalence and egg counts of Control lambs ranged from 25 to 77% and 7 to 730 eggs per gram (epg), respectively and were significantly reduced in Prazi lambs, following treatment, at all time-points in both years. Pre-treatment GIN worm egg counts ranged between 1684 and 3368 epg with *Haemonchus contortus* being the dominant species. Post-treatment GIN worm egg counts were similar between Prazi and Control groups, except on one occasion (Day 65, 2013) when GIN worm egg counts were expectantly higher in Control lambs.

No significant difference in growth rates were observed between treatment groups in either year with overall group mean daily body weight gains being 95 and 81 g/day (0.18 and 0.21 lb/d) in 2012 and 132 and 134 g/day (0.30 and 0.29 lb./d) in 2013 for the Prazi and Control groups respectively. This experiment confirmed that removal of tapeworm burdens did not increase growth rates in meat-breed lambs.

Source: Veterinary Parasitology, March 2015



Group	2012	2013
CONTROL	0.18 lb/d	0.30 lb/d
PRAZI	0.21 lb/d	0.29 lb/d

No Advantage to Hydroponic Fodder

Hydroponic fodder is being promoted as a means to reduce feed costs and improve productivity. Alan Sulser, an Agricultural Extension Agent with Utah State University, conducted an experiment to evaluate the economic potential of hydroponic fodder and effect(s) its on the performance of sheep. Over a two year period, Sulser fed hydroponic fodder to replacement ewes and rams.

After a 2-week adaptation period, sheep were randomly allocated to two treatment groups. The control group was fed alfalfa hay and mixed grain (corn + barley). The treatment group was fed the same feed ingredients, along with hydroponic fodder. Sulser sprouted his own grains from barley (6 day growth period). The rations were balanced for energy (TDN) on a dry matter basis using Montana State University's Sheep Ration Balancer. The sheep were fed their respective diets for 100 days. They were fed twice daily and weighed every 10 days.



Averaged over both years and sexes, body weight gain was not significantly between groups. Control sheep gained an average 0.64 lbs. per day, while the fodder-fed sheep averaged 0.59 lbs. per day. Compared to the control group, the fodder-fed animals consumed more dry matter on a daily basis. Feed cost per day was higher for the fodder-fed animals: \$0.96 vs. \$0.54 per day. If all costs are included, feed cost per day for the fodder-fed animals increases to \$1.08. Cost per pound of gain increases to 1.87., other costs include labor, water, electricity, and equipment (\$10,000 for a commercial fodder system prorated over 10 years).

The experiments showed no advantage to feeding hydroponic fodder in replacement of hay and grain to replacement sheep. The experiments were not scientific.

Source: Journal of the NACAA, December 2015

Northeastern Sheep & Goat Producers

Do Your Small Ruminants Have Problems With Worms ?

To-Do
Next summer

Do you want to improve your parasite control?
Do you want to know which of your animals are most parasite resistant?

Do you want to learn how to select for traits like parasite resistance in your breeding program?

Do you live in the Northeast?

Via a Northeast SARE grant, the University of Rhode Island (and its partners) are offering free fecal egg count (FEC) analysis to assist with selective breeding for resistance to gastrointestinal nematodes (GIN). Producers can receive assistance in identifying the most parasite resistant sheep and goats in their flocks/herds by using fecal egg count analysis, combined with FAMACHA© scores. They can receive guidance on using results in individualized selective breeding decisions.

Criteria for participation. Small Ruminant producers who ..

Live in one of the northeastern states: New England, New Jersey, New York Pennsylvania, Maryland, Delaware, West Virginia

Have a history of problems with gastrointestinal nematode worms

Are FAMACHA© certified (online training is available)
Are willing to share general herd/flock information/history
Have the ability to obtain and ship fecal samples from your animals twice, 3-4 weeks apart
Have not dewormed the animals to be tested 4 weeks prior to fecal egg analysis

Producers interested in participating in this program please contact either Holly Burdett (hburdett@uri.edu) or Dr. Katherine Peterson (kpetersson@uri.edu) to obtain fecal sampling and shipping instructions.

Going on Sabbatical

From December 1, 2016, through May 31, 2017, I will be on sabbatical. My sabbatical will focus in three general areas:

- 1) Modernizing Extension delivery methods
- 2) Research & Extension in Jamaica
- 3) Study tour of Australia and New Zealand

My specific interest is applying technology to sheep and goat farms, as well as extension delivery (teaching methods). I want to help small and medium sized producers apply technology to their small ruminant farms. By technology, I mean precision sheep (and goat) farming, electronic ID, on-farm decision support systems, mobile computing, smart phone applications, and quantitative genetic evaluation.

Susan Schoenian
Sheep & Goat Specialist

SABBATICAL - A period of paid leave granted to a college teacher for study or travel, traditionally every seventh year.

Goat Performance & Carcass Contest (continued from page 2)

2.2 square inches. Its carcass had little external fat, but its percent of kidney heart fat was second highest. Lean gain was 0.115 lbs. per day. Loos also had a top-10 buck in the test. It was the third highest gaining buck.

Richard Gamby from Ohio had the Reserve Champion Goat. It gained 0.276 lbs. per day. It weighed 80 lbs. at the time of slaughter. Its dressing percentage was 46.3 percent. Its lean gain was 0.072 lbs. per day. Gamby also had a top-10 buck in the test. It was the second highest gaining buck. The 3rd, 4th, and 5th place goats in the contest were entered by William Winingear and Brittany White (Missouri), John Smith (Virginia), and Patricia Larr (Indiana), respectively. Patricia Larr also had a top-10 goat in the test.

The purpose of the Performance & Carcass Contest was to recognize producers whose goats excel in growth performance and carcass merit. It was the first year of the contest.

Proper Culling Improves Productivity

Culling is one of a producer's most powerful tools. Culling is when an animal is removed from the breeding herd. It is customary to replace 15 to 20 percent of the herd each year. Culling rates tend to be highest in high-producing and purebred herds.

Age is the usually the primary reason why a female is removed from the herd. This is because ewes and does tend to be most productive between the ages of 3 and 6. After six years of age, their productivity tends to decline. Older animals may have difficulty maintain their body condition. For this reason, culling based on age, is generally a good management practice.

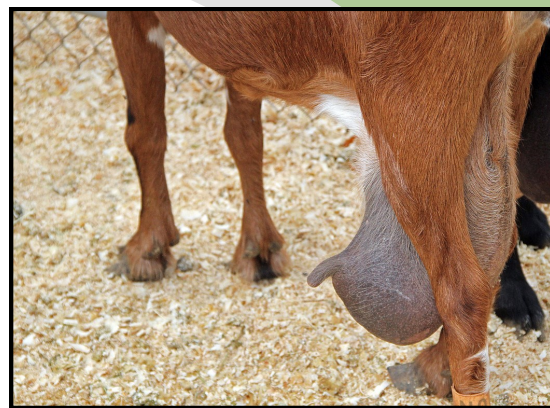
On the other hand, some females are productive well beyond the age of 6. Females that maintain their productivity for a longer period of time should be retained, and their offspring should be favored, as longevity is heritable. In fact, on some farms, keeping older productive ewes may be a way to increase productivity, while reducing the costs of replacement.

Females that prolapse their vaginas should be culled. Some producers cull females that experience uterine prolapses. Animals which are chronically infected with footrot or scald or fail to respond to treatment should be culled. Animals with abnormal or excessive hoof growth should be culled. Animals which require frequent deworming should be culled. Fecal egg counts can aid in selection and culling decisions. Some disease eradication programs (e.g. OPP, CAE, CL, and Johne's) will require rigid culling standards.

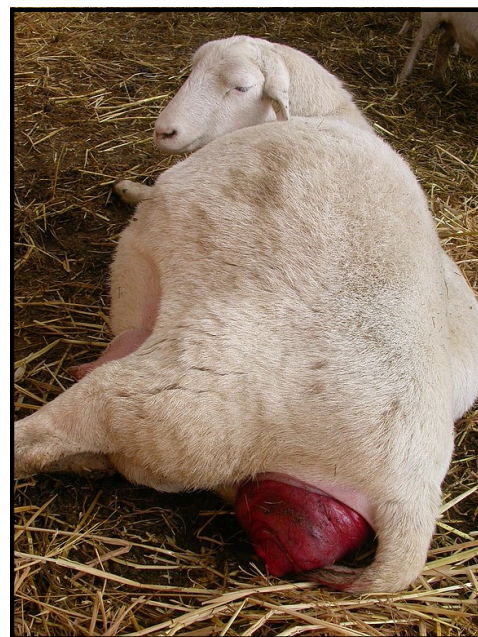
Another important criteria for culling is performance. Females that fail to produce offspring should be culled, with no second chances given. Females that lamb/kid late in the season are prime candidates for culling. In accelerating lambing/kidding systems, females that miss one or more breeding opportunities should be culled.

Some producers will cull females that require assistance at parturition, along with their offspring. Females that reject or harm their offspring should be culled. Females whose offspring are small, weak, and/or slow to suckle should be culled. Single births, especially more than once, are a reason for culling, especially in highly productive flocks and herds. Records are essential to making sound culling decisions. In fact, good records will identify poor producers regardless of the reason(s): age, health, or genetics. Ranking females according to the pounds of offspring they wean is a good way to identify candidates for culling.

Proper culling will reduce the cost of maintaining the herd, as unproductive females take up space, eat feed, and require labor, while producing less profit than their more productive contemporaries, maybe even costing the farm money. Proper culling makes sheep and goat production more profitable and sustainable. If you find you're making too many excuses for an animal, get rid of it. You'll be glad you did.



(Bad Udder)



(Vaginal Prolapse)



(Footrot)

Upcoming Events



October 29

Annual West Virginia Sheep Federation Short Course and Mountain State Bred Ewe & Doe Sale
4-H Exhibit Building, Tri-County Fairgrounds, Petersburg, WV
Info: <http://www.sheepwv.org/>

November 4-5

Virginia Tech Sheep Management Basics Workshop (Sheep 101)
Virginia Tech Copenhaver Sheep Center, Blacksburg, VA
Download flyer at :<http://www.apsc.vt.edu>

November 10

Animal Health Stakeholder Webinar: Goats
by USDA-NIFA Division of Animal Systems and USDA-ARS Animal Health
Info: <https://www.eventbrite.com>

November 11-12

13th Annual Small Farm Conference
University of MD Eastern Shore, Princess Anne, MD
Info: <http://umessmallfarm.com/conference/>

December 1-4

North American Dairy Sheep Association
Annual Symposium
Cornell University, Ithaca, NY
Info: <http://www.dsana.org/>

January 1

Veterinary Feed Directive (VFD) becomes law
Info: <http://www.fda.gov>

January 12-14

Future Harvest
CASA's Cultivate the Chesapeake Food shed
College Park Marriott, College Park, MD
Info: <https://www.futureharvestcasa.org>

January 25-28

American Sheep Industry (ASI)
Association Annual Convention
American Goat Federation (AGF) Annual Meeting and Producers' Seminar
Denver, CO
Info: <http://www.sheepusa.org>

February 1-4

PASA's 24th Farming for the Future Conference
Penn State Conference Center, State College, PA
Info: <http://conference.pasafarming.org/>

February 17-19

National Goat Conference
Tuskegee University, Tuskegee, AL
Info: <http://www.famu.edu>

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