Guidelines for the 2018 West Virginia Small Ruminant Evaluation Program

Location: West Virginia University Animal Science Farm
1245 Stewartstown Rd
Morgantown, WV 26506

Purpose: This program was established as an unbiased evaluation of young rams and bucks in a common environment where economically traits.

Important Dates:

Nomination forms due	April 13, 2018
Delivery day	May 13, 2018
On-Test	May 28, 2018
21-day report	June 18, 2018
42-day report	July 9, 2018
Off-Test	July 30, 2018
Pick-up	August 7-14, 2018

- Rams/Bucks will be weighed weekly to collect the gain data necessary to calculate Residual Feed Intake.
- On Test and Off Test weights will be taken two consecutive times and averaged to help take into account differences in gut fill.
- Progress reports will be disseminated at three week intervals and can be accessed on the web at: http://sheepandgoats.wvu.edu or our Facebook page at: https://www.facebook.com/wvrambucktest .

Liability: Rams/Bucks in the evaluation program will receive appropriate management. Veterinary services will be used when deemed necessary by the station management and/or the program chairman. The sponsors assume no liability for loss of rams/bucks, property damage, personal injury, or the accuracy of consignor information or of data collected.

New Addition – Evaluating resistance to *Haemonchus contortus*

Overview: *Haemonchus contortus* or the barber-pole worm is the leading cause of death due to parasitism. This parasite is a blood-feeder and resides in the hosts' abomasum. Adult worms consume 0.05ml of blood per day. Multiplied by 1000 that is equivalent to 50mL of blood daily. That may be a little or a lot depending on the size of the host. In young kids and lambs, *Haemonchus* is lethal therefore controlling this parasite is required for economical small ruminant production. This problem is amplified by development of dewormer resistance and many producers have decided to utilize parasite-resistant breeds of sheep and goats.

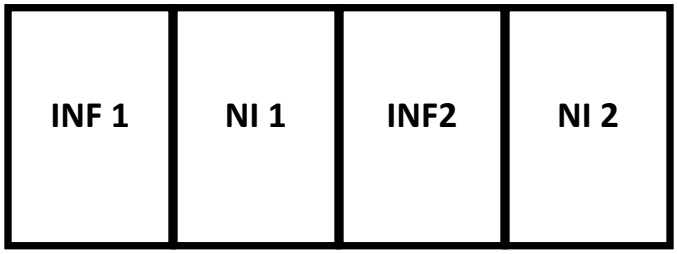
While Kiko goats have shown some resistance to H. contortus infection, what has been learned from other breeds is that this trait like many quantitative traits is normally distributed – meaning that there is a range of parasite resistance. What we aim to do in this years' test is to identify bucks with superior resistance by infecting them with Haemonchus contortus.

Approach: Upon arrival, all bucks will be dewormed using three drugs to clear any infection that they may arrive with. Fecal samples will be collected on arrival and at the on-test day – which will allow us to calculate efficacy of dewormer regime. On the first test day lambs in the infected group will be given 10,000 *H. contortus* larvae orally. These larvae have been used in my research lab and are very sensitive to all classes of dewormer. Fecal and blood samples will be taken weekly, if at any time a bucks' PCV reaches 15% it will be dewormed immediately. **At the end of the test, infected bucks will be dewormed with levamisole and will be available for pick up starting 1 week after deworming.**

Using your bucks for an experiment

Overview: Since we will be infecting half of the bucks on test, and measuring intake using our Grow-Safe system, we thought it would be a great idea to determine the nutritional cost of infection. Often when grazing kids and lambs we assume pasture alone is sufficient to provide adequate nutrients to support maintenance and growth. Our recent research studies have demonstrated that protein nutrition is deficient, at least in our WV pastures. When we supplement with additional protein, growth and resistance to parasites is improved. The question that remains is how much protein, how much energy and what are maintenance requirement of growing kids infected with *H. contortus* ?

Approach: To make this work efficiently each farm must submit an even number of bucks. **If producers send an odd number of bucks they must send a minimum of 5 bucks**. Bucks within each farm will be assigned to infected or non-infected groups. To accommodate two groups of each infection type, we have installed two additional Grow-Safe bunks.



Within each farm, bucks assigned to infected or non-infected groups will be evenly distributed to one of two groups within infected and non-infected treatments as diagrammed above. We have added new weighing facilities that will utilize RFID tags that each buck will be outfitted with and also used in the Grow-Safe system. On the nomination form, there is box that each producer can check to opt-out of this research trial and just participate in the standard test.

Health Requirements

1.) Rams/Bucks must carry appropriate Federal Scrapie Program identification tag at delivery.
2.) No Rams/ Bucks may enter from any flock under federal or state quarantine
3.) **A Certificate of Veterinary Inspection (CVI) must accompany rams/bucks being delivered to the station. A valid CVI must be presented and cleared before animals are unloaded**
4.) All rams/bucks must have had their feet trimmed within 10 days prior to delivery to the station
5.) Cooperators are **STRONGLY ENCOURAGED** to wean lambs/kids at least 2 weeks prior to delivery and have them started on ad-libitum **pelleted** feed to minimize stress.
6.) Animals will be processed during the warm-up period as follows:

   i. treated for control of internal and external parasites,
   ii. feet soaked in a foot bath of zinc sulfate at time of delivery
   iii. paint branded
   iv. vaccinated for Enterotoxemia, Tetanus and Soremouth
   v. treated for Coccidia

7.) On arrival at the test station, ram lambs/kids will be evaluated for type, soundness (reproductive, mouth, feet/leg structure), and health (including any foot problems) by the station manager and veterinarian. To qualify rams/bucks must meet all of the above conditions.
8.) Kiko bucks must weigh at least 40 lbs to be allowed into the test. There will be a 0.5% of body weight allowance for bucks being shipped from outside WV, test admittance is at the discretion of the test program manager.

Eligibility

1.) A maximum of 120 bucks will be accepted to the test. Cooperators will be notified of the number of bucks accepted as soon as possible. Preference will be given to West Virginia cooperators however out-of-state cooperators are welcomed.

2.) To be eligible for the 2018 test, bucks must be born between January 1, 2018 and March 1, 2018

3.) Rams/bucks must be raised by their natural mothers (lambs/kids raised on nurse ewes/does and foster dams are not eligible for the sale) except that ET lambs/kids may be consigned as long as there is a minimum of three full brothers consigned. ET lambs/kids must be gestated and raised by ewes/does of the same breed as the breed of the ram lamb/buck kid.

4.) It is strongly encouraged that at least three rams/bucks from the same contemporary group at weaning be consigned to the test (except as described previously for ETs).

5.) Consignors of accepted rams/bucks agree to abide by all rules, regulations, terms, and conditions of the entire program, and any that might be adopted by the West Virginia Small Ruminant Test Committee for that test.

Procedures for Entrance

1.) Complete Nomination form and mail with check for $25.00 per ram/buck nomination, must postmarked by April 13, 2018. Make check payable to "West Virginia University". Entry fees for rams/bucks not accepted due to insufficient facility space and/or rams/bucks that do not meet entry requirements will be refunded.

2.) After notification of acceptance, complete Consignment Forms and deliver them with the rams/bucks on Sunday, May 13, 2018.

3.) Rams/bucks will be received between 8:30am and 2:00pm EST on May 13, 2018, or by scheduling another time with Dr. Scott Bowdridge

4.) $100 per ram/buck at delivery (applied to feed, bedding, Veterinary costs, yardage and other station costs associated with recording ultrasonographic data, genetic testing for scrapie, and conducting the Breeding Soundness Evaluation).

Other items

1.) Rams/Bucks will be fed in groups, according to breed and age, within facility limitations.

2.) All rams/bucks must remain on feed for the entire period unless removed with written permission from the test manager.

3.) Breeds represented by fewer than two consigners will be handled in the most appropriate manner possible as determined by the Small Ruminant Evaluation committee.

Addresses and phone numbers for reference:

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