



High Altitude Bull Test

University of Wyoming

Consignor's Handbook

2024-2025



Welcome to the 2024-2025 University of Wyoming High Altitude Bull Test!

The University of Wyoming is excited to host the third annual University of Wyoming High Altitude Bull Test. The mission of the bull test is to provide a unique learning experience for our students, valuable data and a venue for producers to market their bulls, and a source of PAP-tested bulls for cow-calf producers across the region.

Last year was a great success, largely due to the support of the consignors and buyers, as well as the hard work of the students involved in the program. Building off of our success in 2023 we added a 45-day screening period to assess performance and risk for pulmonary hypertension. We also increased the length of the test to accommodate a 70-day feed efficiency test and transitioned to a live sale format. Bulls performed well throughout the test, with an overall average daily gain of 3.18 lbs/day across all bulls. We had 43 bulls complete the test and available for sale with an average sale price of \$4,651.79. In addition to providing a valuable resource for producers, the bull test also provides a unique learning opportunity for students. Students have the opportunity to gain valuable experience in bull development, bull selection, breeding soundness exams, pulmonary arterial pressure testing, bull fertility, feed efficiency, carcass ultrasound, developing marketing materials, clipping and picturing bulls, and data management. We offer both a fall and spring semester course to increase the learning opportunities for students related to bull development and marketing. This course is a unique opportunity to provide students with real-world experience that will better prepare them for careers in the livestock industry.

In the packet you will find details of the test, requirements for bulls to enter the test, projected costs, and important dates. We look forward to working with you and thank you for your continued support of the University of Wyoming High Altitude Bull Test. Should you have any questions or concerns please feel free to contact us!

Thank you,

The University of Wyoming Bull Test Team

Contact for Bull Test Information & Entry Form Questions

Shelby Rosasco

Beef Extension Specialist

Email: srosasco@uwyo.edu

Office: (307) 766-2329

Cell: (209) 753-8227

Contact for On-Site Information, Bull Delivery, Animal Management Questions

Ben Hollinger

UW Beef Unit Manager

Email: bhollin2@uwyo.edu

Cell: (307)761-2811

University of Wyoming High Altitude Bull Test Team

Shelby Rosasco
Beef Extension Specialist
Email: srosasco@uwyo.edu
Office: (307) 766-2329
Cell: (209) 753-8227

Scott Lake
LREC Director
Email: scott.lake@uwyo.edu
Office: (307) 766-3892
Cell: (307) 460-8129

Cody Gifford
Meat Scientist
Email: cody.gifford@uwyo.edu
Office: (307) 766-4214
Cell: (307) 272-3319

Ben Hollinger
Beef Unit Manager
Email: bhollin2@uwyo.edu
Cell: (307) 761-2811

Hannah Hollinger
Livestock Geneticist
Email: hcunnin6@uwyo.edu
Office: (307) 766-6530
Cell: (307) 761-4182

Chase Markel
Graduate Student
Email: cmarkell1@uwyo.edu
Cell: (307) 331-598

Test Overview

The University of Wyoming High Altitude Bull Test offers a unique opportunity to performance test bulls at 7200 ft and evaluate their risk for pulmonary hypertension (brisket disease) via pulmonary arterial pressure (PAP) testing! The test will begin with a 45-day “screening period,” which is designed to assess a bull’s risk for pulmonary hypertension (brisket disease) and propensity for adequate growth for successful completion of the test and sale. All consigned bulls will be sorted and managed according to receiving weight and fed a receiving diet consisting of grass hay and grain to achieve a gain of 2.5 - 3 lb/d. At the conclusion of a 45-day period, an initial PAP test will be completed. Bulls with high PAP and/or low performance will be communicated with the consignor to collectively decide if the bull should continue on the test.

At the completion of the screening period, bulls will be transitioned to the LREC feedlot, where they will be acclimated to the Vytelle SENSE™ system (formerly GrowSafe). This system does require an EID tag (provided by the University of Wyoming High Altitude Bull Test) and will provide daily, individual feed intake records. A total mixed ration will be delivered in these feeders with ad libitum access 24/7. At the completion of the 70 day feed efficiency test period, bulls will be fed the same ration in concrete bunks. A second PAP test will be performed at the beginning of March and serve as their final PAP score.

Our aim is to provide updates on data as often as possible. Weight data will be updated 24 hours after each weigh day, feed intake data will be updated every 2-weeks, and other data collection dates and results will be communicated as the data is collected and recorded. A shared data file will be available to all consignors with these data and we aim to post monthly updates on bull data available for potential buyers. The data you can expect to receive on each bull that completes the entire test will include:

- 2 PAP measurements
- Growth metrics over an extended period
- Individual feed intake
- Feed efficiency metrics (RFI, G:F/FCR, etc.)
- Breeding Soundness Exam

Projected Test Costs (per head)

*Entry Fee	\$85
Approximate feed cost/day (~150 days)	\$3.50
Health	Billed as needed
PAP Tests (2 tests)	\$70
BSE	\$24
Marketing fee/Sale prep (professional photos, videos, etc.)	\$100
Yardage Screening Period	\$20
Yardage Feed Test Period	\$70
Sale Commission (UW Bull Test, Auctioneer, DVAuction)	10% of final sale
<i>Ultrasound (Available upon request)</i>	<i>\$20</i>
<i>Genomic Testing Upon Request</i>	<i>Variable</i>
<i>Approximate Total (w/o Health and Commissions)</i>	<i>~\$900</i>

**Brand inspections will be arranged but charged to consignor; Entry fees due at time of arrival.*

Bull Requirements

- Both registered and non-registered bulls eligible
 - Non-registered bulls will be sold in their own section at the sale
- Must fall into one of two age categories:
 - Yearling Bulls: born between December 1, 2023, and April 31, 2024
 - 2-Year-old Bulls: born between March 1, 2023 and September 1, 2023
 - *We recommend yearlings weigh no less than 750 lb at the end of the screening period to ensure bulls are adequate size at the time of sale (~1000 lb)*
- To avoid injury to other bulls and/or personnel working with the bulls, we will ask that any bulls with disposition that creates an unsafe handling environment be removed from test.
- At time of delivery to the University of Wyoming, brand inspection, health papers, and proof of negative BVD-PI test, and trichomoniasis test (for 2-year-old bulls) are required.
- Bulls that “pass” the initial screening (~December 19th) will enter the feed efficiency test and be consigned to the live sale (March 21st)
 - UW Bull test will consult with consigners on bulls that are questionable due to weight and/or PAP score to make a final determination on whether they should continue on the test.
 - Bulls that do not “pass” the initial screening will need to be picked up by January 3rd, 2025 (please give Ben Hollinger 24-hour notice prior to pick-up)
 - Additional data (registration numbers, etc.) of bulls that pass the screening must be submitted to test management no later than January 3rd, 2025.
- Bulls must be picked up/delivered by March 28th, 2025. If bulls are not picked up by this date you will be charged for any additional costs accrued (feed, yardage, health, etc.)

Space Limitations. We will only be accepting 100 bulls for the initial screening period and only 80 bulls for the remainder of the test. Therefore, we have implemented a 10-head per consignor limit. If the consignment deadline is passed and there is room, the consignor limit may be waived to fulfill the 100-bull quota.

Vaccination and Health Requirements

- Proof of negative BVD-PI must be provided prior to arrival at the test facility.
- All cattle must be accompanied by a Certificate of Veterinary Inspection (CVI) that complies with guidelines provided by the Wyoming Livestock Board and USDA/APHIS.
- No visible signs of illness, lameness, lice, pinkeye, or other ailment at receiving.
- Bulls must be weaned and preconditioned at least 3 weeks prior to arrival.
- Up to date on clostridium and respiratory vaccinations.
 - Recommended: *Bulls should receive a seven-way clostridial and a viral respiratory vaccination for IBR, PI3, BVD 1 and 2, and BRSV at least 3 weeks prior to arrival*
- Anthelmintic of choice

***Due to repeated needle puncture (pulmonary artery catheterization), bulls may be at risk of contracting BLV (Bovine Leukosis). Serological testing at the end of the test can be provided upon request. ***

Ration & Feed Delivery

Upon arrival to Laramie, bulls will be managed on pasture and fed a receiving diet to target 3.0 pounds of gain per day. When transitioned into the feedlot for the feed efficiency period, a ~14% protein, 54 Mcal total mixed ration will be fed in the Vytelle SENSE™ bunks or concrete bunk. This diet will be fed to target 3.5 pounds of gain per day.

***Due to the harsh winter conditions in Laramie, bulls are at a higher risk of decreased gain. To avoid this decrease in performance, we recommend that consigned bulls are in good shape and started on a high energy diet. ***

Health Monitoring & Treatment Protocol

Treatment will be administered at our staff's discretion following our health management guidelines. An ionophore (Rumensin) will be included in the ration to optimize digestion and performance. At receiving bulls will receive a prophylactic to prevent respiratory disease and will be given a pour-on insecticide (Clean-Up II) at the start of the feed efficiency period and used as needed after that. Cost associated with treatment will be billed out individually. For more information regarding our health management and testing guidelines, please reach out to Ben Hollinger.

Marketing Materials

The "Bull Enterprise and Marketing" class will create custom sale flyers and a sale catalog to highlight bulls in the test and sale. The marketing materials created will incorporate data collected during the test, which includes:

- Performance data: ADG, Feed:Gain, Residual feed intake (RFI), and DMI
- Carcass ultrasound data (Upon request): Rib eye area (REA), Backfat, intramuscular fat (IMF)
- PAP Score: Measurements taken at day 45 and completion of the feeding period
- Bull Fertility: Breeding soundness exam – performed by Alpine Animal Hospital

- EPD Data:
 - Registered animals will be marketed with EPD and/or gEPD depending on availability or interest in genomic data
 - Upon request, UW High Altitude Bull Test will gladly collect a sample for genomic testing and send in for analysis – billing will be direct to consignor.
 - Genetic testing via a commercial lab for specific health screening and/or commercial herd genetic evaluations available upon request (for more information, please contact Hannah Hollinger; hcunnin6@uwyo.edu)
- Photos and videos
 - Bulls will be clipped, torched, pictured, and videoed
 - A professional photographer will be doing the picturing and video/editing

****All data will meet the guidelines for reporting to breed associations and will be provided for the consignor and buyer ****

Digital copies will be provided to the consignor to distribute in advance of the sale. The High Altitude Bull Test Field Day and Sale will be promoted and shared through our media outlets and the University of Wyoming Beef Extension social media pages.

The Field Day and Sale will occur on March 21st at the Hansen Arena at the Laramie Research and Extension Center in Laramie, Wyoming. The morning will consist of an educational session covering topics related to pulmonary hypertension, bull development and selection, bull fertility, and an overview of the 2024-2025 bull test performance presented by the undergraduate students participating in the course. Bull viewing will be available prior to the educational session and during the lunch period before the start of the live sale. The sale will be a live sale with online and phone bidding options available.

Entry Forms

Entry forms can be submitted either electronically or by mail (see end of packet for hardcopy of entry form). Entries must be postmarked or electronically submitted by **October 25th, 2024**. Electronic submissions via Qualtrics are encouraged. If you would prefer to submit your entry by mail, contact Shelby Rosasco to reserve your spaces.

Below is a link and QR code for the UW High Altitude Bull Test Entry Form:



<https://bit.ly/UWBullTestEntry>

2024-25 UW High Altitude Bull Test & Sale Calendar

10/25/2024	<ul style="list-style-type: none"> • Deadline for Entry (Post-marked or submitted online)
11/4 – 11/8/2024	<ul style="list-style-type: none"> • Receive bulls • 24-hour notice must be given prior to delivery (contact Ben Hollinger) • Bulls must be accompanied by appropriate paperwork, including: brand inspection, proof of negative BVD-PI test, Certificate of Veterinary Inspection (CVI) if out of state, and trichomoniasis test (for 2-yr-old bulls) • Bulls will be weighed, administered receiving prophylactic protocol and sorted upon arrival.
11/9 - 11/19/2024	<ul style="list-style-type: none"> • Screening period
12/19/2024	<ul style="list-style-type: none"> • Initial PAP test performed and weight taken.
12/23/2024	<ul style="list-style-type: none"> • Screening period decisions made and consigner update sent • Start of feed efficiency test period
12/24/2024 – 1/3/2025	<ul style="list-style-type: none"> • Pickup period for bulls that failed screening period
1/3/2024	<ul style="list-style-type: none"> • Deadline for submission of data and registration information for bulls remaining on test.
1/6/2025	<ul style="list-style-type: none"> • Weigh Date
1/20/2025	<ul style="list-style-type: none"> • Weigh Date
2/3/2025	<ul style="list-style-type: none"> • Weigh Date
2/17 – 2/21/2025	<ul style="list-style-type: none"> • Bull preparation for picturing and videoing (clip and torch bulls). • Weigh Date (2/17/2025)
2/22/2025 & 2/23/2025	<ul style="list-style-type: none"> • Picture and video bulls
Late February	<ul style="list-style-type: none"> • Breeding Soundness Exam. Actual date will depend on schedules.
3/3/2025	<ul style="list-style-type: none"> • End of feed efficiency test period. • Final PAP test performed, and final weight taken.
3/4/2025	<ul style="list-style-type: none"> • Bull sale catalog and videos posted.
3/21/2025	<ul style="list-style-type: none"> • 3rd Annual UW High Altitude Bull Sale • Educational field day prior to sale

**Consigner updates will be sent out every 3 weeks with available data and updated information related to bull management and upcoming dates.*

Supplemental PAP information

At 40-45 days of the test and beginning of March, a pulmonary arterial pressure (PAP) measurement will be recorded on each bull by a certified technician. This measurement is acquired by introducing a catheter into the jugular vein, through the right atrium and ventricle of the heart, and into the pulmonary artery. Once the pressure is read, the catheter is removed. Cattle are thoroughly prepped and scrubbed prior to venipuncture to minimize the possibility of infection. This procedure is considered minimal risk, with the most common side effect being jugular hematoma. Below are the risk categories for development of pulmonary hypertension associated with PAP score ranges as outlined by Dr. Tim Holt. We will adhere to these guidelines at the University of Wyoming High Altitude Bull Test.

PAP Risk Factor: Very High Elevation Test Chart PAP test conducted at elevation (>7000 ft)				
PAP Score	Use at Low Elevation (<4000 ft)	Use at Moderate Elevation (4000-5000 ft)	Use at High Elevation (5500-7500 ft)	Use at Extreme Elevation (>7500 ft)
34-45	Low Risk	Low Risk	Low Risk	Low Risk
46-49	Moderate Risk	Moderate Risk	Moderate Risk	Moderate Risk
≥ 50	Moderate Risk	Moderate Risk	High Risk	High Risk

When selecting an animal based on a PAP measurement, other factors besides those listed above should be considered such as genetics or pedigree, PAP EPD, Systolic/Diastolic pressures, breed, and previous illness. Special consideration should be given to the amount of time the animal was exposed to elevation (>5500 ft.) prior to testing. The predictability and repeatability of the PAP measurement improves with longer exposure to higher elevation (minimum of 4 weeks is required). This chart is based on animals greater than 10 months of age. Testing older animals (>12 months) results in a higher predictive and repeatability measurement.

(Dr. Tim Holt, DVM)

Using the guidelines set by Dr. Tim Holt, a bull is at substantial risk for right ventricular failure secondary to pulmonary hypertension (Brisket disease) with any PAP measurement equal to or greater than 50 mmHg at 7200 ft (Laramie, WY) for use at an elevation of 5500 ft and above. All bulls with a PAP measurement of 50mmHg and above will be subject to further evaluation. Removal from the test and relocation to an elevation of below 5500 ft may be necessary. The University of Wyoming High Altitude Bull Test will not be held liable for mortalities due to Brisket disease. **Consignors will be called to discuss options should a bull fail the PAP test.**

Entry Form for Mail Submission

(If you plan to submit online, please use the link on page 6)

Thank you for your interest in the University of Wyoming High Altitude Bull Test

1. All questions on this form are **REQUIRED**. If some of the questions do not pertain to you, please answer N/A.
2. Please be as specific as possible with all data entry. If bulls pass the screening period and enter the 2nd phase (feed efficiency testing), further information will be collected at that time (registration numbers, sire ID, etc.).
3. If there is an issue with your entry form, or for any questions, please contact Shelby Rosasco at srosasco@uwyo.edu ASAP.

Ranch Name	
Contact Name(s)	
Phone Number(s)	
Email Address	
Mailing Address	

Please enter complete information for each bull consigned				
Animal ID	Birth Date	BW	Breed	Current Diet

Please mail entry forms to:

Dept of Animal Science
Shelby Rosasco
1000 E University Ave., Dept. 3684
Laramie, WY 82071

IMPORTANT INFORMATION

1. Bull receiving is open between 11/4/2024 - 11/8/2024. No late entries will be accepted.
2. All bulls must arrive with health papers, brand papers, negative BVD-PI test, as well as negative Trichomoniasis test for aged bulls. Bull will not be unloaded until these papers are collected.
3. Entry fees are due upon bull arrival. Bulls WILL NOT be unloaded until payment is received.