



May 23, 2023

TO: Livestock Show Coordinators; County Livestock and Youth Extension Agents

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SUBJECT: WSU Carcass Show Services 2023

Washington State University (WSU) Department of Animal Sciences is offering a service to collect carcass and ultrasound data for the use in conducting carcass shows at local, county, regional, state, or national livestock shows and fairs beginning immediately in 2023. The service is available to any show and applicable to all meat animal species (cattle, hogs, sheep, and goats). This memorandum details the need for the service, the service itself, and the fee schedule. Shows interested in using the service should complete the Request Form included herein.

Livestock shows are tremendous educational opportunities for youth interested in animal agriculture. While the life skills taught in preparing a livestock project for show are perhaps the greatest benefit of the show ring, the technical knowledge ascertained through livestock showing has established a foundation for so many young people to pursue careers in the livestock industry. An important component of this technical knowledge is demonstrated in the live ranking of livestock because a masterful judge must consider many important factors, including structural correctness, body volume, muscularity, balance, and performance, among other traits. Another important component of the technical knowledge involved with livestock showing is the actual (not estimated) carcass value of market livestock intended for slaughter. The service proposed herein aims to address this needed and largely absent type of education at livestock shows in the Pacific Northwest.

Without exception, a perfectly executed carcass show that is fair to all contestants is conducted when *all* livestock in the carcass show are harvested, chilled, and graded on the *same day* and in the *same facility* as *each other*. Given limited local processing capacity and an eminent demand for custom processing of show animals to provide meat for local communities, the ability to conduct the perfect carcass show is not possible for most, if not all, livestock shows. This limitation must not interfere with the ability to educate young people about carcass merit, and it poses a need for a next-best option. Modern-day tools, like ultrasound, provide for relative ranking of livestock on carcass merit that is nearly equal to measurement of the carcass itself, so much so that ultrasound information is routinely used by producers of all species in selection of breeding stock. WSU Animal Sciences has recently acquired a state-of-the-art ultrasound machine for obtaining carcass information and has the expertise necessary for collecting, summarizing, and presenting such information. Therefore, we propose 2 options for those interested in using our services to conduct a carcass show. There is no need to utilize both options on the same animal.

Option 1: Because it is the best option, we prefer to collect carcass data (i.e., actual carcass measures, not ultrasound) to conduct a carcass show, if possible. However, specific criteria must be met for our team to collect actual carcass data for utilization in conducting a carcass show.

- 1) All animals in the carcass show must be harvested within one week of each other and no more than one week after the live show.
- 2) Beef carcasses must be chilled as intact sides (i.e., no quartering on the harvest floor, sides split through the vertebral column).
- 3) Skin must remain on pork carcasses (i.e., scalding must occur).
- 4) A scale to obtain hot carcass weight must also be used in the facility.
- 5) It is not necessary that all animals in the carcass show be processed in the same facility, and we can travel to multiple facilities to collect carcass data.



Option 2: We recognize well the logistical challenges that may exist for many shows with the outlined criteria for our team to conduct a carcass show from actual carcass data. Therefore, we propose an alternative, and likely more feasible and popular, option to collect carcass information to conduct a carcass show. Using an ultrasound machine, we will be able to sufficiently capture information pertinent to the ranking of all livestock species on carcass merit at one time in one location. Criteria for conducting a carcass show through the collection of ultrasound data are outlined below.

- 1) All animals within a species must be available for ultrasound within the same time frame (i.e., same day). If needed, we will ultrasound different species at different times and (or) days to accommodate the show schedule (i.e., cattle one day, hogs the next day).
2) The show must provide adequate animal handling and restraint equipment for an efficient and safe process. For cattle, this entails a blocking chute where the animal's head can be restrained. For hogs, an alley with sliding gates or a small livestock scale for individual animal separation is required; we will not ultrasound hogs in pens or an unconfined area. Sheep and goats can be held with a halter.
3) Vegetable oil will be used as a conductor to transmit sound waves from the ultrasound probe through the hair/wool and skin. It is recommended that the ultrasound event occur after the live evaluation show to not interfere with the cosmetic appearance of the animal. If this is not possible, it is recommended that exhibitors have access to facilities to wash or spot-clean their livestock of the oil.
4) If possible, our team will remove hair from cattle in the 12th-13th rib area on the non-show side so that sound waves from the ultrasound will conduct through the skin to provide the clearest image for evaluation. If excessive hair remains, image quality will be low, and data collection may not be possible. We will not guarantee data collection from low quality images caused by excess hair, and affected animals will not be eligible for the carcass contest. This is an additional reason for scheduling the ultrasound event for cattle, specifically, after the live evaluation show. This is not an issue for hogs or sheep shorn within 30 days of the show.

In addition to data collection (either from the carcass or ultrasound), we will summarize the data and provide a ranking on carcass merit using current market signals in the industry. If requested, our service includes a 1-hour presentation about the data we collected and its importance in the livestock and meat industry. The presentation can occur at the show or a later date, depending on the request. We will not be responsible for the solicitation or presentation of awards for the carcass show.

The fee schedule for collecting, summarizing, ranking, and presenting data is shown in the table to the right. In addition to this fee, a roundtrip mileage fee of \$0.66 per mile (current state rate), per diem rate for meals (if service spans more than one day), and lodging costs (if overnight stay is required) will be assessed for all services involved in data collection or presentation. A minimum of \$250 will be charged, in addition to travel costs, when the number of livestock/carcasses evaluated is less than 50 head. All fees collected will be used to support the WSU Meat Science program, which includes the meat judging program, in the Department of Animal Sciences. Please make checks payable to WSU Meat Science. Checks should be available at the time of service or mailed to Blake Foraker (address listed above).

Table with 2 columns: Item, Fee. Rows include Cattle Ultrasound\* (\$7.40/head), Hog, Sheep, Goat Ultrasound (\$5.00/head), Carcass Data (Any Species) (\$5.00/head), and a note about proprietary software for image analysis of marbling.

Requests for services will be processed on a first-come, first-served basis and must be submitted electronically (blake.foraker@wsu.edu) using the form included at the end of this letter NO LATER THAN JULY 1, 2023. We will do our best to accommodate all requests. Should a conflict not allow us to provide service, we will provide adequate notification to the requestor to find an alternate option.

We hope that this service will provide an additional educational opportunity for young people exhibiting their livestock projects at the many shows and fairs of the region. WSU Department of Animal Sciences strongly supports these kinds of educational activities, and we will make every effort to enhance these experiences. Please feel free to contact me with any questions or comments. Best of luck with this year's show!



# REQUEST FOR CARCASS SHOW SERVICE

SUBMIT NO LATER THAN JULY 1, 2023 TO:  
BLAKE FORAKER, [blake.foraker@wsu.edu](mailto:blake.foraker@wsu.edu)

THIS IS A FILLABLE PDF FORM.  
PLEASE TYPE YOUR RESPONSES, SAVE, AND ATTACH TO AN EMAIL.

SHOW NAME:	
SHOW LOCATION:	
CONTACT NAME:	
CONTACT PHONE:	
CONTACT EMAIL:	

DATE	SPECIES	TYPE OF DATA COLLECTION (CARCASS OR ULTRASOUND)	ESTIMATED NUMBER OF ANIMALS	START TIME

We would like the data summarized and presented on the day of the collection.

We would like an educational program to be presented.

Date and Time of Presentation: \_\_\_\_\_

Location of Presentation: \_\_\_\_\_

Topic of Presentation: \_\_\_\_\_

An overnight stay will be required.

INTERNAL USE - DATE OF RECEIPT: \_\_\_\_\_