

Robertson County Fair Association Drug Residue Avoidance Program - Introduction

Texas has the largest number of 4-H and FFA livestock projects in the nation. With this opportunity comes a responsibility for each exhibitor to learn and demonstrate the highest standards, both in personal character and in the feeding and care of their animals.

Food safety and a desire to maintain a fair and equitable competition are the primary reasons that over 50 livestock shows and county fairs across Texas choose to participate in a drug residue avoidance program. Drug testing livestock show animals helps livestock shows create a level playing field by identifying livestock that may have an unfair advantage achieved by using performance-enhancing drugs. Any trace of these drugs in show animals may constitute a serious infraction.

Livestock show drug testing is accomplished by collecting urine or feces samples at the livestock show which is tested for detectable levels of drug residues.

Detectable levels of drug residues are predetermined levels at which a drug is detected in a sample. Different testing platforms have different levels of detection, but with more advanced instruments, some can detect certain drugs in the single digit parts per trillion (ppt) range. This is different from the **withdrawal time**, which is the length of time it takes an animal's body to eliminate medication to a level that is safe for consumption. Livestock exhibitors must consider the amount of time before arrival at the show, and assume that the time it takes an animal to metabolize a drug to a non-detectable level is longer than the labeled withdrawal period.

Certain classes of antibiotics cause safety and welfare concerns if given to livestock improperly or with the wrong intentions. It is important for exhibitors to understand that even though exhibitors may follow all labeled instructions and are under the supervision of a veterinarian, it is critical to check specific livestock show guidelines and rules regarding their drug testing policies.

The following types of drugs may cause livestock exhibitors to be penalized:

Antibiotics/Antibacterials – This class of drug can pose a food safety concern if not properly administered.

Anti-inflammatories - These can pose a food safety concern if not properly administered and/or could create an unfair competitive advantage.

Beta agonists - These type of drug may cause food safety and animal welfare concerns if used in an unapproved species or not used according to the label. Beta agonists may also create an unfair advantage if used unethically.

Drug Residue Avoidance Program - Drug Testing Process

A typical livestock show drug screen consists of a two-part process. Samples undergo different extraction procedures that attempt to isolate and concentrate various drugs based on their chemical properties.

First, the samples for drug testing undergo an initial screening process. Samples are extracted to remove interfering compounds and concentrate target substances that may be present. These extracts are then screened using liquid chromatography – high resolution accurate mass spectrometry (LC-HRAMS). This technology allows the laboratory the ability to screen for hundreds to thousands of drugs and chemicals in a single analysis. Livestock shows generally screen for approximately 150 drugs.

If a sample appears to contain a residue that poses performance enhancing, food safety, or animal welfare concerns, the sample is retested and undergoes confirmation testing. Confirmation testing uses a new sample from the original test container. The confirmation test is a more targeted, drug-specific analysis using liquid chromatography – tandem mass spectrometry (LC-MS/MS).

Environmental and Dietary Substances

Prohibited substances present in the environment and dietary products can result in a positive test. For example, feed additives such as cocoa extract and chocolate contain theobromine. A nicotine user (i.e. chewing tobacco or snuff) may provide an opportunity for contamination or environmental exposure. Feeding

chocolates, colas, energy drinks and other ‘treats’ can also expose an animal to substances that may result in a positive test.

Chain of Custody

Chain of Custody refers to the chronological documentation of the collection, control, transfer, analysis, and disposition of livestock show samples.

The sample collection process at the show should be documented on a Chain of Custody form (attached), including the date, time and signature of the responsible individual. It is also recommended that a witness observe the collection process to sign and date the form. Samples should be marked with security tape to maintain integrity during transfer to the lab.

The drug testing lab provides a submittal form that includes Chain of Custody of sample transfer. Sample condition and integrity are documented upon receipt. Dates and initials of laboratory personnel, as well as chemical and reagent lot numbers are recorded throughout the testing process. Sample storage location and disposition date are recorded as well. A copy of the lab Chain of Custody is returned to the show once the transfer process is complete.

Drug Residue Avoidance Program – Policies and Procedures

County Extension Agent or Agricultural Science Teacher – this person should be viewed as an educator throughout the feeding period, at the livestock show, and beyond. For this reason, the CEA/AST should be removed from the collection and handling of drug testing samples, as well as the interpretation of results. It is imperative for this person to be viewed as an educational resource on this subject, rather than an enforcer.

County Livestock Show Board – this group selects and hires the official show veterinarian, lawyer, testing labs, and the Drug Test Review and Appeals Panel. Though not directly involved with drug residue test results, all correspondence and actions regarding these topics should be kept confidential within this group.

Drug Test Review and Appeals Panel - this group should help in coordinating and facilitating the drug residue avoidance program at the county level. This should entail follow up and any infractions on exhibitors. All correspondence regarding testing and positive results should be handled with confidentiality. These representatives should seek the advice of a subject matter expert, respective to each situation (veterinarian, CEA/AST, lawyer).

Official Show Veterinarian – in an effort to decrease public perception issues, the official show veterinarian is responsible for collecting urine samples at the show and then interpreting test results. This veterinarian should practice outside of the county of the show to decrease any conflict of interest questions. The veterinarian will work closely with the Drug Test Review and Appeals Panel to maintain the integrity of samples during chain of custody.

Attachment I: Robertson County Fair Association Residue Avoidance Program Protocol

RCFA Residue Avoidance Protocol

1. Annually Prior to Show

- 1.1. Show board selects “Official Show Testing Veterinarian”
- 1.2. Show board selects Lawyer to handle test results and any necessary actions.
- 1.3. Show board selects primary and secondary testing labs for specimen submittal.
- 1.4. Show board selects “Drug Test Review and Appeals Panel”
 - 1.4.1. The Drug Test Review and Appeals panel will be comprised of a pre-approved pool of five (5) individuals, (veterinarian, outside county Agricultural Science Teacher, outside county County Extension Agent, RCFA show official, and Lawyer)
 - 1.4.2. Confidentiality agreements will be signed by all pre-approved candidates.
 - 1.4.3. Five (5) individuals from the pre-approved pool to review any positive test results, assess penalties, and hear any appeals.
- 1.5. “Residue Avoidance Committee and Substance Screening Committee” and “Official Show Testing Veterinarian” will coordinate to secure all supplies to facilitate collection of specimen samples and maintain the integrity of the chain of custody of samples up to submission to the lab(s).

2. During the Show

- 2.1. Only RCFA owned coolers and/or refrigerator with freezer will be used to store samples.
 - 2.1.1. All storage coolers and/or refrigerator with freezer will be double pad locked.
 - 2.1.1.1. Separate lock/key will be maintained by “Official Show Testing Veterinarian” and the “RCFA Executive Member on duty”.
 - 2.1.1.2. No individual will have sole access to stored specimens at any time.
 - 2.1.1.3. The secondary samples will be frozen and held pending results from primary lab.
 - 2.1.2. All coolers and/or refrigerators will be maintained in a restricted access area during the show.
- 2.2. All supplies used in collection of samples shall be maintained in a secure restricted access area during the show.
- 2.3. All Grand Champions and Reserve Grand Champions, will be automatically drug tested.
- 2.4. A random animal in each market species will also be drug tested.
- 2.5. A designated area for collecting specimen samples will be established by “Residue Avoidance Committee and Substance Screening Committee Member”.
- 2.6. “Residue Avoidance Committee and Substance Screening Committee Member” will continually escort animal and exhibitor until specimen sample is obtained. Therefore, animal and exhibitor must report immediately to the designated testing area.
 - 2.6.1. Refusal to report immediately to the designated testing area will be considered a Level 3 violation.
- 2.7. Parent (or adult guardian) and exhibitor must be present when the specimen(s) is collected.
 - 2.7.1. Parent (or guardian) and exhibitor must sign tamper proof tape to be placed on sample(s)
 - 2.7.2. Once in cooler the parent, exhibitor, and “Official Show Testing Veterinarian” sign carbon triplicate form that identifies the animal tested and affirms that the sample was collected from that animal, that they witnessed it being placed in the cooler, and that the seal was unbroken on the sample going into the cooler.
 - 2.7.2.1. One (1) copy is given to Parent/Exhibitor.
 - 2.7.2.2. One (1) copy is retained by show.
 - 2.7.2.3. One (1) copy forwarded to Lawyer with logbook.

3. After the Show

- 3.1. Primary samples are submitted to primary lab by “Official Show Testing Veterinarian” and “Committee Member”.
 - 3.1.1. Texas A&M Veterinary Medical Diagnostic Laboratory will serve as the initial testing laboratory.
 - 3.1.2. Lab results are to be sent directly to a designated Executive Committee member.
- 3.2. If positive results are received on primary sample the designated Executive Committee member will instruct “Official Show Testing Veterinarian” and “Committee Member” to submit positive secondary samples plus one (1) additional randomly selected secondary samples to the secondary lab.
 - 3.2.1. The designated Executive Committee member will only provide samples with two conclusive positive results to the “Drug Test Review and Appeals Panel” for violation consideration.
- 3.3. A five (5) member “Drug Test Review and Appeals Panel” will be provided the results of matching positive tests by the designated Executive Committee member.
 - 3.3.1. Each will rate the severity of the violation on a scale of 0 to 3 based solely on the information provided on the test results.
 - 3.3.1.1. Level 0 – no penalty to exhibitor
 - 3.3.1.2. Level 1 – loss of resale value of project
 - 3.3.1.3. Level 2 – loss of resale value of project and forfeiture of premium money.
 - 3.3.1.4. Level 3 – loss of resale value of project, forfeiture of premium money, and permanent disbandment from participation in future shows.
 - 3.3.2. An average score from the five (5) members will determine punishment level; rounded down to the nearest whole number.
 - 3.3.3. Exhibitors previously found in violation will have their violation level elevated on subsequent offences.
 - 3.3.3.1. Two (2) Level 1 violations will result in a Level 2 punishment.
 - 3.3.3.2. Two (2) Level 2 violations will result in a Level 3 punishment.
 - 3.3.3.3. Any combination of a Level 1 and 2 violations will result in a Level 3 punishment.
 - 3.3.4. The lawyer will then notify exhibitors of the positive test results and the penalties determined by the “Drug Test Review and Appeals Panel” by letter sent certified return receipt.
 - 3.3.5. Any exhibitor who disagrees with the findings may appeal the findings as outlined in the notification letter.

- 3.4. Should an exhibitor choose to appeal; the “Drug Test Review and Appeals Panel” will listen to their justification of how the positive test occurred and consider any additional documentation the exhibitor chooses to provide.
 - 3.4.1. The exhibitor and their family will waive all rights to confidentiality in this matter and provide a release of liability to RCFA in order for their appeal to be heard.
 - 3.4.2. The “Drug Test Review and Appeals Panel” may ask questions of the appealing exhibitor or their family if they so choose.
 - 3.4.3. The “Drug Test Review and Appeals Panel” will discuss the situation once the exhibitor and their family have left and make a decision regarding the positive test and the information provided through the appeal process. The lawyer will notify the exhibitors by letter sent via certified mail, return receipt requested of the decision of the “Drug Test Review and Appeals Panel” and any punishment level deemed necessary.
 - 3.4.4. The decision of the “Drug Test Review and Appeals Panel” after appeal is final.
- 3.5. All exhibitors’ checks will be held until all residue avoidance issues have been decided.
 - 3.5.1. Confidentiality agreements will be signed by all RCFA office staff and board members.
 - 3.5.2. The lawyer will request the checks of all exhibitors who had their secondary samples submitted to the lab.
 - 3.5.3. Should the “Drug Test Review and Appeals Panel” determine an infraction warrants the withholding of funds from an exhibitor; the lawyer will facilitate that.
- 3.6. All tested animals will be held until they are determined to be safe to enter the food chain or be appropriately disposed of.
- 3.7. Results of the RCFA Residue Avoidance program will not be discussed.

