EXHIBIT 66

UNITED STATES
National Residue Program

2009 RESIDUE SAMPLE RESULTS

United States Department of Agriculture
Food Safety and Inspection Service
Office of Public Health Science

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APPENDIX II: Summary of U.S. NRP Scheduled Sampling Data from 2006-2008 (*Continue)*

ACKNOWLEDGEMENTS

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Additionally, FSIS would like to thank the agency's laboratory staff located at Eastern Laboratory in Athens, GA; the Midwestern Laboratory in St. Louis, MO; and the Western Laboratory in Alameda, CA, who prepared and analyzed the residue samples, and documented the results. FSIS Field Services Laboratories coordinate and conduct laboratory analytical services in support of the Agency's strategy to maintain food safety in meat, poultry, and egg products along the farm-to-table continuum.

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EXECUTIVE SUMMARY

2009 United States National Residue Program Data

The 2009 United States National Residue Program (U.S. NRP) examined 128 chemical compounds, including 78 veterinary drugs, 45 pesticides, and five environmental contaminants. All chemical compounds were analyzed at one of three FSIS International Standardization Organization (ISO)-accredited laboratories: the Eastern Laboratory in Athens, GA; the Midwestern Laboratory in St. Louis, MO; and the Western Laboratory in Alameda, CA.

The majority of violations detected by the 2009 domestic scheduled sampling plan were illegal levels of approved animal drugs, particularly sulfonamides and antibiotics, used to prevent or treat bacterial infections. Most of these violations were confined to a relatively small percentage of production classes that make up the meat and poultry supply. Most drug-residue violations result from an inadequate withdrawal time for the drugs to clear the animal's system. Detected illegal residues are usually concentrated in kidney and liver tissue rather than in muscle meat.

The U.S. NRP consists of two sampling programs: domestic and import. The domestic sampling program consists of scheduled sampling and inspector-generated sampling. The results from the sampling program showed 1,528 residue violations; there were 21 violations from the scheduled sampling (< 2%) and 1,507 violations from the inspector-generated program (~98%). The import program reported one violation out of 3,872 samples.

FSIS field personnel collected 17,241 samples under the domestic scheduled sampling program, representing 60 compounds in 23 animal product classes. No residues were detected in approximately 97% of the domestic scheduled samples. The scheduled sampling program reported 21 residue violations (0.12%) in the following: one beef cow, two bob veal, two bulls, one dairy cow, one formula fed veal, one goat, one heavy calf, one market hog, five non-formula fed veal, four roaster pigs, and two steers. Of the 21 residue violations, six were attributed to sulfas, five were attributed to antibiotics, two each were attributed to avermectins, carbadox, four were attributed to florfenicol, and one each were attributed to nitorfurans, and pesticide, respectively.

The scheduled sampling program identified 473 samples with non-violative positive residue levels (i.e., samples tested positive for residue, but below the tolerance level) — this constitutes 2.74% of all samples taken. Among individual chemical compound classes, the percentage of samples with detectable residues ranged from 0 to 6.48%. The chemical compound class accounting for most of the samples with detectable residues was tetracycline (23% of the 473 non-violative positive samples). Neomycin ranked the second highest (21%) and arsenic ranked third (18%). Non-violative residue samples were detected most frequently in the following production classes: roaster pigs, young chickens (all arsenic), and market hogs.

Under the inspector-generated program, FSIS field personnel collected 151,233 samples. FSIS labs reported 1,507 residue violations in 1,105 animals (a single animal may have multiple violations because multiple tissues can be submitted from each animal and multiple residue analyses may be conducted on the same sample) from the following product classes: 53 beef cows, nine bulls, 250 bob veal, 750 dairy cows, two formula fed veal, four goats, 14 heavy calves, 11 heifers, two non-formula fed veal, one sow, eight steers. Penicillin was the chemical with the highest number and percentage of residue violations across the inspector-generated program (379 or 25%). Additionally, FSIS labs reported flunixin (242 or 16%) and sulfadimethoxine (177 or 11%) violations under the inspector-generated program.

Furthermore, there were 3,040 samples reported as non-violative positives. The highest percentage of non-violative positive samples was attributed to neomycin (41%). Tetracycline was the second highest chemical detected (16%) and dihydrostreptomycin was ranked third (13%). The top three animal production classes per number of non-violative positive samples include bob veal, dairy cows, and beef cows.

The inspector-generated samples are screened in-plant using either the Fast Antimicrobial Screening Test (FAST) or the Kidney Inhibition Swab Test (KIS™) screening method. Positive samples are sent to an FSIS laboratory for confirmation. Alternatively, samples may be sent directly from the plant to the FSIS laboratories for analysis (e.g., COLLGEN). FAST testing kits detected 63%, or 951 of 1,507 total inspector-generated violation samples,compared to 36%, or 535 of 1,507 violations, detected by the KIS™ test kits. Out of 3,040 non-violative positive samples analyzed under inspector-generated samples, 1,792 (59%) were associated with KIS™, compared to 1,170 (39%) detected using the FAST screen.[1]

Regarding conclusions about violations in specific states or regions, it is important to note two points. First, violations within a state are likely correlated with the number and type of animals slaughtered. Second, food animals are not always reared in a single state or region. The U.S. NRP database discloses the "plant state" (i.e., plant location by U.S. state) and the "produce state" (i.e., the last state in which the animal lived prior to being sent to slaughter).

Overall, 54% of the FAST violations[2] had a matching status between the produce state and the plant state. The highest FAST violations occurred in California, Wisconsin, and Pennsylvania. Twenty-seven % of the FAST violations showed no matching status and 19% of the FAST violations lacked the produce state information (mostly in Pennsylvania). The plant state and produce state were matched for several of the FAST violation states, except in Georgia, New Jersey, and South Carolina. A correlation is likely between the number of violations and the slaughter volume per animal class by state.

[1] KIS™ was first implemented in July 2009 and limited to bovine plants.
[2] "Violations" are lab-confirmed.

Half of the Wisconsin FAST violations showed no matching status between the produce state and the plant states.

Similarly, 74% of the KIS™ violations matched between the produced state and the plant state. The highest KIS™ violation occurred in Ohio, California, and Wisconsin respectively. Sixteen % of the KIS™ violations showed no matching status, while 10% of the KIS™ violations lacked the produced state information (mainly in Pennsylvania). The plant state and the produced state were matched for several of the KIS™ violations states except, in South Carolina and Washington. The KIS™ state violations appear to correlate to the state slaughter volume per animal class. Half of the Wisconsin KIS™ violations showed no matching between the produced state and the plant states.

FSIS plans and administers a national import reinspection program. After the U.S. Customs Service and the USDA Animal and Plant Health Inspection Service (APHIS) requirements are met, shipments imported into the United States must be reinspected by FSIS at an approved import inspection facility. FSIS inspectors carry out reinspection in approximately 117 official import establishments. The import sampling program analyzed approximately 121 chemical residues from 13 compound classes of veterinary drugs and pesticides. Of the 3,872 samples analyzed, one violation of avermectin was detected. The samples came from products that were imported from 28 countries eligible for exportation to the United States.

FSIS continually strives to improve methods for reporting the U.S. National Residue Program data. These reports are publicly available online on the FSIS website at: www.fsis.usda.gov/Science/Chemistry/index.asp. Additional copies of the annual report may be obtained by calling FSIS at (202) 690-6409.

ACRONYMS

ADRS – Automated Disposition Reporting System

AIIS – Automated Imported Information System

AMS – Agriculture Marketing Service

APHIS – Animal and Plant Health Inspection Service

ARS – Agriculture Research Service

CDC – Centers for Disease Control and Prevention

CHCs – Chlorinated hydrocarbons

COPs – Chlorinated organophosphates

COLLGEN – Inspector Generated Samples sent directly to the laboratory

CRRB – Chemical Residue Risk Branch

CVM – Center for Veterinary Medicine

DCA – Desfuroylceftiofur Acetamide

DCCD – Desfuroylceftiofur Cysteine Disulfide

DW – FSIS Data Warehouse

ECD – Electron Capture Detection

ELISA –Enzyme Linked Immunosorbent Assay

FAST – Fast Antimicrobial Screening Test

FDA – Food and Drug Administration

FSIS – Food Safety and Inspection Service

EPA – Environmental Protection Agency

GC – Gas Chromatography

GPC – Gel Permeation Chromatography

HPLC – High performance liquid chromatography

HACCP – Hazard Analysis and Critical Control Points

IIC – Inspector in Charge

IID – Import Inspection Division

IG – Inspector Generated Sampling Plan

KIS™ – Kidney Inhibition Swab Test

LEARN – Laboratory Electronic Application for Results Notification

LIMS – Laboratory Information Management System

MARCIS – Microbiological and Residue Computer Information System

MDL – Method Detection Limit

MPL – Minimum Proficiency Level

NASS – National Agricultural Statistics Service

NRP – National Residue Program (Domestic & Import)

NSAID – Non-Steroidal Anti-inflammatory Drug

OCIO – Office of the Chief Information Officer

OFO – Office of Field Operations

OPHS – Office of Public Health Science

PCBs – Polychlorinated biphenyls

PHV – Public Health Veterinarian

PPB – Parts per billion

PPM – Parts per million

RAD – Risk Assessment Division

RVIS – Residue Violation Information System

SAT – Surveillance Advisory Team

STATE – State or Government Agency Testing

SHOW – Show Animals

SULFAS – Sulfonamides compounds

TLC – Thin Layer Chromatography

TOI – Type of Inspection

INTRODUCTION

The 2009 United States National Residue Program (U.S. NRP) data summary (*Red Book*) provides the residue sampling results (domestic and import) for testing chemical compounds in food animals produced domestically or imported into the United States.

The U.S. NRP is a collaborative interagency program established to protect the public from harmful levels of chemical residues in meat, poultry, and egg products produced in or imported into the United States. The U.S. NRP is designed to: (1) provide a structured process for identifying and evaluating chemical compounds of concern in food animals; (2) analyze chemical compounds of concern; (3) collect and report results; and (4) provide appropriate regulatory follow-up of reports of violative levels of residues.

The Food Safety and Inspection Service (FSIS), the Environmental Protection Agency (EPA), and the Food and Drug Administration (FDA) are the federal agencies primarily involved in managing this program. The EPA and FDA have statutory authority for establishing residue tolerances through regulations that limit the quantity of a chemical for the protection of public health.[1] The FDA, under the Federal Food, Drug, and Cosmetic Act, establishes tolerances or action levels for veterinary drugs, food additives, and environmental contaminants. The EPA, under the Federal Insecticide, Fungicide, and Rodenticide Act (as modified by the Food Quality Protection Act), establishes tolerance levels for registered pesticides. Through the Federal Meat Inspection Act, the Poultry Products Inspection Act, and Egg Products Inspection Act, FSIS regulates the safety of meat, poultry, and egg products produced in federally inspected establishments or imported into the United States.

The U.S. NRP tests for chemical compounds, including approved (legal) and unapproved (illegal) veterinary drugs, pesticides, and hormones, as well as environmental compounds that may appear in meat, poultry, and egg products. FSIS, FDA, EPA, and other federal agencies, including USDA's Agricultural Research Service (ARS), USDA's Agricultural Marketing Services (AMS), and Centers for Disease Control and Prevention (CDC), create an annual sampling plan based on the previous U.S. NRP, information accumulated during investigations, and FDA veterinary drug inventories completed during on-farm visits. The agencies create and rank a list of chemical compounds for testing animals using mathematical algorithms that include variables for public health risk and regulatory concern. The agencies decide on the chemical compounds to test and the food animals to evaluate. FSIS laboratory capacity and analytical methods are considered when devising a final sampling plan, which is published every year as the U.S. NRP Scheduled Sampling Plan (*Blue Book*).

[1] Title 40 CFR includes tolerance levels established by EPA; Title 21 CFR includes tolerance levels established by FDA.

Since 1967, FSIS has administered the U.S. NRP by collecting samples from meat, poultry, and egg products and analyzing the samples at one of three FSIS laboratories. A violation occurs when an FSIS laboratory detects a chemical compound level in excess of an established tolerance or action level in a sample. FSIS shares laboratory findings that exceed established tolerances and action levels with FDA and EPA. FSIS assists FDA, which has jurisdiction on-farm, in obtaining the names of producers and other parties involved in offering the animals for sale. FSIS informs producers through certified letters that an animal from their business has tested positive for violative residues. FSIS utilizes the Residue Violation Information System (RVIS), a nationwide interagency computerized information system.

The FDA and cooperating state agencies investigate producers linked to residue violations. If a problem is not corrected, subsequent FDA visits could result in enforcement action, including prosecution. FSIS posts a Residue Violator Alert List on its website, listing the names and addresses of parties that the FDA has determined are responsible for more than one veterinary drug, pesticide, or other chemical residue violation during a 12-month period. The names and addresses of repeat violators remain on the FSIS website for 12 months following FDA confirmation.

Beginning in August 2009 and at the request of industry, FSIS updates the Same Source Supplier-Residue Violators List on a weekly basis with the establishments and producers associated with more than one violation on a rolling 12-month basis. This list varies from the Residue Violator Alert List because it allows industry to react in real time to current violations and contains a tally of all violations recorded during the 12-month period indicated. Because FSIS updates this list weekly, FDA may not have investigated or confirmed each violation. These lists provide helpful information to processors and producers working to avoid illegal levels of residues, serve as deterrents for violators, and enable FSIS and FDA to make better use of resources.

A chemical residue prevention program is essential to encourage the prudent use of veterinary drugs and pesticides. In the late 1990's, FSIS implemented the Hazard Analysis and Critical Control Points (HACCP) inspection system in all federally inspected establishments to verify chemical residue control. The HACCP regulation (9 CFR 417) requires slaughter and production establishments to identify all food safety hazards, including drug residues, pesticides, and chemical contaminants, that may occur before, during, and after entry into the establishment. The regulation determines preventive measures that the establishment can apply to control these hazards. FSIS takes regulatory action against establishments that do not have an adequate chemical residue control program in place.

SAMPLING PLANS OF THE U.S. NATIONAL RESIDUE PROGRAM

The U.S. NRP focuses on a domestic sampling plan and import reinspection. These plans are subdivided to facilitate the management of chemical residues, such as veterinary drugs, pesticides, and environmental contaminants, in meat, poultry, and egg products. The domestic sampling plan includes scheduled sampling and inspector-generated sampling. The import reinspection sampling plan is divided into normal sampling, increased sampling, and intensified sampling.

Domestic Sampling Plan

Scheduled Sampling

Under the scheduled sampling plans, inspectors randomly sample tissue from animals that pass ante-mortem inspection. FSIS generate scheduled sampling plans using FSIS Form 10,210-3. The development of scheduled sampling plans proceeds in the following manner: (1) identify which chemical compounds are of concern to food safety; (2) use algorithms to rank the selected chemical compounds; (3) pair these chemical compounds with appropriate food animal and egg products; and (4) establish the number of samples to be collected. At its annual meeting, the Surveillance Advisory Team (SAT) determines the compound/production class pairs.[1] FSIS calculates the number of samples needed for the scheduled sampling. Since the 2006 NRP, FSIS began sampling 230 or 300 animals for each compound/production class pair. This sampling rate assures a 90 percent and 95 percent probability, respectively, to detect residue violations if the violation rate is equal to or greater than 1 %. The resulting violation data verifies industry process controls and HACCP plans to control residues effectively. FSIS, FDA, and EPA review and make final adjustments to the sampling plan.

Scheduled sampling programs include:

Exposure Assessments[2]

Exposure Assessments:

- guide FSIS decision to condemn carcasses with violative levels of residues;
- guide FDA regulatory decisions for a sample containing violative levels of residues and to determine action against producers;
- guide industry decisions to retain product until the sample has been tested; and
- guide industry decisions to recall a product that was not retained while the sample was tested and found to contain violative levels of residue.

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[1] Compound = chemical compounds; Production Class =food animals and egg products

[2] This sampling program provides data that could be used to conduct exposure assessments for chemical compounds in food animals and egg products.

Exploratory Assessments[1]

***Exploratory Assessments*:**

- reinvestigate animal populations from ongoing or previous exposure assessments if the violation rate is confirmed at one percent or greater;
- investigate animal populations when the compounds in question have no established tolerances; and
- respond to intelligence reports from the FDA/CVM field.

Inspector-Generated Sampling

Inspector-generated sampling is conducted by in-plant Public Health Veterinarians (PHVs) using FSIS Form 10,000-2 when the PHV suspects that an animal may have violative levels of chemical residues. Currently, inspector-generated sampling targets *individual suspect animals* and *suspect populations of animals*. When an inspector-generated sample is collected, the carcass is held pending the results of laboratory testing. If violative residues levels are confirmed, the carcass is condemned.

Sampling for Individual Suspect Animals and Suspect animal Populations

The in-plant inspector selects a carcass for sampling based on professional judgment and public health criteria[2]. Currently, inspector-generated sampling targets *individual suspect animals* and suspect *populations of animals*. When an inspector-generated sample is collected, the carcass is held pending laboratory testing results. If violative residue levels are confirmed, the carcass is condemned.

Sampling for suspect animal populations is generally directed by an FSIS regulation, directive (e.g., FSIS Directive 10,800.1), or notice.

Import Reinspection Sampling Plan

All imported products are subject to reinspection. The Port-of-Entry Reinspection Program is a chemical residue-monitoring program conducted to verify the equivalence of inspection systems in exporting countries. Under this program, inspectors conduct one or more types of inspection (TOI) on every lot of product, namely meat, poultry, and egg products, before it enters the United States. The following are the three levels of chemical residue reinspection:

- Normal sampling is defined as random sampling from a lot;
- Increased sampling is defined as above-normal sampling as the result of an Agency management decision; and

[1] The exploratory assessments are sampling programs designed to target chemical compounds of public health concern.

[2] Outlined in FSIS Directives 10,800.1 and 10,220.3 and includes animal disease signs and symptoms, producer history, or results from random scheduled sampling.

- Intensified sampling is defined as occurring when a previous sample for a TOI failed to meet U.S. requirements.

For both normal and increased sampling, the lot is not required to be retained pending laboratory results; however, the importer may choose to retain the lot pending the laboratory results. The lot is subject to recall if it is not retained and is found to contain violative levels of residue. For intensified sampling, the lot must be retained pending laboratory results. The data obtained from laboratory analyses are entered into the Automated Import Information System (AIIS), an FSIS database designed to generate reinspection assignments, receive and store results, and compile histories for the performance of foreign establishments certified by the inspection system in the exporting country.

Estimated Livestock, Poultry, and Egg Products

Consumption Data

Table 1 and Figure 1 present the number of head slaughtered or pounds of eggs processed, pounds per animal (dressed weight), total pounds (dressed weight), and the percent estimated relative consumption of domestic and exported product for each production class.

Table 1. 2009 Estimated Relative Consumption Data by Production Class

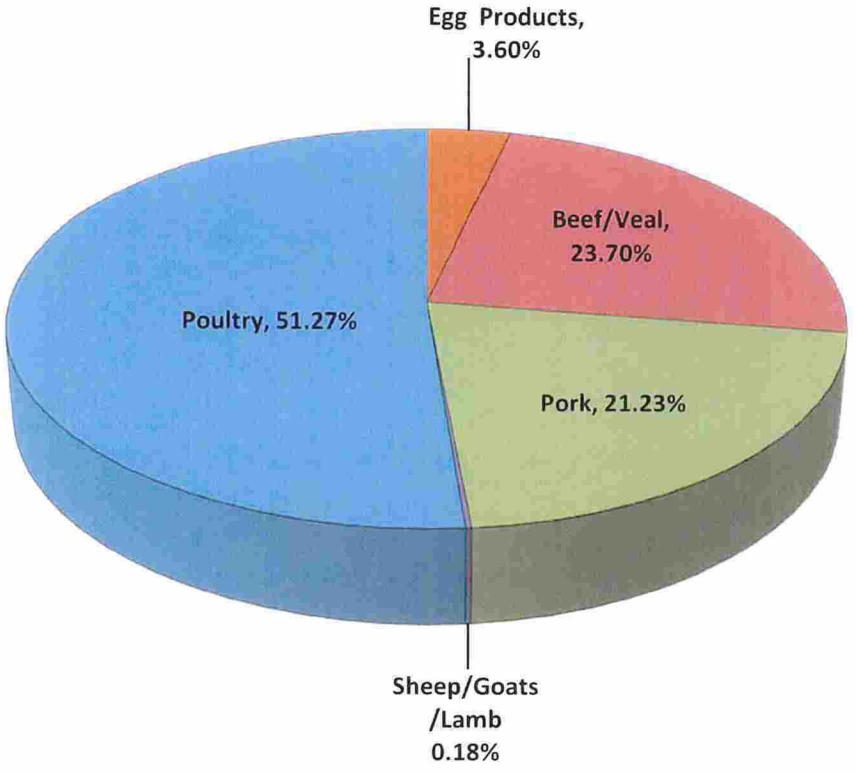
Production Class	Number of Head Slaughtered [1]	Pounds per Animal (dressed weight) [2]	Total Pounds (dressed weight)	Percent Estimated Relative Consumption
Bulls	583,728	878	512,513,184	0.470
Beef Cows	3,331,889	610	2,032,452,290	1.865
Dairy Cows	2,826,637	610	1,724,248,570	1.582
Heifers	9,739,581	782	7,616,352,342	6.988
Steers	16,290,325	847	13,797,905,275	12.660
Bob Veal	520,783	75	39,058,725	0.036
Formula-fed Veal	370,454	245	90,761,230	0.083
Non-formula-fed Veal	15,999	350	5,599,650	0.005
Heavy Calves	29,453	400	11,781,200	0.011
SUBTOTAL, CATTLE	**33,708,849**		**25,830,672,466**	**23.700**
Market Hogs	108,206,020	203	21,965,822,060	20.154
Roaster Pigs	753,423	70	52,739,610	0.048
Boars/Stags	449,713	199	89,492,887	0.082
Sows	3,352,852	306	1,025,972,712	0.941
SUBTOTAL, SWINE	**112,762,008**		**23,134,027,269**	**21.225**
Sheep	2,159,338	70	151,153,660	0.139
Lambs	154,153	64	9,865,792	0.009
Goats	651,783	50	32,589,150	0.030
SUBTOTAL, OVINE	**2,965,274**		**193,608,602**	**0.178**
Bison	53,510	610	32,641,100	0.030
TOTAL, ALL LIVESTOCK	**149,489,641**		**49,190,949,437**	**45.133**
Young Chickens	8,544,285,285	Not Reported	47,776,488,239	43.835
Mature Chickens	138,692,395	Not Reported	796,037,624	0.730
Young Turkeys	245,590,672	Not Reported	7,099,906,243	6.514
Mature Turkeys	1,810,634	Not Reported	47,820,431	0.044
Ducks	22,896,447	Not Reported	153,923,719	0.141
Geese	178,434	Not Reported	2,489,307	0.002
Other Fowl (includes squab)	2,953,823	Not Reported	2,923,171	0.003
SUBTOTAL, POULTRY	**8,956,407,690**		**55,879,588,734**	**51.269**
Rabbits	271,415	Not Reported	1,287,878	0.001
Egg Products	Not Applicable	Not Applicable	3,920,140,000[3]	3.597
GRAND TOTAL in POUNDS, ALL PRODUCTION CLASSES			**105,075,746,189**	**100**

1-Number of heads is obtained from the Animal Disposition Reporting System (ADRS).

2-Average dressed weights are obtained from the publication, "Livestock Slaughter 2008 Summary", National Agricultural Statistics Service (NASS), March 2010. In instances when the average weight is not available, an average weight based on the previous calendar year's data was imputed.

3- Fiscal Year 2009

Figure 1. 2009 Estimated Relative Consumption Data by Production Class[1]



[1] FSIS employs techniques and principles from the field of risk analysis to determine the relative public health concerns associated with the data obtained in the scheduled sampling plan. The information on the residue prevalence and residues concentration is combined with consumption data to estimate exposure.
Exposure = Consumption Data x Chemical Residue Levels

Definitions of FSIS Production Classes

Bovine

- Beef cows are mature female cattle bred for muscle development, ordinarily having given birth to one or more calves.
- Bulls are mature, uncastrated male cattle.
- Calves/veal definitions are under FSIS review.
- Dairy cows are mature female cattle bred for milk production, ordinarily having given birth to one or more calves.
- Heifers are young, female cattle that have not yet given birth to a calf.
- Steers are male cattle castrated before sexual maturity.

Porcine

- Boars are mature swine showing male sexual characteristics.
- Market hogs are swine usually marketed near six months of age and are 200 to 300 pounds live weight.
- Roaster pigs are animals of both sexes and any age that are marketed with the carcass unsplit and with the head intact.
- Sows are mature female swine ordinarily having given birth to one or more litters.
- Stags are male swine castrated after they have reached sexual maturity.

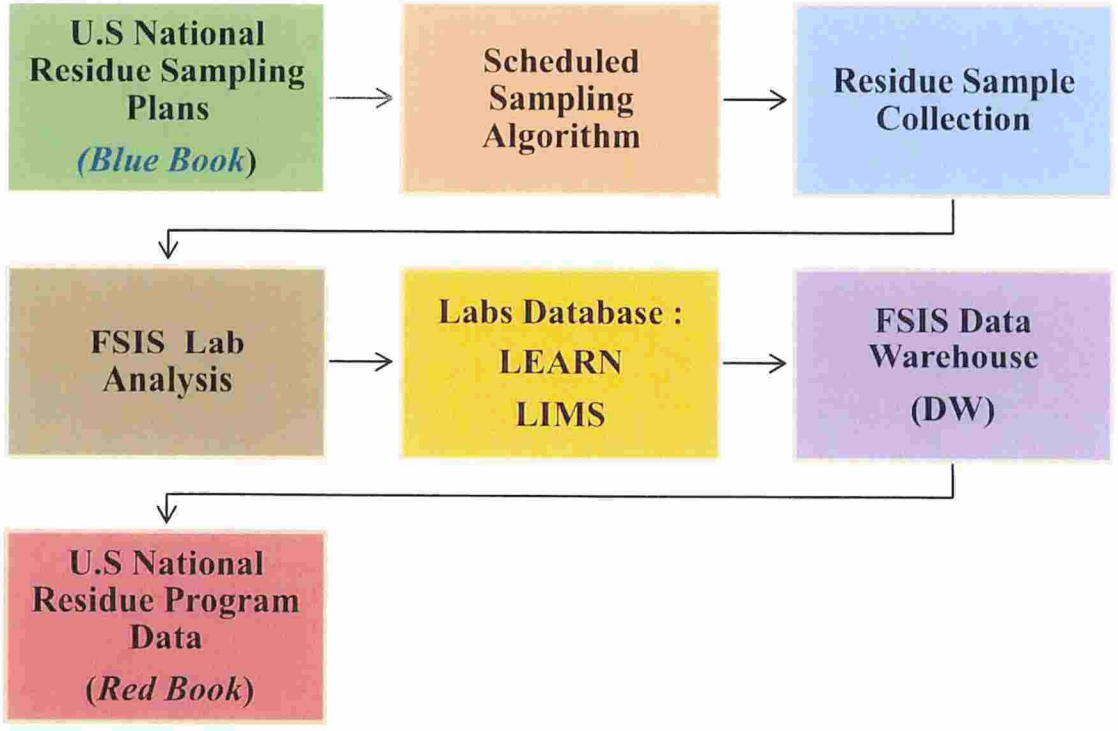
Poultry

- Ducks are birds of both sexes and any age.
- Egg products are yolks, whites, or whole eggs after breaking and processed as dried, frozen, or liquid.
- Geese are birds of both sexes and any age.
- Mature chickens are adult female birds, usually more than 10 months of age.
- Mature turkeys are birds of both sexes and usually more than 15 months of age.
- Other poultry include ratites (typically ostriches, emus, and rheas), guineas, squabs (young, unfledged pigeons), adult pigeons, pheasants, grouse, partridge, quail, etc.
- Young chickens include broilers/fryers birds of both sexes that are usually less than 10 weeks of age; roasters are birds of both sexes usually less than 12 weeks of age; and capons are surgically castrated male birds, usually less than 8 months of age.
- Young turkeys include fryer/roaster birds that are of both sexes and usually less than 12 weeks of age, and include turkeys that are birds of both sexes, usually less than six months of age.

Other

- Goats are animals of both sexes and any age.
- Lambs are defined as sheep younger than 14 months and having a break joint in at least one leg.
- Other livestock include bison, deer, and elk, which are under voluntary inspection
- Rabbits are any of several lagomorph mammals of both sexes, any age, and are under voluntary inspection.
- Sheep are mature animals of both sexes.

Figure 2. U.S. NRP Domestic Scheduled Samples Flow Chart



Note: The residue sample results with violation are also reported in the Residue Violation Information System (RVIS); a system used by FSIS and FDA.

Outlines of U.S. NRP Domestic Scheduled Samples Logistics

- The U.S. NRP process begins with the Surveillance Advisory Team (SAT), which consists of members from FDA, EPA, FSIS, CDC, AMS, and ARS.
- Risk analysis principles are used to select and prioritize compounds, select compound/production class pairs, and select the number of animals in each production class to be tested for the following year.
- The Office of the Chief Information Officer (OCIO) establishes sampling frames for sample collection that randomly select USDA-FSIS federally inspected and state-inspected establishments managed by the FSIS Federal-State Cooperative Program.
- Federal inspectors from FSIS Office of Field Operations (OFO) and state inspectors randomly select healthy-appearing animals that have passed ante-mortem inspection and send the samples to FSIS laboratories for screening, quantification, and confirmation.
- The Chemical Residue Risk Branch (CRRB) compiles and analyses the data as exposure assessments based on statistical sampling.

Domestic Scheduled Sampling

Sampling Methodology:
CRRB determines the sample size per production/compound through the NRP annual sampling plans. CRRB assigns an integer number to eligible plants depending on the size of the plant. These numbers are proportional to the size of the establishment, which determines the maximum number of times an establishment may be sampled in a month. An establishment with a single integer number is eligible for sampling at most once. An establishment assigned with multiple integer numbers may be sampled multiple times.

Algorithm Frequency:
One algorithm determines the number of samples collected, regardless of a product class/compound pairing. To be eligible for sampling, the establishment must meet a minimum volume of production. Total volume production includes all production, regardless of establishment eligibility. Probability of selection is related to an establishment's slaughter volume in the previous 12 to 15 months.

Number of Samples:
The 2009 U.S. NRP Scheduled Sampling Plans (i.e., *Blue Book*) reports annual sample size per species. An annual plan to collect 300 samples requires that 25 samples be taken every month (300/12). When the annual sampling plan does not divide evenly, the monthly sampling plan is rounded up. For no response, the algorithm selects other establishments for residue scheduled sampling. In addition, the algorithm schedules additional samples to accommodate the anticipated non-response scenario.

Appendix II provides the number of samples required to ensure the detection of a violation. Using a binomial distribution with the sample size "n" and the violation rate "v" (in decimal number), the probability p, of finding at least one violation among the n samples (assuming random sampling) is: $p = 1-(1-v)^n$. Therefore, if the true violation rate is 1% (i.e. 0.01), the probabilities of detecting at least one violation with sampling levels of 230 or 300 are 0.90 and 0.95 confidence level respectively.

Inspector-Generated Sampling

FSIS inspectors collect samples (kidney, liver, muscle, fat, and egg product).
Samples screened in-plant using:

- Antimicrobial Screening Test (FAST)
- Kidney Inhibition Swab (KIS™) Test — Implemented in bovine production class.

Lab screening methods are useful tools to indicate whether the residues are present in the sample. FAST or KIS™ samples that test positive are sent to FSIS laboratories and analyzed using "determinative and confirmatory" methods. Confirmatory methods are used to verify the chemical identity of the residue detected. These chemicals are quantified using a determinative method.

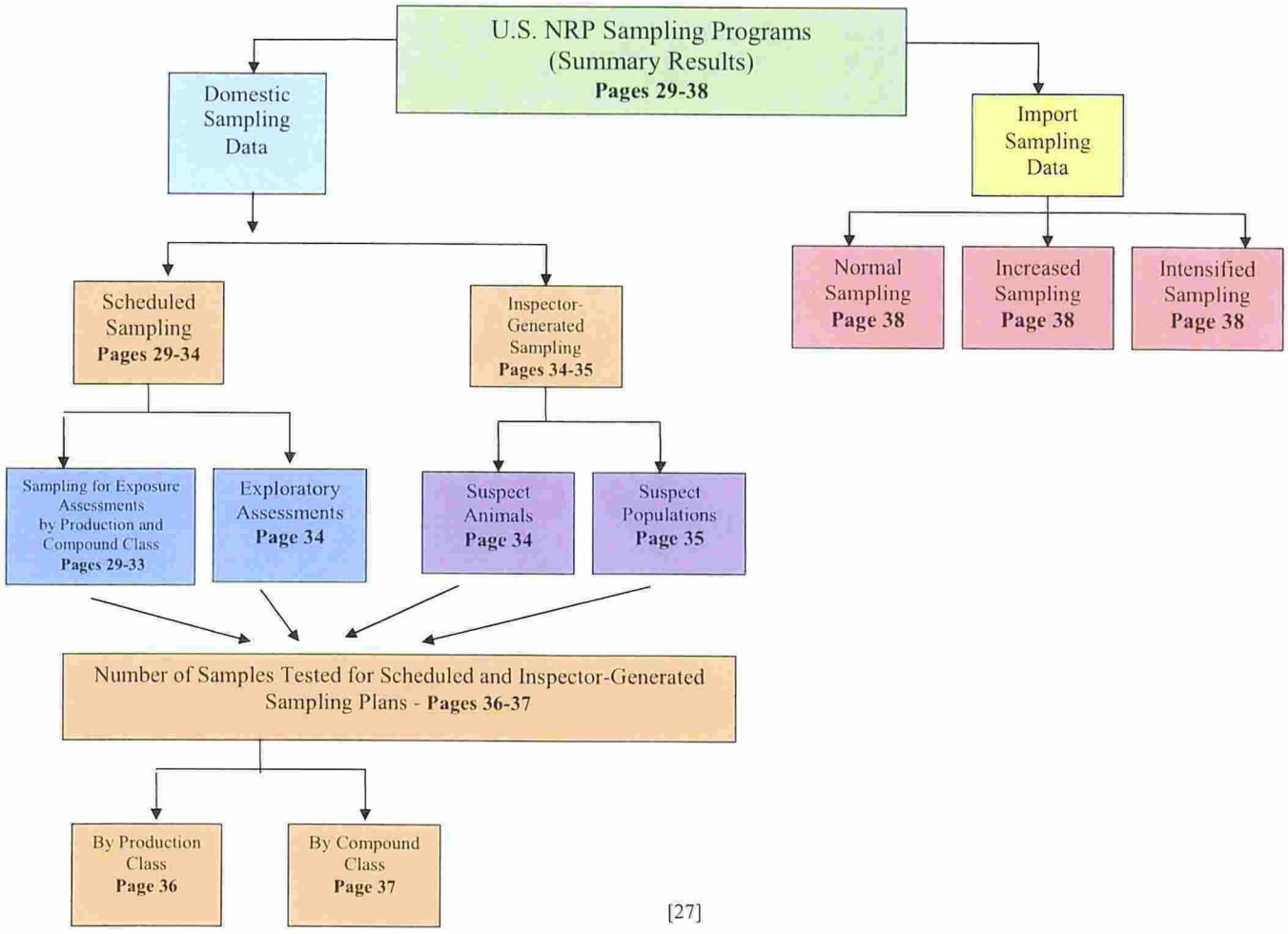
- Samples sent to and analyzed by FSIS laboratories (COLLGEN).

Under the domestic (scheduled and inspector-generated) sampling program, laboratory analysts enter, review, and approve sample results in the Laboratory Information Management System (LIMS). The "Sample Scheduled" tool in LIMS provides faster laboratory turn around time for results. After entry into LIMS, the data is exported to a data warehouse (DW), an FSIS centralized repository for historical and statistical data. FSIS extracts the residue sample results from the FSIS DW and uses it to prepare the annual U.S. NRP (*Red Book*).

FSIS Laboratory Analyses

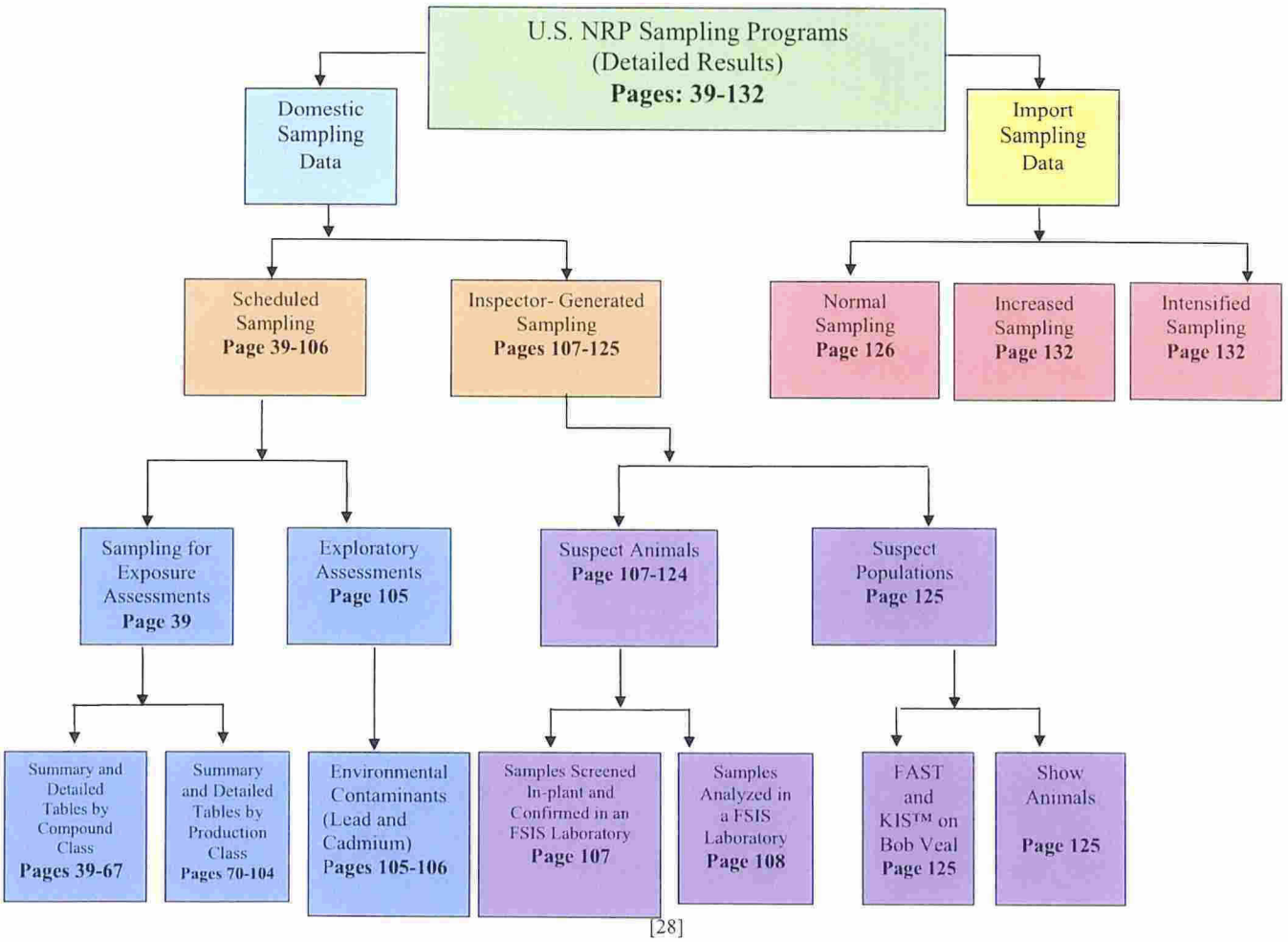
- The Eastern Laboratory, Athens, GA analyzes for arsenicals, avermectins, chloramphenicol, florfenicol, lead and cadmium, as well as sulfonamides, nitroimidazoles, and thyreostats.
- The Midwestern Laboratory, St. Louis, MO analyzes for antibiotics, flunixin, sulfonamides, trenbolone, and zeranol.
- The Western Laboratory, Alameda, CA analyzes for *beta*-Agonists, carbadox, chlorinated hydrocarbons (CHCs), chlorinated organophosphates (COPs), and nitrofurans.

Figure 3. 2009 U.S. NRP Sampling Program: Summary Results



[27]

Figure 4. 2009 U.S. NRP Sampling Program: Detailed Results



SUMMARY OF DOMESTIC DATA

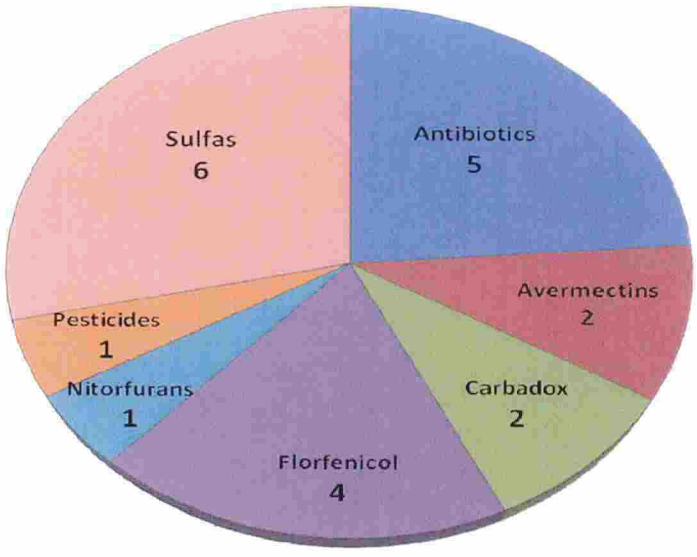
Scheduled Sampling

Sampling for Exposure Assessments

In 2009, FSIS laboratories analyzed 128 chemical compounds of veterinary drugs and pesticides. Of the 17,241 samples analyzed, the NRP identified 21 chemical residue violations: antibiotics (5), avermectins/milbemycins (2), carbadox (2), florefenicol (4), nitrofurans (1), pesticides (PBDE) (1), and sulfonamides (6).

FSIS laboratories found no residue violations for arsenic, *beta*-Agonists, chloramphenicol, flunixin, nitroimidazoles, thyreostats, trenbolone, and zeranol. This section reports the summary results from the domestic scheduled sampling plan by production class and compound class.

Figure 5. 2009 Scheduled Samples: Residue Violations



Production Class

Table 2 and Figure 6 contain the results from the 2009 domestic scheduled sampling plan by production class.

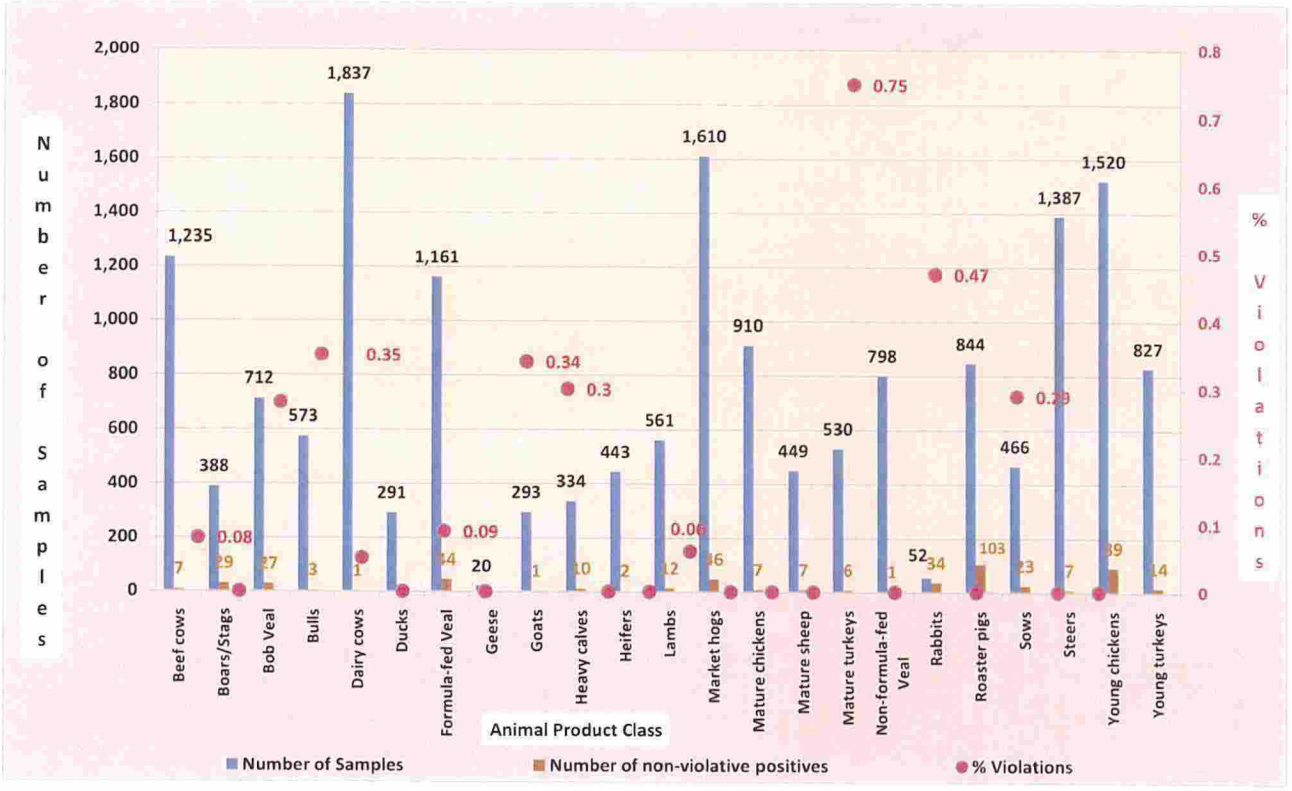
Table 2. Total Number of Samples by Production Class

2009 Domestic Scheduled Sampling Plan

Production Class	Number of Samples	Number of Non-violative Positives	Number of Violations	Percent Violations
Beef Cows	1,235	7	1	0.08
Boars/Stags	388	29	0	0.00
Bob Veal	712	27	2	0.28
Bulls	573	3	2	0.35
Dairy Cows	1,837	1	1	0.05
Ducks	291	0	0	0.00
Formula-fed Veal	1,161	44	1	0.09
Geese	20	0	0	0.00
Goats	293	1	1	0.34
Heavy Calves	334	10	1	0.30
Heifers	443	2	0	0.00
Lambs	561	12	0	0.00
Market Hogs	1,610	46	1	0.06
Mature Chickens	910	7	0	0.00
Mature Sheep	449	7	0	0.00
Mature Turkeys	530	6	0	0.00
Non-formula-fed Veal	798	1	5	0.63
Rabbits	52	34	0	0.00
Roaster Pigs	844	103	4	0.47
Sows	466	23	0	0.00
Steers	1,387	7	2	0.14
Young Chickens	1,520	89	0	0.00
Young Turkeys	827	14	0	0.00
TOTAL	**17,241**	**473**	**21**	**0.12**

Figure 6. Total Number of Samples and Violation Rate by Production Class

2009 Domestic Scheduled Sampling Plan



Compound Class

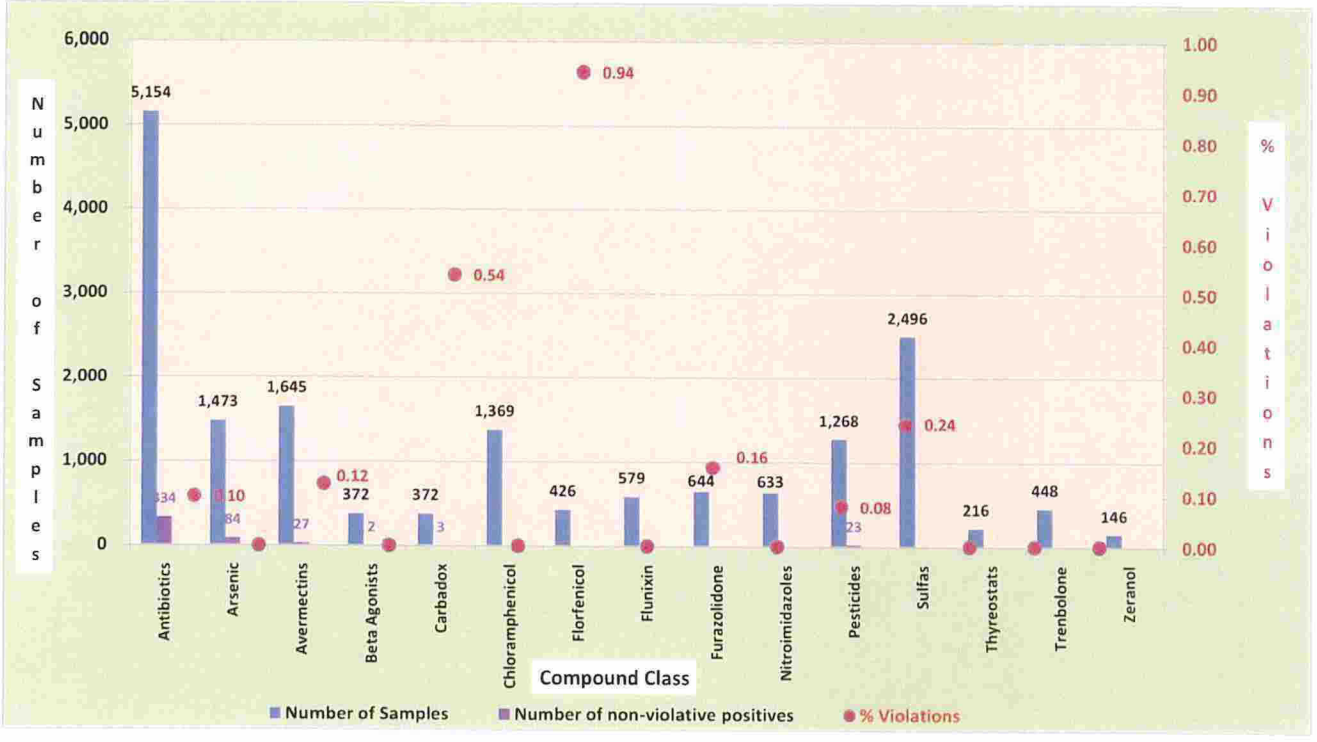
Table 3 and Figure 7 report results by compound class from the 2009 domestic scheduled samples.

Table 3. Total Number of Samples by Compound Class

2009 Domestic Scheduled Sampling Plan

Compound Class	Number of Samples	Number of Non-violative Positives	Number of Violations	Percent Violations
Antibiotics	5,154	334	5	0.10
Arsenic	1,473	84	0	0.00
Avermectins	1,645	27	2	0.12
beta Agonists	372	2	0	0.00
Carbadox	372	3	2	0.54
Chloramphenicol	1,369	0	0	0.00
Florfenicol	426	0	4	0.94
Flunixin	579	0	0	0.00
Furazolidone	644	0	1	0.16
Nitroimidazoles	633	0	0	0.00
Pesticides	1,268	23	1	0.08
Sulfas	2,496	0	6	0.24
Thyreostats	216	0	0	0.00
Trenbolone	448	0	0	0.00
Zeranol	146	0	0	0.00
TOTAL	**17,241**	**473**	**21**	**0.12**

Figure 7. Total Number of Samples and Violation Rate by Compound Class
2009 Domestic Scheduled Sampling Results



Exploratory Assessments

Environmental Contaminants — FSIS inspectors submitted samples from 276 dairy cows for cadmium and lead testing. The results of the analysis are reported on pages 105-106.

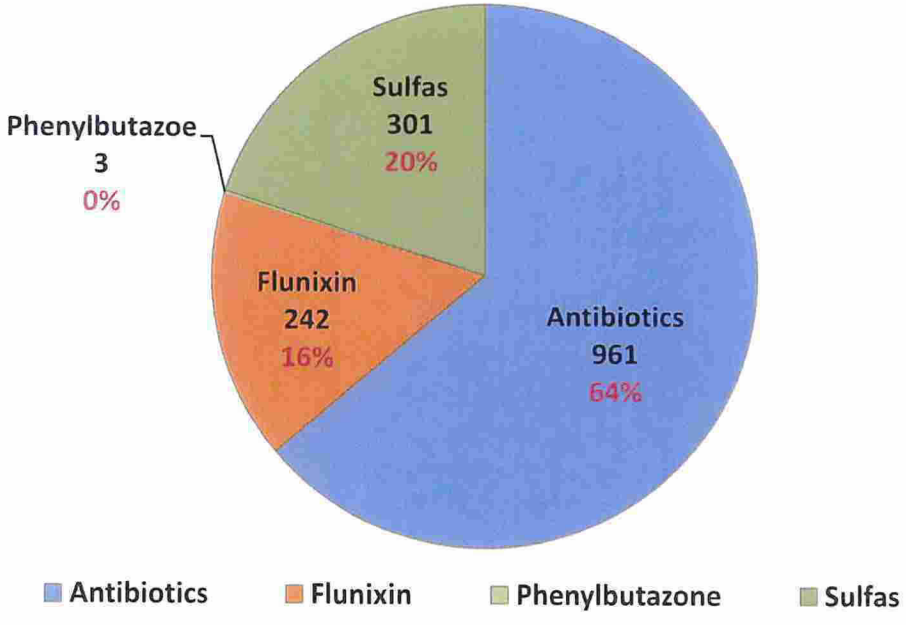
Inspector-Generated Sampling

Sampling for Suspect Animals

The NRP focused on 16 compound classes of veterinary drugs and pesticides. Of the 151,303 samples analyzed, 1,507 chemical residue violations in 1,105 animals were found. The residue violations consisted of three phenylbutazone, 301 sulfas, 242 flunixin, and 961 antibiotics.

Figure 8. Residue Violations

2009 Inspector-Generated Sampling Plan, Suspect Animals



Sampling for suspect populations

Bob Veal:
The FSIS laboratory used FAST kits to analyze 14,046 samples from bob veal calves for antibiotics and sulfonamides. Bob veal calf testing included samples from both the suspect population and suspect animals. FSIS laboratories confirmed 140 violations in 100 animals. The residue violations consisted of one ampicillin, seven desfuroylceftiofur (DCA or DCCD), 16 flunixin, four gentamycin sulfate, 63 neomycin, eight oxytetracycline, seven penicillin, four sulfadiazine, 12 sulfadimethoxine, seven sulfamethazine, and 11 sulfamethoxazole.

FSIS laboratories used KIS™ test kits to screen 23,427 samples from bob veal calves for antibiotics and sulfonamides. Bob veal calf testing included samples from both the suspect population and suspect animals. Of the animals tested, FSIS laboratory confirmed 207 violations in 149 animals. The residue violations consisted of three desfuroylceftiofur (DCA or DCCD), 13 flunixin, 28 gentamycin sulfate, 69 neomycin, nine oxytetracycline, four penicillin, one phenylbutazone, two sulfadiazine, six sulfadimethoxine, 12 sulfamethazine, 14 sulfamethoxazole, one sulfathiazole, 16 tetracycline, 11 tilmicosin, and 18 tulathromycin.

Show Animals
FSIS laboratories conducted analyses for antibiotics and sulfonamides on one lamb, nine market hogs, one mature sheep, and six steers, and detected no violations. FSIS labs conducted analyses for clenbuterol, salbutamol, ractopamine, and cimaterol (*beta*-Agonists) on three bovine, one bull, three heifers, five lamb, nine market hogs, one mature sheep, and 11 steer, and detected zero violations. FSIS labs analyzed one market hog and one steer for flunixin and detected zero violations.

Table 4. Number of Samples Tested by Production Class

2009 Domestic Sampling Plan (Scheduled and Inspector-Generated)

Production Class	Scheduled Samples Exposure Assessments	Scheduled Samples Exploratory Assessment	Inspector-generated Samples, Suspect Animals	Inspector-generated Samples, Suspect Populations
Beef Cows	1,235	0	10,611	0
Boars/Stags	388	0	212	0
Bob Veal	712	0	37,500[3]	37,500[1]
Bovine[2]	0	0	0	3
Bulls	573	0	1,442	1
Dairy Cows	1,837	552	80,091	0
Ducks	291	0	0	0
Formula-fed Veal	1,161	0	872	0
Geese	20	0	0	0
Goats	293	0	300	0
Heavy Calves	334	0	507	0
Heifers	443	0	1,835	3
Lambs	561	0	722	6
Market Hogs	1,610	0	9,189	18
Mature Chickens	910	0	0	0
Mature Sheep	449	0	224	2
Mature Turkeys	530	0	0	0
Non-formula-fed Veal	798	0	232	0
Rabbits	52	0	0	0
Roaster Pigs	844	0	286	0
Sows	466	0	2,676	0
Steers	1,387	0	4,159	17
Young Chickens	1,520	0	0	0
Young Turkeys	827	0	0	0
Other[3]	0	0	375	0
Total	**17,241**	**552**	**151,233**	**37,550**

[1] The total population analyzed includes both suspect population and suspect animals.
[2] Bovine refers to cattle production classes, and samples are coded as such by the inspector.
[3] Others: other minor production classes.

Table 5. Number of Samples Tested by Compound Class

2009 Domestic Sampling Plan (Scheduled and Inspector-Generated)

Compound Class	Scheduled Samples, Exposure Assessments	Scheduled Samples, Exploratory Assessment	Inspector-Generated Samples, Suspect Animals	Inspector-Generated Samples, Suspect Populations
Antibiotics (7-plate bioassay)	5,155	0	0	0
Antibiotics and Sulfonamides	0	0	142	16
Antibiotics, Sulfonamides, Flunixin, and Phenylbutazone	0	0	151,081	37,500[4]
Arsenic	1,473	0	1	0
Avermectins	1,645	0	1	0
beta-Agonists	372	0	5	33
Cadmium	0	276	0	0
Carbadox	372	0	0	0
CHCs/COPs	1,628	0	0	0
Chloramphenicol	1,369	0	0	0
Florfenicol	426	0	0	0
Flunixin	579	0	0	1
Lead	0	276	0	0
Nitrofurans	644	0	0	0
Nitroimidazoles	633	0	0	0
Phenylbutazone	0	0	0	0
Sulfonamides	2,496	0	1	0
Thyreostats	216	0	0	0
Trenbolone	448	0	2	0
Zeranol	146	0	0	0
Total	**17,241**	**552**	**151,233**	**37,550**

[4]Under the Inspector-Generated Sampling plan, positive FAST and or KIS™ samples taken in the plant are further analyzed for flunixin and phenylbutazone (non-steroidal anti-inflammatory compounds) in the laboratory.

Summary of Import Data

The United States imported approximately 3,353,662,536 (3.35 billion) pounds of fresh and processed meat, poultry, and egg products. These products were imported from 28 of the 33 countries eligible for exportation to the United States[1]. The import testing program included analysis of approximately 121 chemical residues from 13 compound classes of veterinary drugs and pesticides. Of 3,872 samples analyzed, one violation of avermectin was detected.

Normal

Thirteen compound classes of veterinary drugs and pesticides were tested. Of the 3,820 samples analyzed, one violation of avermectin was detected.

Increased

Three samples were tested for antibiotics using the 7-plate bioassay and detected zero violations.

Intensified

Two compound classes of veterinary drugs and pesticides were tested. Of the 49 samples analyzed, zero violations were detected.

[1] The 29 of the 33 countries that were eligible for import are the following: Argentina, Australia, Austria, Brazil, Canada, Chile, Costa Rica, Croatia, Denmark, Finland, France, Germany, Honduras, Hungary, Iceland, Ireland, Israel, Italy, Japan, Mexico, Netherlands, New Zealand, Nicaragua, Northern Ireland, Poland, Spain, Sweden, United Kingdom, and Uruguay. Note: United Kingdom includes England, Scotland, and Wales, which are under one inspection system, as well as Northern Ireland, which is under a separate inspection system and is listed separately.

Source: Office of International Affairs — Food Safety and Inspection Service

www.fsis.usda.gov/pdf/import_summary_2009.pdf

Figure 9. 2009 Imported Meat and Poultry Products by Country (% of total net weight)

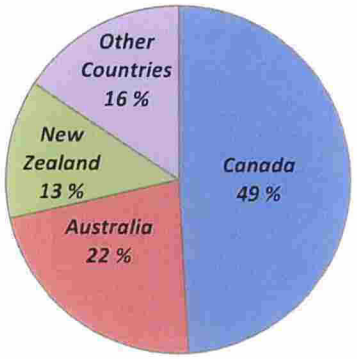


Figure 10. 2009 Imported Meat and Poultry Products by Species and Type (% of total Net Weight)

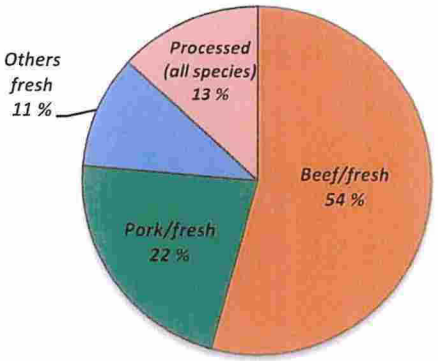
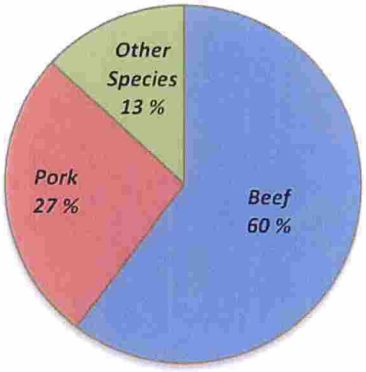


Figure 11. 2009 Imported Meat and Poultry Products by Species (% of total net weight)



DOMESTIC SAMPLING RESULTS

Tables 6 - 20 identify information obtained from the FSIS Microbiological and Residue Computer Information System (MARCIS). These tables list summary and detailed results by compound class.

Scheduled Sampling- Sampling for Exposure Assessments, Compound Class Data (Summary and Detailed Tables)

Tables 6a-20a present domestic scheduled sampling results. The tables include the total number of animals tested (or the number of composite samples in the case of poultry), the number of non-violative positives (compounds detected at a level equal to or below the established tolerance), the number of violations, and the percent of violations for each compound class. Because multiple compounds can be analyzed on the same sample, one sample (i.e., one animal or a composite from one poultry flock) could have more than one violation. A series of bar charts illustrate these data.

Tables 6b-20b detail the tissue type, number of samples, number of violations, and the range of each detected compound tested in every production class. The number of positive results and violations are reported in intervals, with the lowest interval listed as either 0.01 – 0.10 parts per million (ppm) or 0.01 – 0.10 parts per billion (ppb) depending on the analytical method used for the given chemical compound.

Samples that do not contain detectable residues were categorized as "None".The no-detect level varies for each analyte, but the level does not fall below 0.01 ppm or less than 0.01 ppb. Appendix I contains the minimum proficiency level results.

Tables 6b-20b may include two columns for some compound class categories. The additional columns indicate instances when residues were detected, but were not quantitated violative (code: *8888*) or non-violative (code: *9999*).

Tables 6c-20c summarizes violation results by compound class, such as production class, chemical residue, tissue type, and residue detected (ppb or ppm). These tables are contingent on violations being detected.

Antibiotics

An antibiotic is a chemical substance that has the capability in dilute solutions to destroy or inhibit the growth of microorganisms. The antibiotics quantitated by the 7-plate bioassay and associated follow-up methodologies range from ceftiofur, one of the most widely sold animal drug in the United States, to fluoroquinolone antibiotics,prohibited by the FDA from extra-label use in animals intended for food.[1] Appendix I contains a complete list of the antibiotics in the 7-plate bioassay.

FSIS laboratories analyzed 5,154 samples for antibiotic residues and detected five violations and 334 non-violative positives. The residue violations consisted of three gentamycin sulfate, one tilmicosin, and one neomycin.

Table 6a. Antibiotics Summary (7-plate bioassay)
2009 Domestic Scheduled Sampling Results

Production Class	Number of Samples	Number of Non-violative Positives	Number of Violations	Sample Percent Violations
Beef Cows	277	0	0	0.00
Boars/Stags	260	23	0	0.00
Bob Veal	259	27	1	0.39
Bulls	257	0	0	0.00
Dairy Cows	295	1	0	0.00
Ducks	51	0	0	0.00
Formula-fed Veal	338	34	0	0.00
Geese	20	0	0	0.00
Goats	63	0	0	0.00
Heavy Calves	68	10	0	0.00
Heifers	256	2	0	0.00
Lambs	256	6	0	0.00
Market Hogs	296	43	0	0.00
Mature Chickens	336	7	0	0.00
Mature Sheep	207	0	0	0.00
Mature Turkeys	264	6	0	0.00
Non-Formula-fed Veal	106	1	2	1.86
Rabbits	52	34	0	0.00
Roaster Pigs	297	98	0	0.00
Sows	257	23	0	0.00
Steers	293	0	2	0.68
Young Chickens	321	5	0	0.00
Young Turkeys	325	14	0	0.00
Total	**5,154**	**334**	**5**	**0.09**

[1] See Animal Medical Drug Use Clarification Act (AMDUCA) of 1994.

Table 6b. Antibiotics Residue Levels
2009 Domestic Scheduled Sampling Results

				Antibiotics Levels (ppm) Found in Samples									
Production Class	**Tissue**	**Number of Samples**	**Violations**	**None**	**0.11-0.20**	**0.21-0.30**	**0.31-0.50**	**0.51-1.00**	**1.01-2.51**	**2.51-5.00**	**> 5.00**	**Non-Quantitative Non-violative**	**Non-Quantitative Violative**
Beef Cows	Kidney	277	0	277	-	-	-	-	-	-	-	-	-
Boars/Stags	Kidney	260	0	238	-	-	1	-	-	-	-	21	-
Bob Veal	Kidney	259	1	234	-	-	-	-	5	2	1	17	-
Bulls	Kidney	257	0	257	-	-	-	-	-	-	-	-	-
Dairy Cows	Kidney	295	0	294	-	-	-	-	-	-	-	1	-
Ducks	Kidney	51	0	51	-	-	-	-	-	-	-	-	-
Formula-fed Veal	Kidney	338	0	304	1	-	1	1	1	1	-	29	-
Geese	Kidney	20	0	20	-	-	-	-	-	-	-	-	-
Goats	Kidney	63	0	63	-	-	-	-	-	-	-	-	-
Heavy Calves	Kidney	68	0	60	-	1	1	1	-	-	1	4	-
Heifers	Kidney	256	0	254	-	-	-	1	1	-	-	-	-
Lambs	Kidney	256	0	250	1	1	1	-	-	-	-	3	-
Market Hogs	Kidney	296	0	254	-	-	-	1	-	-	-	41	-
Mature Chickens	Kidney	336	0	329	-	-	-	1	-	-	-	6	-
Mature Sheep	Kidney	207	0	207	-	-	-	-	-	-	-	-	-
Mature Turkeys	Kidney	264	0	258	-	-	-	1	-	-	-	5	-
Non-Formula-fed Veal	Kidney	106	2	102	-	-	-	-	1	-	-	1	2
Rabbits	Kidney	52	0	19	-	-	-	-	-	-	-	33	-
Roaster Pigs	Kidney	297	0	211	2	3	1	1	-	1	-	78	-
Sows	Kidney	257	0	237	-	-	-	1	-	-	-	19	-
Steers	Kidney	293	2	289	-	-	-	-	-	-	-	2	2
Young Chickens	Kidney	321	0	316	-	-	1	-	-	-	-	4	-
Young Turkey	Kidney	325	0	311	-	1	-	1	2	-	-	10	-

Figure 12. Antibiotics Summary
2009 Domestic Scheduled Sampling Results

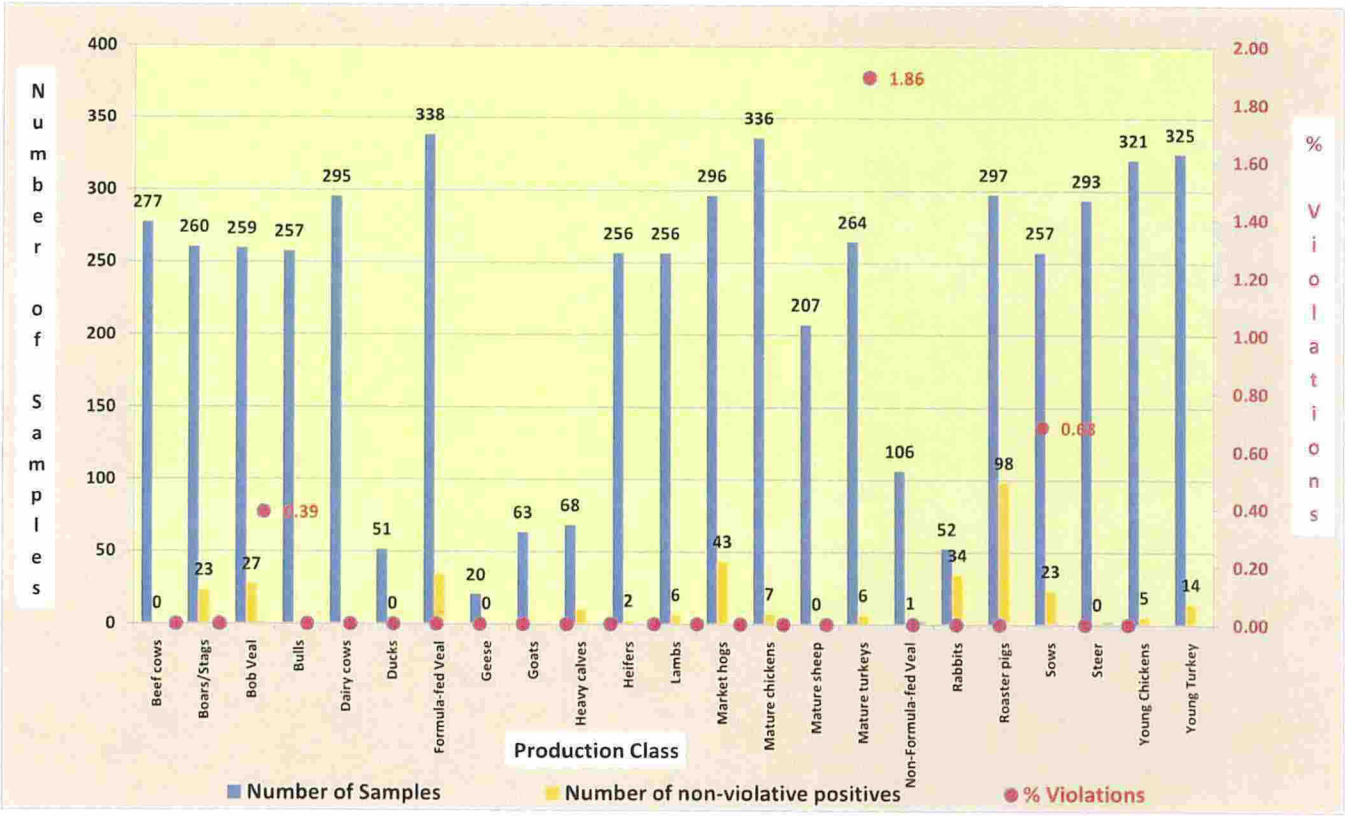


Table 6c. Antibiotics Violations Report
2009 Domestic Scheduled Sampling Results

Production class	Compound Class	Residue	Tissue	Result (ppm)
Non-formula-fed Veal	Antibiotics	Gentamycin Sulfate	Kidney	8888[1]
Bob Veal	Antibiotics	Neomycin	Kidney	17.89
Steers	Antibiotics	Gentamycin Sulfate	Kidney	8888
Non-formula-fed Veal	Antibiotics	Tilmicosin	Liver/Muscle	2.95/0.52
Steers	Antibiotics	Gentamycin Sulfate	Kidney	8888

[1] 8888 value indicates the result is violative, but not quantified. The residue levels were not determined because any amount of the identified residue constitutes a violation

Arsenic[1]

Arsenical compounds are used in swine and poultry as growth promoters, coccidiostats, and bacterial enteritis prevention.

FSIS laboratories analyzed 1,473 samples from Beef Cows, Dairy Cow, Market Hogs, Mature Chicken, and Young Chickens for arsenic; zero violations and 84 non-violative positives were detected.

Table 7a. Arsenic Summary
2009 Domestic Scheduled Sampling Results

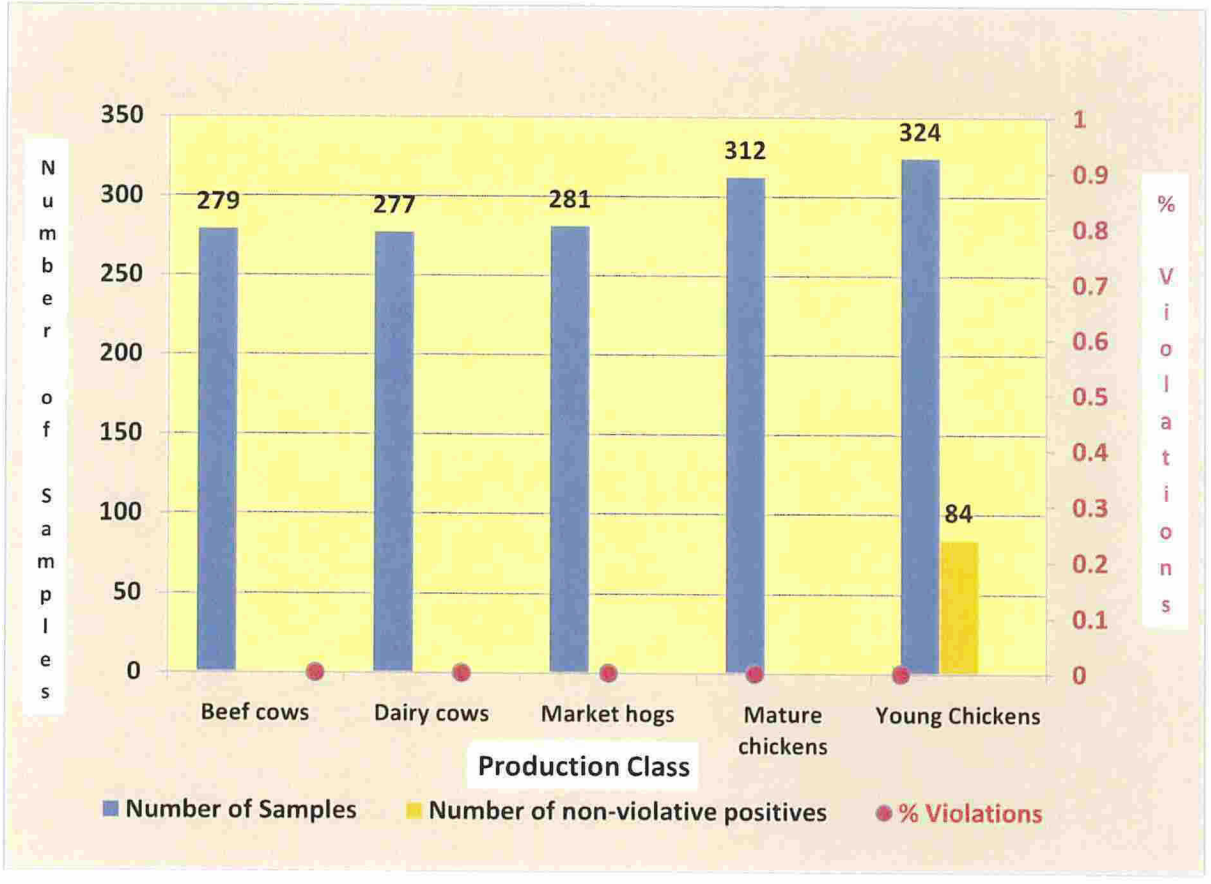
Production Class	Number of Samples	Number of Non-violative Positives	Number of Violations	Sample Percent Violations
Beef Cows	279	0	0	0.00
Dairy Cows	277	0	0	0.00
Market Hogs	281	0	0	0.00
Mature Chickens	312	0	0	0.00
Young Chickens	324	84	0	0.00
Total	**1,473**	**84**	**0**	**0.00**

[1] The method reduces organic arsenic to inorganic arsenic prior to quantification. The reported results include both original organic and inorganic arsenic species.

Table 7b. Arsenic Residue Levels
2009 Domestic Scheduled Sampling Results

Production class	Tissue	Number of Samples	Violations	Arsenic Levels (ppm) Found in Samples					
				None	0.11-0.20	0.21-0.30	0.31-0.50	0.51-1.00	1.01-2.51
Beef Cows	Liver	279	0	279	-	-	-	-	-
Dairy Cows	Liver	277	0	277	-	-	-	-	-
Market Hogs	Liver	281	0	281	-	-	-	-	-
Mature Chickens	Liver	312	0	312	-	-	-	-	-
Young Chickens	Liver	324	0	240	1	32	35	14	2

Figure 13. Arsenic Summary
2009 Domestic Scheduled Sampling Results



Avermectins (Ivermectin and Doramectin) and Milbemycins (Moxidectin)

Avermectins (ivermectin and doramectin) and milbemycins (moxidectin) are macrocyclic lactones used in animal husbandry practices against nematode and arthropod parasites. Ivermectin is an effective paraciticide. Doramectin is a potent endectocide that combines broad-spectrum activity with a prolonged duration of activity against the major internal and external parasites of cattle. Moxidectin is an antiparasitic drug that controls a range of internal and external parasites in sheep and cattle.

FSIS laboratories analyzed 1,645 samples for avermectin and milbemycin residues. Two (2) ivermectin violations were detected.

Table 8a. Avermectins and Milbemycins Summary
2009 Domestic Scheduled Sampling Results

Production Class	Number of Samples	Number of Non-violative Positives	Number of Violations	Sample Percent Violations
Beef Cows	228	7	0	0.00
Bulls	137	3	1	0.73
Formula-fed Veal	250	10	0	0.00
Goats	86	0	1	1.16
Heavy Calves	81	0	0	0.00
Lambs	188	3	0	0.00
Market Hogs	216	0	0	0.00
Mature Sheep	154	4	0	0.00
Non-Formula-fed Veal	84	0	0	0.00
Steers	221	0	0	0.00
Total	**1,645**	**27**	**2**	**0.12**

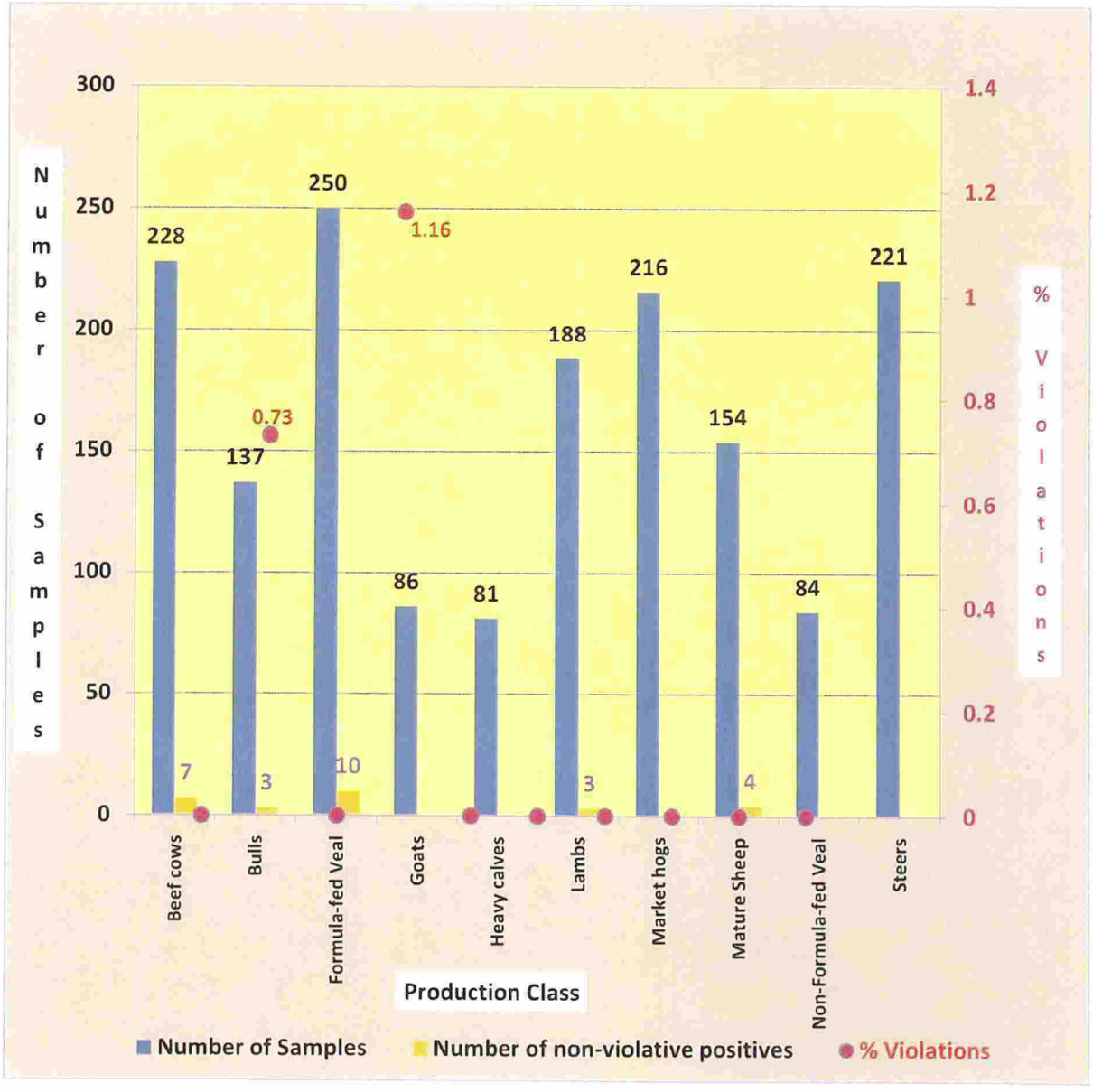
Table 8b. Avermectins and Milbemycins Residue Levels
2009 Domestic Scheduled Sampling Results

Production class	Tissue	Number of Samples	Violations	Avermectins and Milbemycins Levels (ppb) Found in Samples	
				None	> 5.00
Beef Cows	Liver	228	0	223	5
Bulls	Liver	137	1	133	4
Formula-fed Veal	Liver	250	0	244	6
Goats	Liver	86	1	85	1
Heavy Calves	Liver	81	0	81	-
Lambs	Liver	188	0	185	3
Market Hogs	Liver	216	0	216	-
Mature Sheep	Liver	154	0	152	2
Non-Formula-fed Veal	Liver	84	0	84	-
Steers	Liver	221	0	221	-

Table 8c. Avermectins Violations Report
2009 Domestic Scheduled Sampling Results

Production Class	Compound Class	Residue	Tissue	Result (ppb)
Goat	Avermectins	Ivermectin	Liver	145
Bull	Avermectins	Ivermectin	Liver	338

Figure 14. Avermectins and Milbemycins Summary
2009 Domestic Scheduled Sampling Results



beta -Agonists (Clenbuterol, Cimaterol, Ractopamine, Salbutamol, and Zilpaterol)

Clenbuterol, a growth promotant, is not currently registered for use in livestock in the United States and is AMDUCA[1] prohibited from extra-label use in animals intended for food. Ractopamine is used for increased rate of weight gain, improved feed efficiency, increased carcass leanness, and prevention and/or control of porcine proliferative enteropathies (ileitis). Zilpaterol is used for increased rate of weight gain, improved feed efficiency, and increased carcass leanness in cattle fed in confinement for slaughter during the last 20 to 40 days on feed. Cimaterol and Salbutamol are *beta*-Agonists not approved for use in United States for food animals.

FSIS laboratories analyzed 49 goats, 153 non-formula fed veal, and 170 Steers samples for *beta*-Agonists residues. This study found zero violations for all beta-Agonists and two non-violative positives for Ractopamine.

Table 9a. *beta*-Agonists Summary
2009 Domestic Scheduled Sampling Results

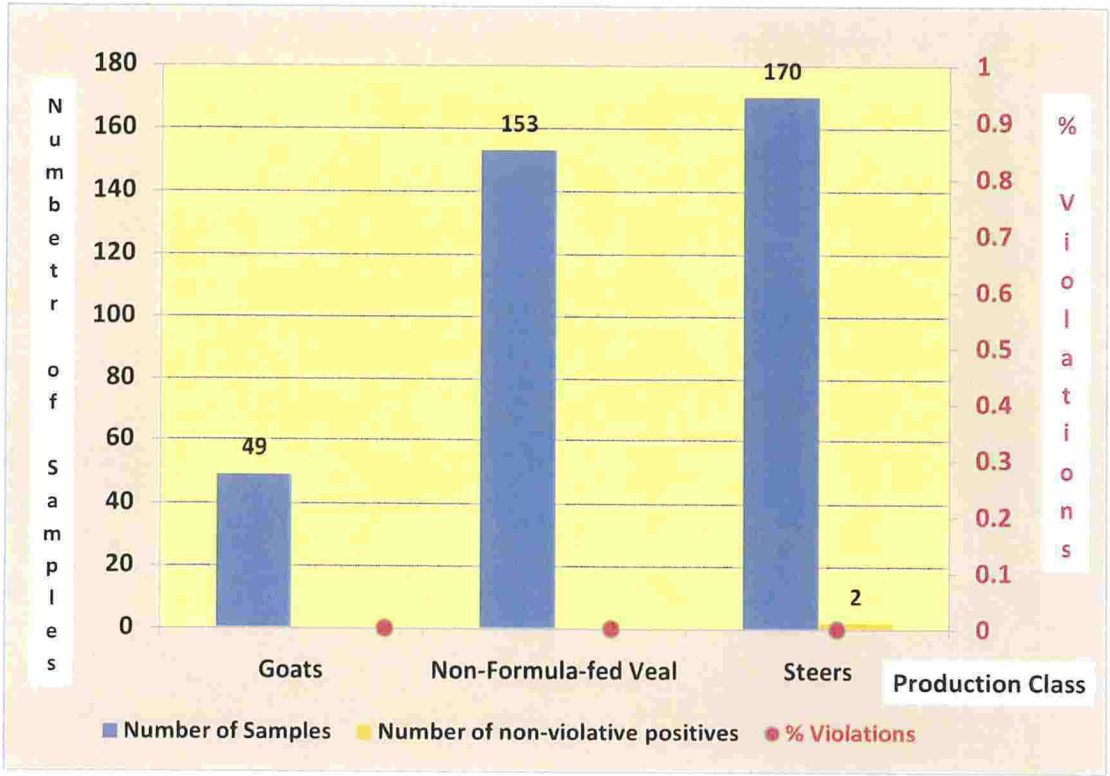
Production Class	Number of Samples	Number of Non-violative Positives	Number of Violations	Sample Percent Violations
Goats	49	0	0	0.00
Non-formula-fed Veal	153	0	0	0.00
Steers	170	2	0	0.00
Total	**372**	**2**	**0**	**0.00**

Table 9b. *beta*-Agonists Residue Levels
2009 Domestic Scheduled Sampling Results

				***beta*-Agonist Levels (ppb) Found in Samples**	
Production Class	**Tissue**	**Number of Samples**	**Violations**	**None**	**> 5.00**
Goats	Liver	49	0	49	-
Non-Formula-fed Veal	Liver	153	0	153	-
Steers	Liver	170	0	169	1

[1] Animal Medical Drug Use Clarification Act of 1994

Figure 15. *beta*-Agonists Summary
2009 Domestic Scheduled Sampling Results



Carbadox

Carbadox is approved to prevent or treat enteritis, as well as to improve feed efficiency and weight gain in swine. FSIS laboratories analyzed 193 market hog samples for carbadox. The results revealed zero violation and zero non-violative positives. FSIS laboratories analyzed 179 roaster pig samples for carbadox and detected two violations and three non-violative positives.

Table 10a. Carbadox Summary
2009 Domestic Scheduled Sampling Results

Production Class	Number of Samples	Number of Non-violative Positives	Number of Violations	Sample Percent Violations
Market Hogs	193	0	0	0.00
Roaster Pigs	179	3	2	1.12
Total	**372**	**3**	**2**	**0.54**

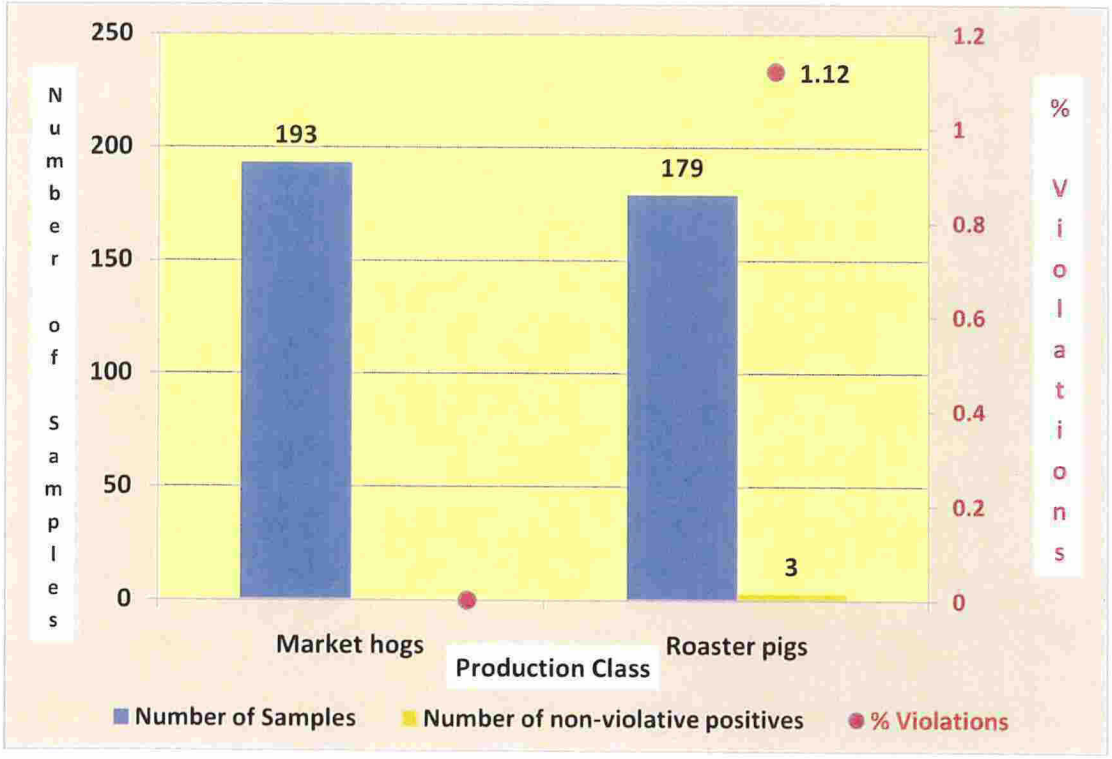
Table 10b. Carbadox Residue Levels
2009 Domestic Scheduled Sampling Results

				Carbadox Levels Found in Samples (ppb)	
Production Class	**Tissue**	**Number of Samples**	**Violations**	**None**	**> 5.00**
Market Hogs	Liver	193	0	193	-
Roaster Pigs	Liver	179	2	174	5

Table 10c. Carbadox Violations Report
2009 Domestic Scheduled Sampling Results

Production class	**Compound Class**	**Residue**	**Tissue**	**Result (ppb)**
Roaster Pigs	Carbadox	Carbadox	Liver	53
Roaster Pigs	Carbadox	Carbadox	Liver	55

Figure 16. Carbadox Summary
2009 Domestic Scheduled Sampling Results



Chloramphenicol

Chloramphenicol is a potent, broad-spectrum antibiotic drug that has toxic effects in humans. As such, this drug is AMDUCA[1] prohibited for extra label use in animals intended for food. Chloramphenicol depresses the development of a type of bone marrow (aplastic anemia) in susceptible individuals.

FSIS laboratories analyzed 1,369 samples for chloramphenicol and detected zero violations and zero non-violative positives by production class.

Table 11a. Chloramphenicol Summary
2009 Domestic Scheduled Sampling Results

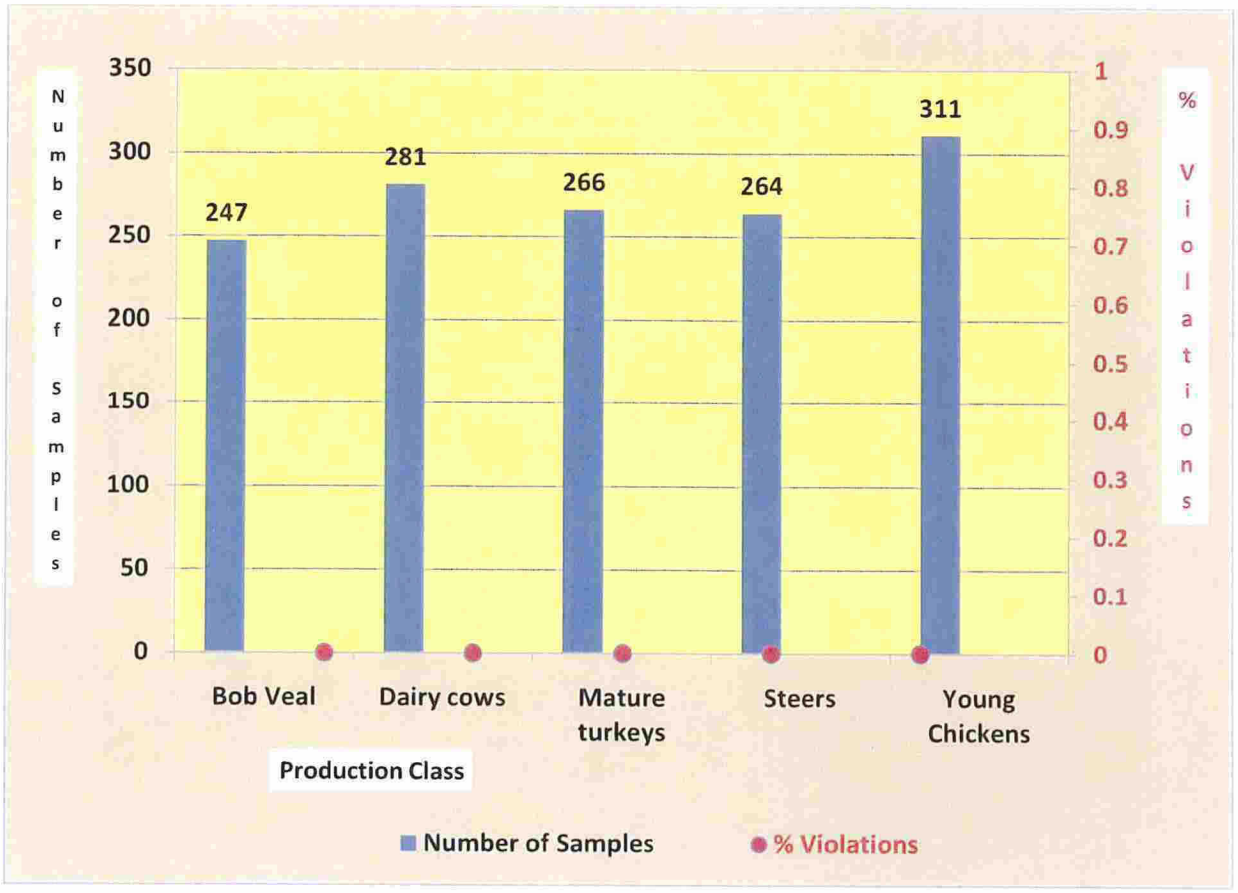
Production Class	Number of Samples	Number of Non-violative Positives	Number of Violations	Sample Percent Violations
Bob Veal	247	0	0	0.00
Dairy Cows	281	0	0	0.00
Mature Turkeys	266	0	0	0.00
Steers	264	0	0	0.00
Young Chickens	311	0	0	0.00
Total	**1,369**	**0**	**0**	**0.00**

Table 11b. Chloramphenicol Residue Levels
2009 Domestic Scheduled Sampling Results

				Chloramphenicol Levels (ppb) Found in Samples
Production Class	**Tissue**	**Number of Samples**	**Violations**	**None**
Bob Veal	Muscle	247	0	247
Dairy Cows	Muscle	281	0	281
Mature Turkeys	Muscle	266	0	266
Steers	Muscle	264	0	264
Young Chickens	Muscle	311	0	311

[1] Animal Medical Drug Use Clarification Act of 1994

Figure 17. Chloramphenicol Summary
2009 Domestic Scheduled Sampling Results



Chlorinated Hydrocarbons and Chlorinated Organophosphates

Chlorinated hydrocarbons, chlorinated organophosphates, organophosphates, and pyrethroids are effective insecticides. Some of these compounds - such as DDT - are no longer marketed because of their extremely long half-life. FSIS employs analytical methodologies to detect these pesticides and environmental contaminants, such as PCBs. Appendix I provides a complete list of the analytes for this multi-residue method.

FSIS laboratories analyzed 1,268 samples for chlorinated hydrocarbons and chlorinated organophosphates residues. One PBDE (polybrominated diphenyl ether) violation and 23 non-violative positive samples were detected.

Table 12a. Chlorinated Hydrocarbons and Chlorinated Organophosphates Summary 2009 Domestic Scheduled Sampling Results

Production Class	Number of Samples	Number of Non-violative Positives	Number of Violations	Sample Percent Violations
Boars/Stags	128	6	0	0.00
Goats	95	1	0	0.00
Lambs	117	3	0	0.00
Market Hogs	302	3	0	0.00
Mature Sheep	88	3	0	0.00
Roaster Pigs	269	2	1	0.37
Steers	269	5	0	0.00
Total	**1,268**	**23**	**1**	**0.08**

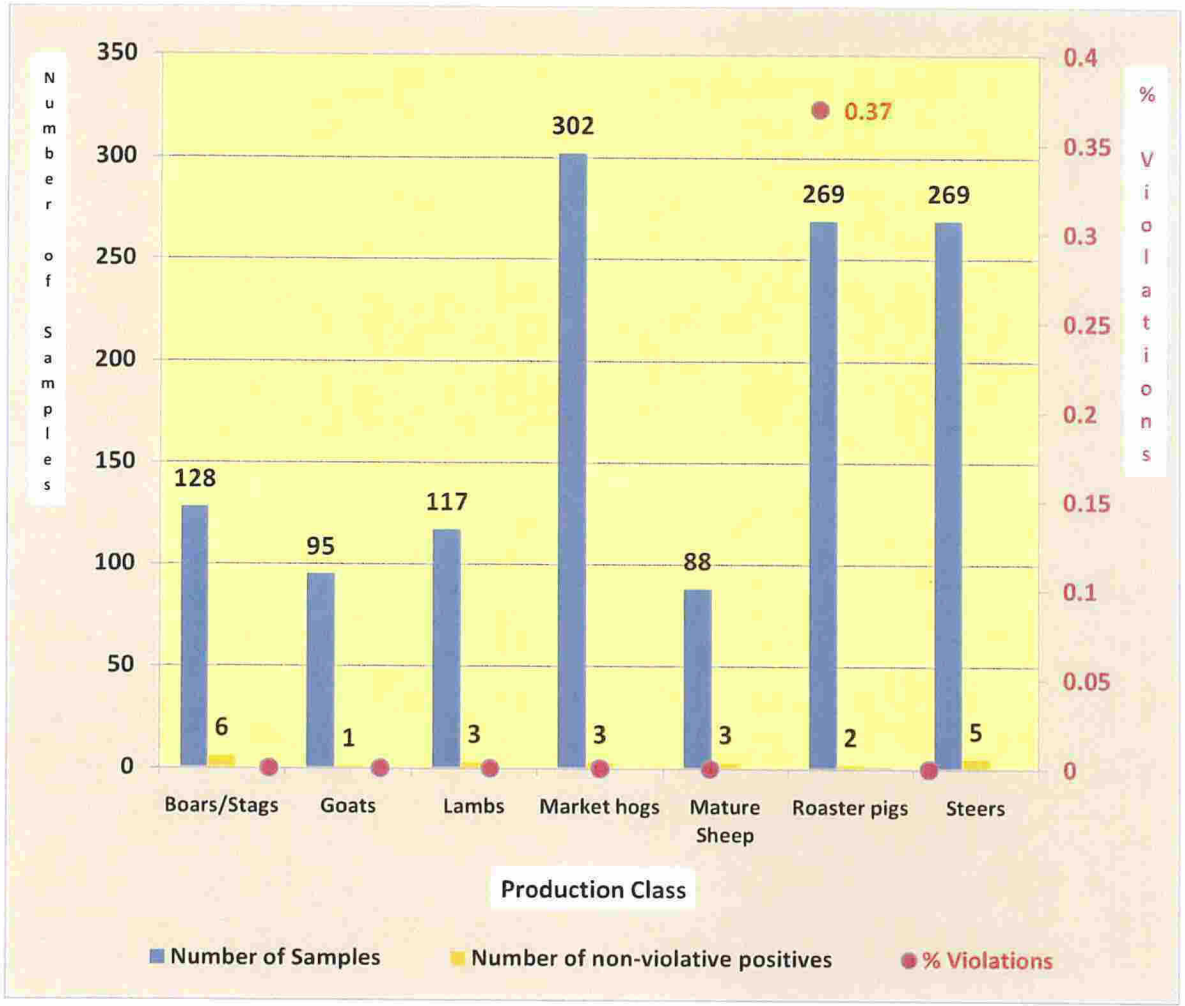
Table 12b. Chlorinated Hydrocarbons and Chlorinated Organophosphates Residue Levels 2009 Domestic Scheduled Sampling Results

Production class	Tissue	Number of Samples	Violations	Chlorinated Hydrocarbons/Organophosphates Levels (ppm) Found in Samples							
				None	0.01-0.10	0.11-0.20	0.21-0.30	0.31-0.50	0.51-1.00	1.01-2.51	2.51-5.00
Boars/Stags	Fat	128	0	122	2	1	1	1	-	-	1
Goats	Fat	95	0	94	-	1	-	-	-	-	-
Lambs	Fat	117	0	114	-	3	-	-	-	-	-
Market Hogs	Fat	302	0	299	-	-	-	3	-	-	-
Mature Sheep	Fat	88	0	85	1	1	1	-	-	-	-
Roaster Pigs	Fat	269	1	266	2	-	-	-	-	1	-
Steers	Fat	269	0	264	-	3	1	-	1	-	-

Table 12c. Chlorinated Hydrocarbons and Chlorinated Organophosphates Violations Report 2009 Domestic Scheduled Sampling Results

Production Class	Compound Class	Residue	Tissue	Result (ppm)
Roaster Pigs	Pesticides	PBDE (polybrominated dphenyl ether)	Fat	1.43

Figure 18. Chlorinated Hydrocarbons and Chlorinated Organophosphates Summary 2009 Domestic Scheduled Sampling Results



Florfenicol

Florfenicol is a broad-spectrum bacteriostatic antibiotic with similar applications as chloramphenicol. However, this antibiotic does not carry the risk of inducing human aplastic anemia that is associated with chloramphenicol. FSIS laboratories analyzed 426 samples for florfenicol residues and detected four violations.

Table 13a. Florfenicol Summary
2009 Domestic Scheduled Sampling Results

Production Class	Number of Samples	Number of Non-violative Positives	Number of Violations	Sample Percent Violations
Beef Cows	1	0	0	0.00
Bob Veal	116	0	1	0.86
Dairy Cows	207	0	0	0.00
Non-Formula-fed Veal	102	0	3	2.94
Total	**426**	**0**	**4**	**0.94**

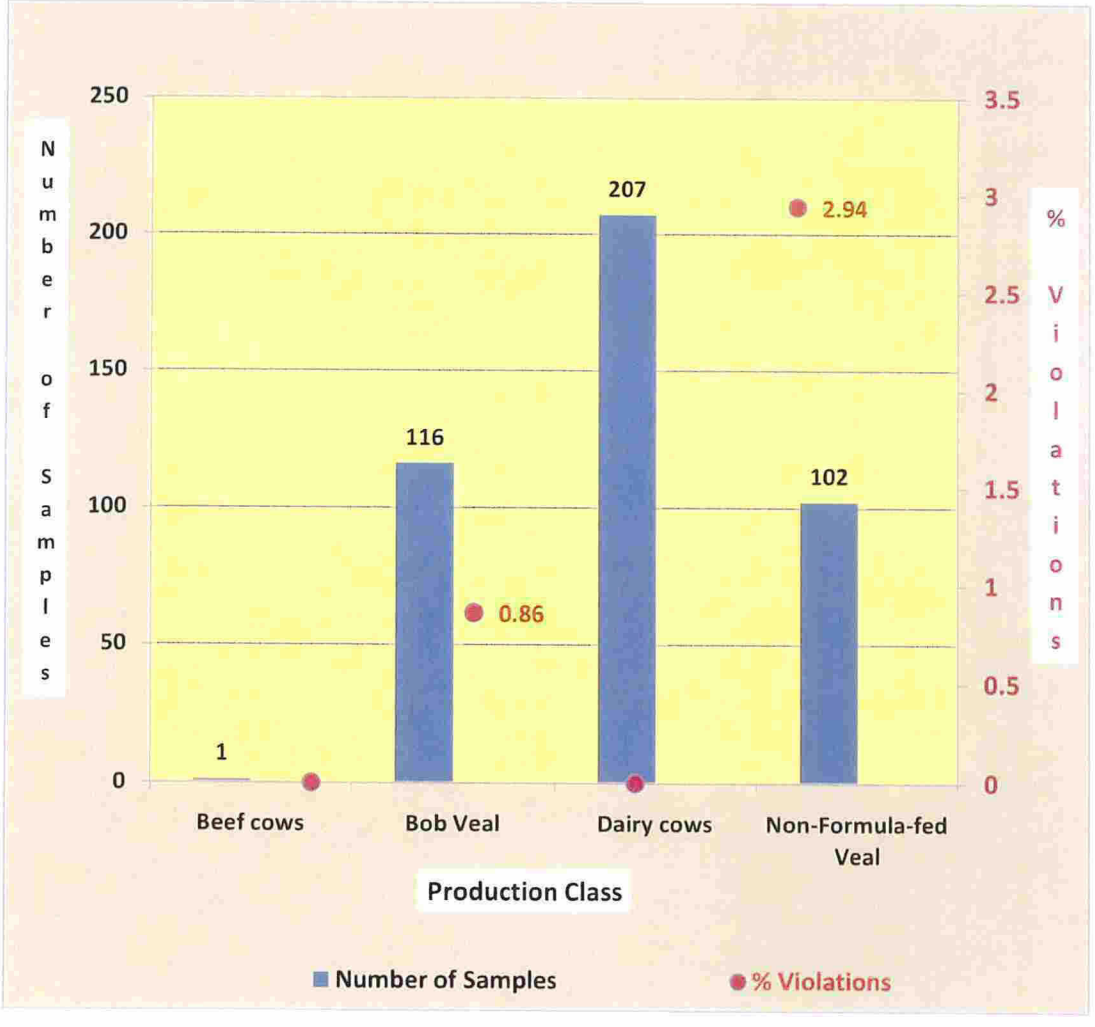
Table 13b. Florfenicol Residue Levels
2009 Domestic Scheduled Sampling Results

				Florfenicol Levels (ppm) Found in Samples			
Production Class	Tissue	Number of Samples	Violations	None	0.51-1.00	1.01-2.51	2.51-5.00
Beef Cows	Liver	1	0	1	-	-	-
Bob Veal	Liver	116	1	115	-	-	1
Dairy Cows	Liver	207	0	207	-	-	-
Non-formula-fed Veal	Liver	102	3	99	2	1	-

Table 13c. Florfenicol Violations Report
2009 Domestic Scheduled Sampling Results

Production Class	Compound Class	Residue	Tissue	Result (ppm)
Non-formula-fed Veal	Florfenicol	Florfenicol	Liver	0.68
Bob Veal	Florfenicol	Florfenicol	Liver	4.4
Non-formula-fed Veal	Florfenicol	Florfenicol	Liver	0.99
Non-formula-fed Veal	Florfenicol	Florfenicol	Liver	2.11

Figure 19. Florfenicol Summary
2009 Domestic Scheduled Sampling Results



Flunixin

Flunixin is a non-steroidal anti-inflammatory drug (NSAID) with approved use in swine and cattle to alleviate inflammation and pain associated with musculoskeletal disorders. FSIS laboratories analyzed 579 samples for flunixin residues and detected zero positive samples.

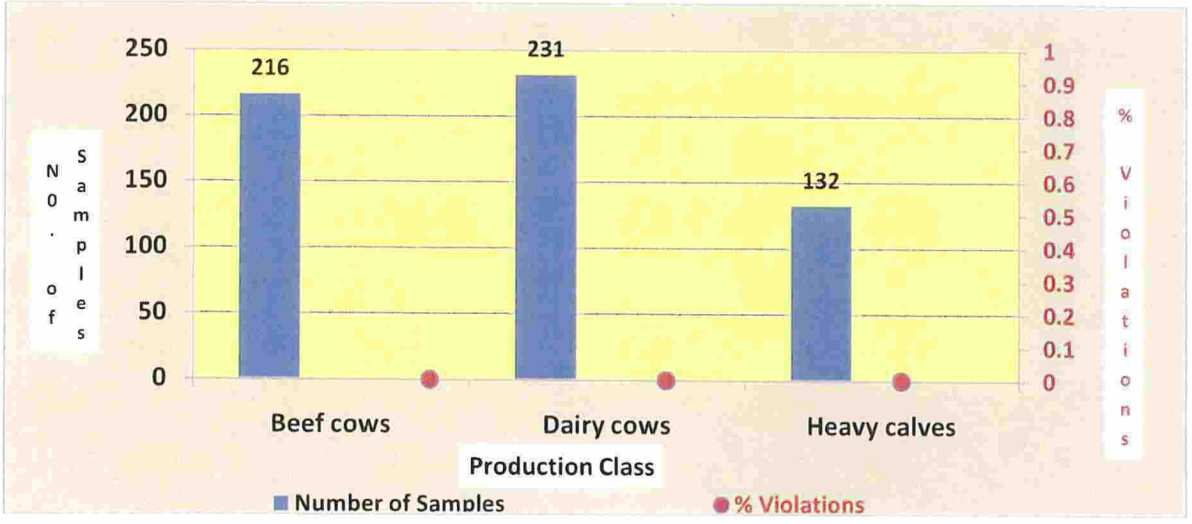
Table 14a. Flunixin Summary
2009 Domestic Scheduled Sampling Results

Production Class	Number of Samples	Number of Non-violative Positives	Number of Violations	Sample Percent Violations
Beef Cows	216	0	0	0.00
Dairy Cows	231	0	0	0.00
Heavy Calves	132	0	0	0.00
Total	**579**	**0**	**0**	**0.00**

Table 14b. Flunixin Residue Levels
2009 Domestic Scheduled Sampling Results

				Flunixin Levels (ppb) Found in Samples
Production Class	**Tissue**	**Number of Samples**	**Violations**	**None**
Beef Cows	Liver	216	0	216
Dairy Cows	Liver	231	0	231
Heavy Calves	Liver	132	0	132

Figure 20. Flunixin Summary
2009 Domestic Scheduled Sampling Results



Nitrofurans

Furazolidone is a nitrofuran compound with approved use in swine, but AMDUCA[1]-prohibited for extra-label use in other species. Furaltadone is a synthetic nitrofuran antibiotic that is not approved for use in food-producing animals. FSIS laboratories analyzed 644 samples for nitrofuran (furazolidone and furaltadone) residues and detected one violation.

Table 15a. Nitrofurans Summary
2009 Domestic Scheduled Sampling Results

Production Class	Number of Samples	Number of Non-violative Positives	Number of Violations	Sample Percent Violations
Dairy Cows	214	0	1	0.47
Market Hogs	221	0	0	0.00
Sows	209	0	0	0.00
Total	**644**	**0**	**1**	**0.16**

Table 15b. Nitrofurans Residue Levels
2009 Domestic Scheduled Sampling Results

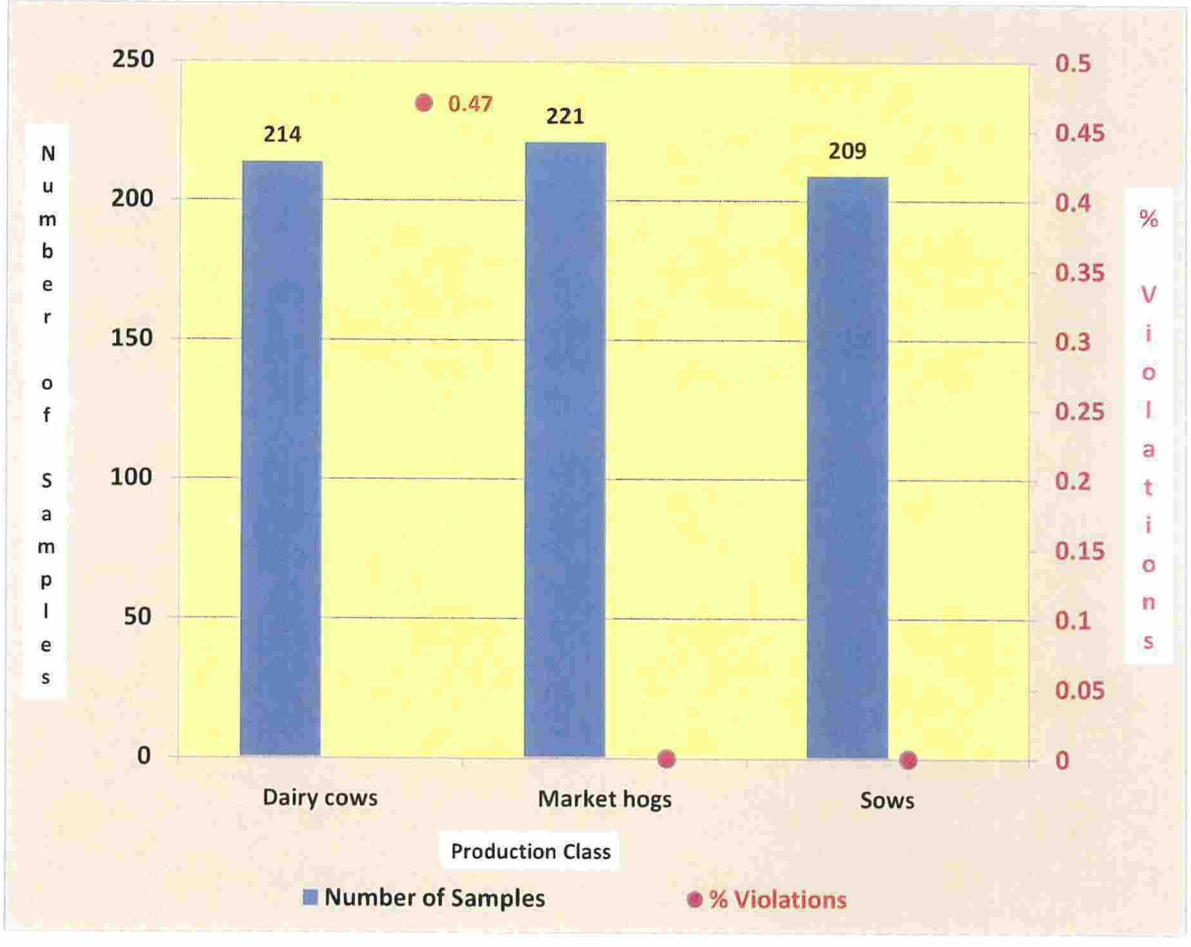
				Nitrofuran Levels (ppb) Found in Samples	
Production Class	Tissue	Number of Samples	Violations	None	Non-Quantitative Violative
Dairy Cows	Liver	214	1	213	1
Market Hogs	Liver	221	0	221	-
Sows	Liver	209	0	209	-

[1] Animal Medical Drug Use Clarification Act of 1994

Table 15c. Nitrofurans Violations Report
2009 Domestic Scheduled Sampling Results

Production Class	Compound Class	Residue	Tissue	Result (ppm)
Dairy Cows	Furazolidone	Furazolidone	Liver	8888[1]

Figure 21. Nitrofurans Summary
2009 Domestic Scheduled Sampling Results



[1] 8888 value indicates the result is violative, but not quantified. The residue levels were not determined because any amount of the identified residue constitutes a violation.

Nitroimidazoles

Nitroimidazoles, such as dimetridazole and ipronidazole, are AMDUCA[1]-prohibited for extra-label use. FSIS laboratories analyzed 633 young chicken samples for nitroimidazole (hydroxyipronidazone and hydoxydimetridazole) residues and detected zero violations and zero non-violative positive residues.

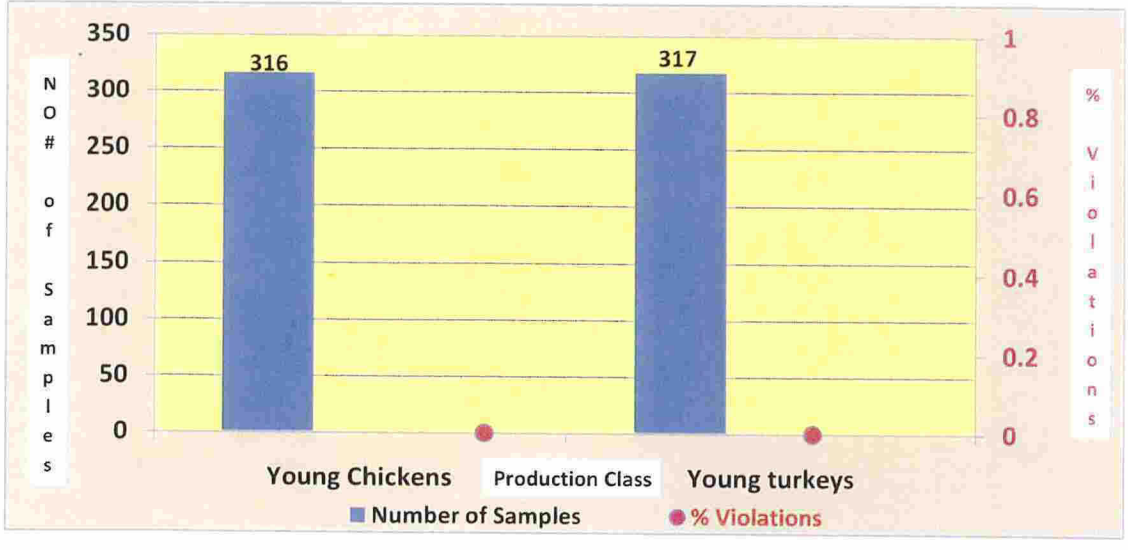
Table 16a. Nitroimidazoles Summary
2009 Domestic Scheduled Sampling Results

Production Class	Number of Samples	Number of Non-violative Positives	Number of Violations	Percent Violations	Sample Percent Violations
Young Chickens	316	0	0	0.00	0
Young Turkey	317	0	0	0.00	0
Total	**633**	**0**	**0**	**0.00**	**0**

Table 16b. Nitroimidazoles Residue Levels
2009 Domestic Scheduled Sampling Results

				Nitroimidazole Levels (ppm) Found in Samples
Production Class	**Tissue**	**Number of Samples**	**Violations**	**None**
Young Chickens	Muscle	316	0	316
Young Turkey	Muscle	317	0	317

Figure 22. Nitroimidazoles Summary
2009 Domestic Scheduled Sampling Results



[1] Animal Medical Drug Use Clarification Act of 1994

Sulfonamides

Sulfonamides are a group of drugs used to treat infections. Some of these drugs have bacteriostatic action. FSIS laboratories analyzed 2,496 samples for sulfonamides and detected six violations. The chemical residue violations consisted of three sulfadimethoxine and three sulfamethazine.

Table 17a. Sulfonamides Summary
2009 Domestic Scheduled Sampling Results

Production Class	Number of Samples	Number of Non-violative Positives	Number of Violations	Sample Percent Violations
Beef Cows	234	0	1	0.43
Bob Veal	90	0	0	0.00
Bulls	179	0	1	0.56
Dairy Cows	116	0	0	0.00
Ducks	240	0	0	0.00
Formula-fed Veal	247	0	1	0.40
Heavy Calves	53	0	1	1.89
Heifers	187	0	0	0.00
Market Hogs	101	0	1	0.99
Mature Chickens	262	0	0	0.00
Non-formula-fed Veal	85	0	0	0.00
Roaster Pigs	99	0	1	1.01
Steers	170	0	0	0.00
Young Chickens	248	0	0	0.00
Young Turkeys	185	0	0	0.00
Total	**2,496**	**0**	**6**	**0.24**

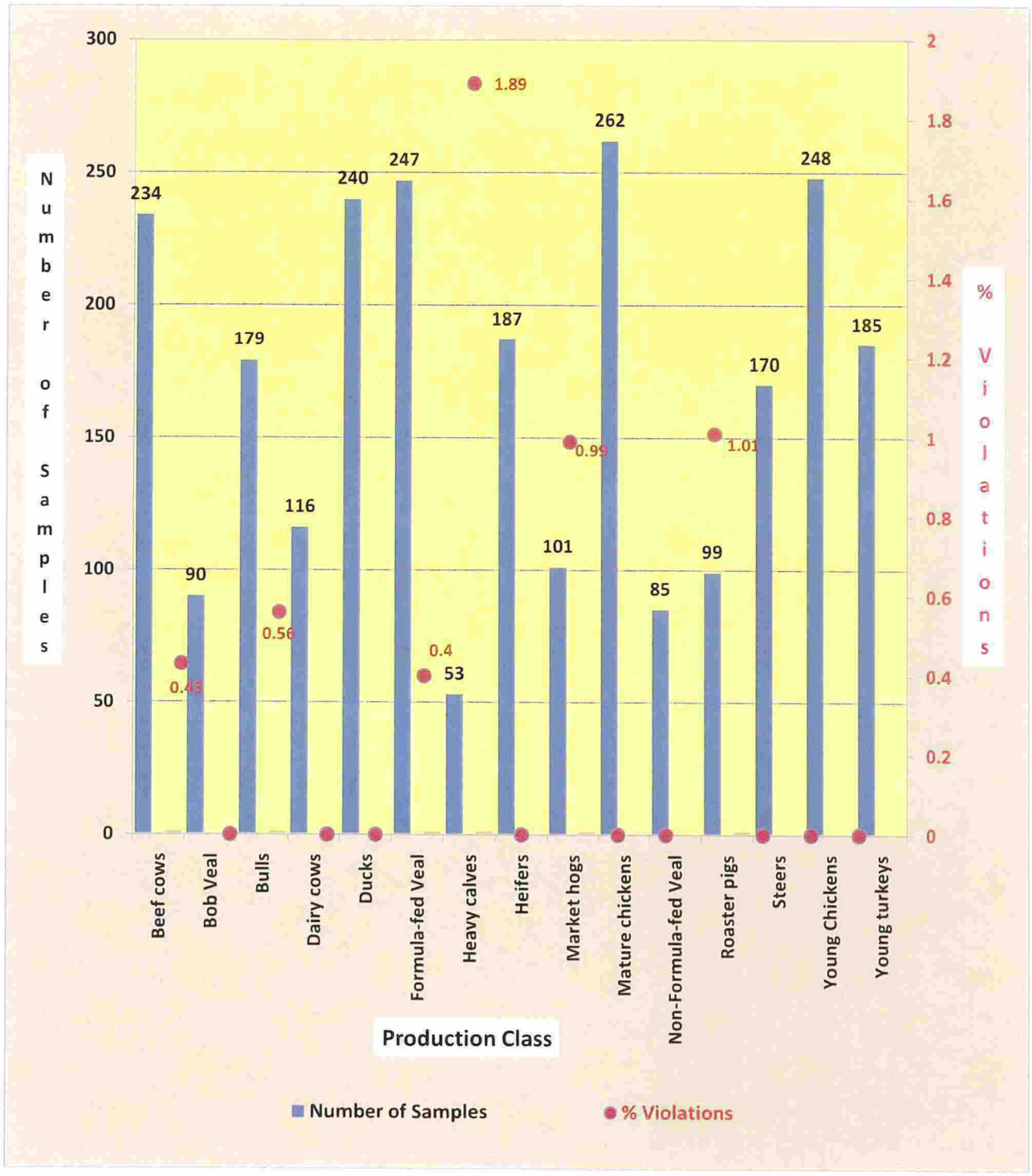
Table 17b. Sulfonamides Residue Levels
2009 Domestic Scheduled Sampling Results

				Sulfonamide Levels (ppm) Found in Samples				
Production Class	**Tissue**	**Number of Samples**	**Violations**	**None**	**0.11-0.20**	**0.21-0.30**	**0.31-0.50**	**1.01-2.51**
Beef Cows	Liver	234	1	233	-	-	1	-
Bob Veal	Liver	90	0	90	-	-	-	-
Bulls	Liver	179	1	178	1	-	-	-
Dairy Cows	Liver	116	0	116	-	-	-	-
Ducks	Liver	240	0	240	-	-	-	-
Formula-fed Veal	Liver	247	1	246	-	1	-	-
Heavy Calves	Liver	53	1	52	-	-	1	-
Heifers	Liver	187	0	187	-	-	-	-
Market Hogs	Liver	101	1	100	-	-	-	1
Mature Chickens	Liver	262	0	262	-	-	-	-
Non-formula-fed Veal	Liver	85	0	85	-	-	-	-
Roaster Pigs	Liver	99	1	98	-	-	-	1
Steers	Liver	170	0	170	-	-	-	-
Young Chickens	Liver	248	0	248	-	-	-	-
Young Turkeys	Liver	185	0	185	-	-	-	-

Table 17c. Sulfonamides Violations Report
2009 Domestic Scheduled Sampling Results

Production Class	Compound Class	Residue	Tissue	Result (ppm)
Beef Cows	Sulfas	Sulfadimethoxine	Liver	0.38
Market Hogs	Sulfas	Sulfamethazine	Liver	1.66
Heavy Calves	Sulfas	Sulfadimethoxine	Liver	0.33
Formula-fed Veal	Sulfas	Sulfadimethoxine	Liver	0.22
Roaster Pigs	Sulfas	Sulfamethazine	Liver	2.39
Bulls	Sulfas	Sulfamethazine	Liver	0.11

Figure 23. Sulfonamides Summary
2009 Domestic Scheduled Sampling Results



Thyreostats

Thyreostats are thyroid-inhibiting compounds that facilitate weight increase. FSIS laboratories analyzed samples from 216 beef cows and detected zero violations and zero non-violative positives results.

Table 18a. Thyreostats Summary
2009 Domestic Scheduled Sampling Results

Production Class	Number of Samples	Number of Non-violative Positives	Number of Violations	Sample Percent Violations
Beef Cows	216	0	0	0
Total	**216**	**0**	**0**	**0**

Table 18b. Thyreostats Residue Levels
2009 Domestic Scheduled Sampling Results

Production Class	Tissue	Number of Samples	Violations	Thyreostats Levels (ppb) Found in Samples
				None
Beef Cows	Muscle	216	0	216

Trenbolone

Trenbolone is a xenobiotic anabolic steroid based on the principal male hormone testosterone. This steroid has approved use in cattle, but not for use in pre-ruminant cattle. FSIS laboratories analyzed 448 samples for trenbolone and detected zero violations and zero non-violative positives.

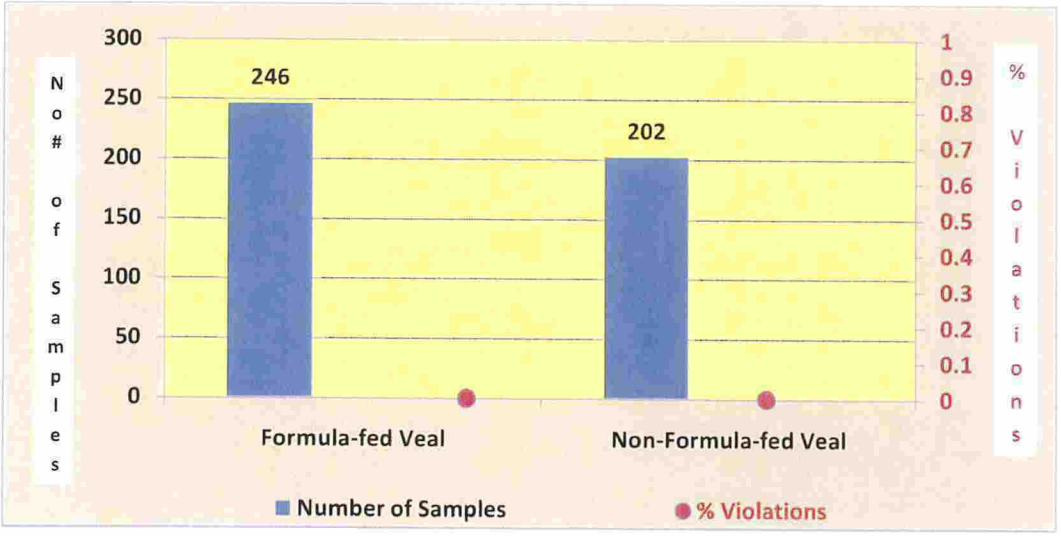
Table 19a. Trenbolone Summary
2009 Domestic Scheduled Sampling Results

Production Class	Number of Samples	Number of Non-violative Positives	Number of Violations	Sample Percent Violations
Formula-fed Veal	246	0	0	0.00
Non-formula-fed Veal	202	0	0	0.00
Total	**448**	**0**	**0**	**0.00**

Table 19b. Trenbolone Residue Levels
2009 Domestic Scheduled Sampling Results

				Trenbolone Levels (ppm) Found in Samples
Production Class	**Tissue**	**Number of Samples**	**Violations**	**None**
Formula-fed Veal	Liver	246	0	246
Non-formula-fed Veal	Liver	202	0	202

Figure 24. Trenbolone Summary
2009 Domestic Scheduled Sampling Results



Zeranol

Zeranol is a xenobiotic, estrogenic agent used primarily in veterinary medicine as a growth stimulant. It has approved use in cattle and sheep, but not in pre-ruminant cattle. FSIS laboratories analyzed 146 samples for zeranol residues and detected zero violations and zero non-violative positives.

Table 20a. Zeranol Summary
2009 Domestic Scheduled Sampling Results

Production Class	Number of Samples	Number of Non-violative Positives	Number of Violations	Sample Percent Violations
Formula-fed Veal	80	0	0	0.00
Non-Formula-fed Veal	66	0	0	0.00
Total	**146**	**0**	**0**	**0.00**

Table 20b. Zeranol Residue Levels
2009 Domestic Scheduled Sampling Results

				Zeranol Levels (ppb) Found in Samples
Production Class	**Tissue**	**Number of Samples**	**Violations**	**None**
Formula-fed Veal	Liver	80	0	94
Non-formula fed Veal	Liver	66	0	97

Figure 25. Zeranol Summary
2009 Domestic Scheduled Sampling Results

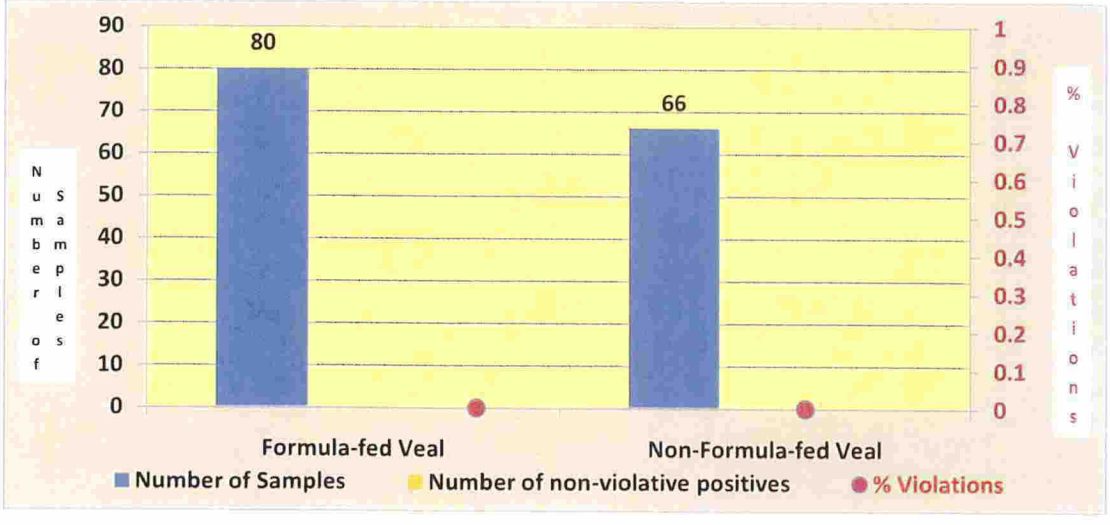
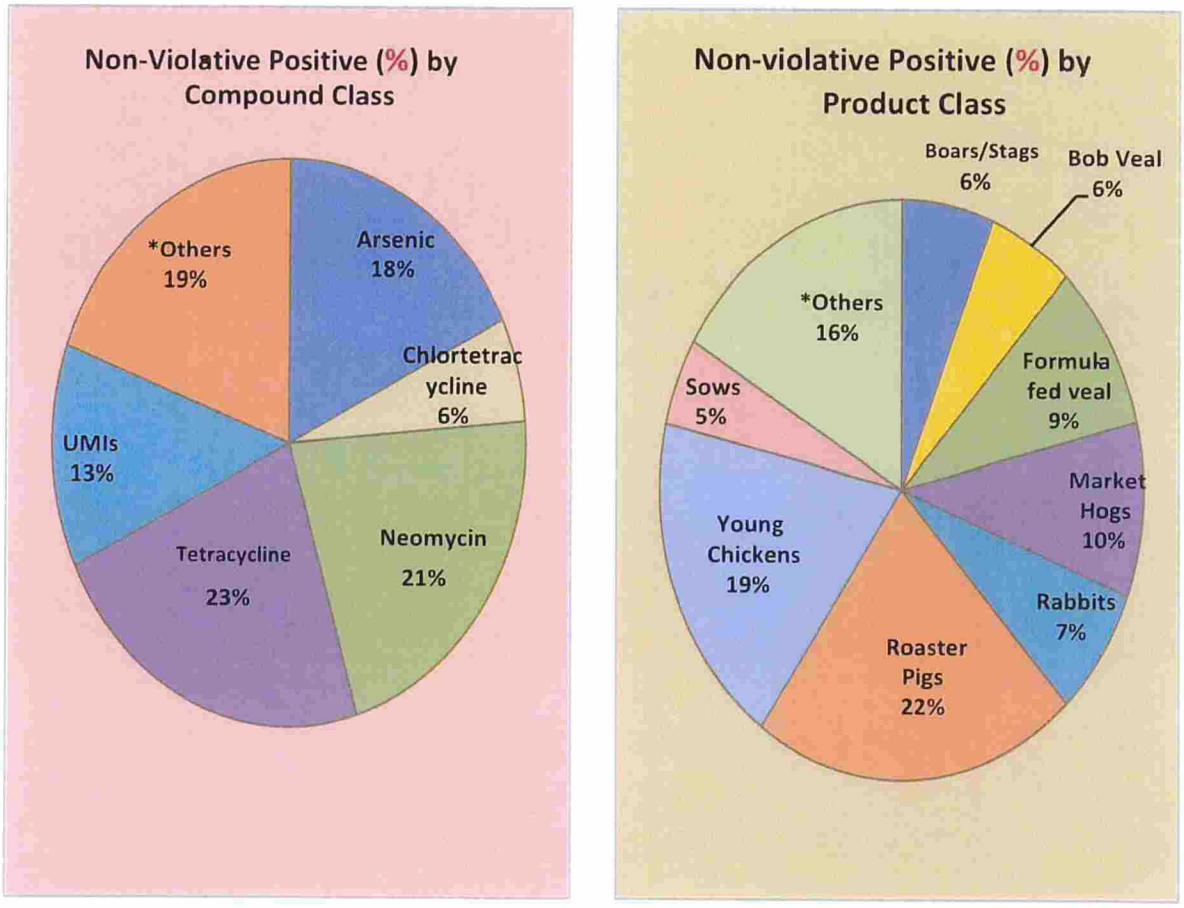


**Table 21. Distribution of Non-Violative Positive Samples by Product Class-
2009 Domestic Scheduled Sampling**

Production Class	Amikacin	Aminoglycosides	Antibiotics	Arsenic	Benzene Hexachloride (alpha, beta and delta)	beta Agonists	beta Lactams	Carbadox	Chlordane (cis and trans)	Chlortetracycline	DDT and Metabolites	Dihydrostreptomycin	Doramectin	Gentamycin Sulfate	Ivermectin	Macrolides	Moxidectin	Neomycin	Oxytetracycline	Phosalcone	Ractopamine	Tetracycline	Tetracycline Recovered/Not Violative	UNKs	TOTAL
Beef Cows													1		4		2								7
Beans/Steps		1								1	6			1				9					10	1	29
Bob veal	1						1			1		7				2		14					1		27
Bulls															2		1								3
Dairy cows																							1		1
Formula-fed veal										6			2		6		2	4					24		44
Goats					1																				1
Heavy Calves		1														1		7						1	10
Heifers										2															2
Lambs									1	3	2						3						3		12
Market hogs		1								1	3							30					10	1	46
Mature chickens										1													6		7
Mature sheep											3		1		1		2								7
Mature Turkey										1								1					3	1	6
Non-formula fed veal																		1							1
Rabbits		1																						33	34
Roaster pigs		12						3		7		2		1				28	1	2			34	13	103
Sows		2	1							1								7					6	6	23
Steers						1					5										1				7
Young chickens				84						1													3	1	89
Young turkeys										3								1				1	6	3	14
Total by Residue	1	18	1	84	1	1	1	3	1	28	19	9	4	2	13	3	10	102	1	2	1	1	107	60	
																							TOTAL Non-Violative Positive:		473

Figure 26. Distribution of Percentage Non-Violative Positive Samples by Compound Class and Product Class,
2009 Domestic Scheduled Sampling



Under the domestic scheduled sampling program, tetracycline had the highest percentage of non-violative positives (23%),followed by neomycin (21%),and arsenic (18%). Roaster pigs, young chicken (all arsenic), and market hogs were the top three ranked production classes per the total number of positive non-violative residue samples.

Scheduled Sampling — Sampling for Exposure Assessments, Production Class Data

(Summary and Detailed Tables)

Tables 22 - 43 identify information obtained from the FSIS Microbiological and Residue Computer Information System (MARCIS). These tables list summary and detailed results by production class.

Tables 22a-43a contain a summary of domestic scheduled sampling results and provide the number of samples analyzed, number of non-violative positives (compounds detected at a level equal to or below the established tolerance), number of violations, and percent of violations for each production class. Because multiple compounds can be analyzed on the same sample, one sample (one animal or a composite from one poultry flock) may have more than one violation. The summary data appears as a series of bar charts.

Tables 22b-43b detail the tissue type, number of samples analyzed, number of violations, and the range for the amount detected for each production class tested in each compound class. The number of positive results and violations are reported in intervals, with the lowest interval listed as either 0.01-0.10 parts per million (ppm) or 0.01-0.10 parts per billion (ppb) depending on the analytical method used for the given chemical compound.

Samples that do not contain detectable residues were categorized as "None". The no-detect level is not less than 0.01 ppm or less than 0.01 ppb. Appendix I contains the minimum proficiency levels.

For some production class categories,tables22b-43b may include two columns for some compound class categories. The additional columns indicate instances when residues were detected, but were not quantitated as violative (code: *8888*) or non-violative (code: *9999*).

Tables 22c-43c summarize violation results by production class. These include chemical compound, tissue type, and residue detected results (ppb or ppm).

Beef Cows

FSIS laboratories analyzed 1,235 samples from beef cows and detected one residue violation for sulfadimethoxine. Table 22a summarizes the results of the testing by compound class.

Table 22a. Beef Cows Summary
2009 Domestic Scheduled Sampling Results

Compound Class	Tissue	Number of Samples	Number of Non-violative Positives	Number of Violations	Percent Violations
Antibiotics	Kidney	277	0	0	0.00
Arsenic	Liver	279	0	0	0.00
Avermectins	Liver	228	7	0	0.00
Florfenicol	Liver	1	0	0	0.00
Flunixin	Liver	216	0	0	0.00
Sulfas	Liver	234	0	1	0.43
Total		**1,235**	**7**	**1**	**0.08**

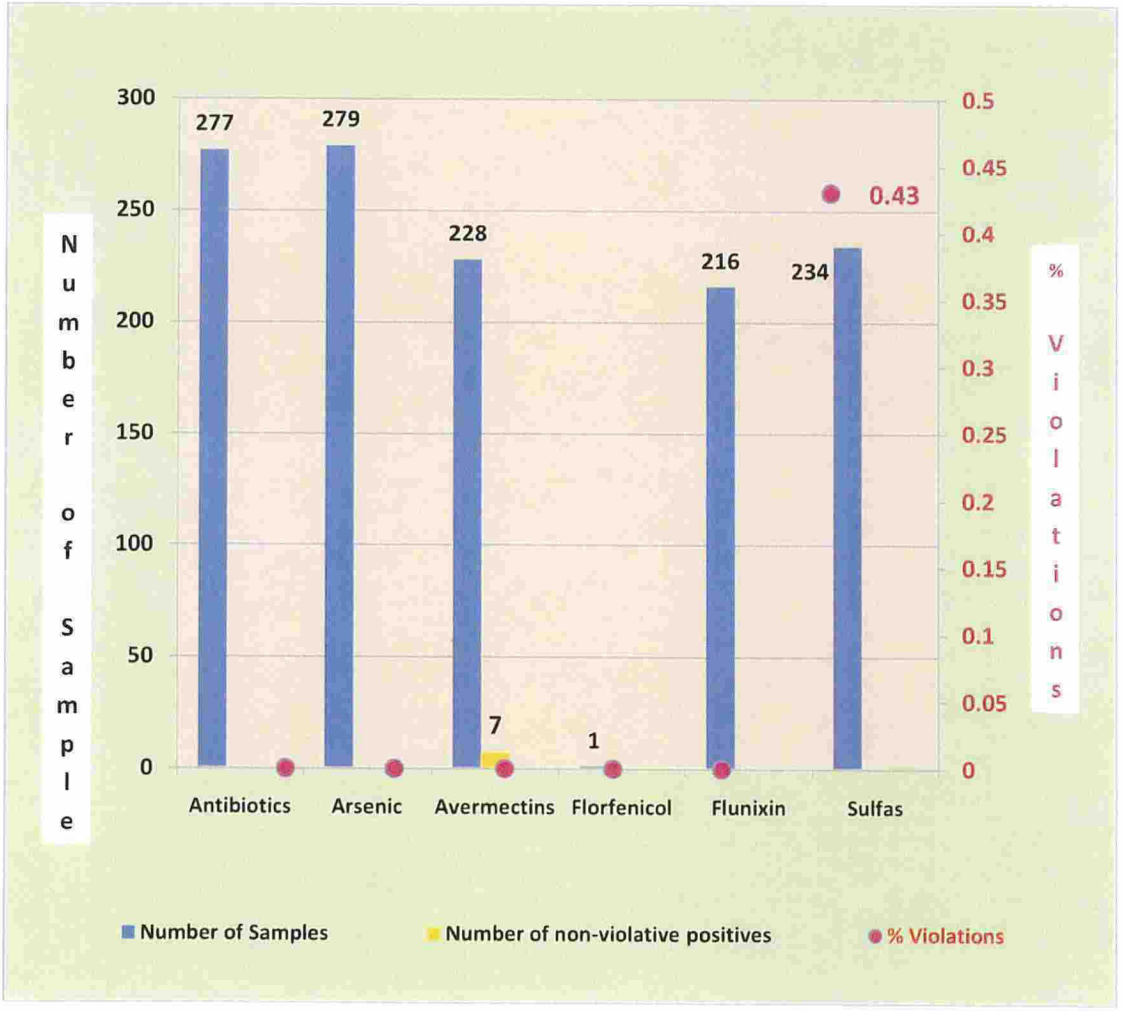
Table 22b. Beef Cows Residue Levels
2009 Domestic Scheduled Sampling Results

Compound Class	Unit	Tissue	Number of Samples	Violations	Residue Levels Found in Samples		
					None	0.31-0.50	Over 5.0
Antibiotics	ppm	Kidney	277	0	277	-	-
Arsenic	ppm	Liver	279	0	279	-	-
Avermectins	ppb	Liver	228	0	223	-	5
Florfenicol	ppm	Liver	1	0	1	-	-
Flunixin	ppb	Liver	216	0	216	-	-
Sulfas	ppm	Liver	234	1	233	1	-

Table 22c. Beef Cows Violations Report
2009 Domestic Scheduled Sampling Results

Production Class	Compound Class	Residue	Tissue	Result	Unit
Beef Cow	Sulfas	Sulfadimethoxine	Liver	0.38	ppm

Figure 27. Beef Cows Summary
2009 Domestic Scheduled Sampling Results



Boars/Stags

FSIS laboratories analyzed 388 boar/stag samples for antibiotics and pesticides and detected no residue violations.

Table 23a. Boars/Stags Summary
2009 Domestic Scheduled Sampling Results

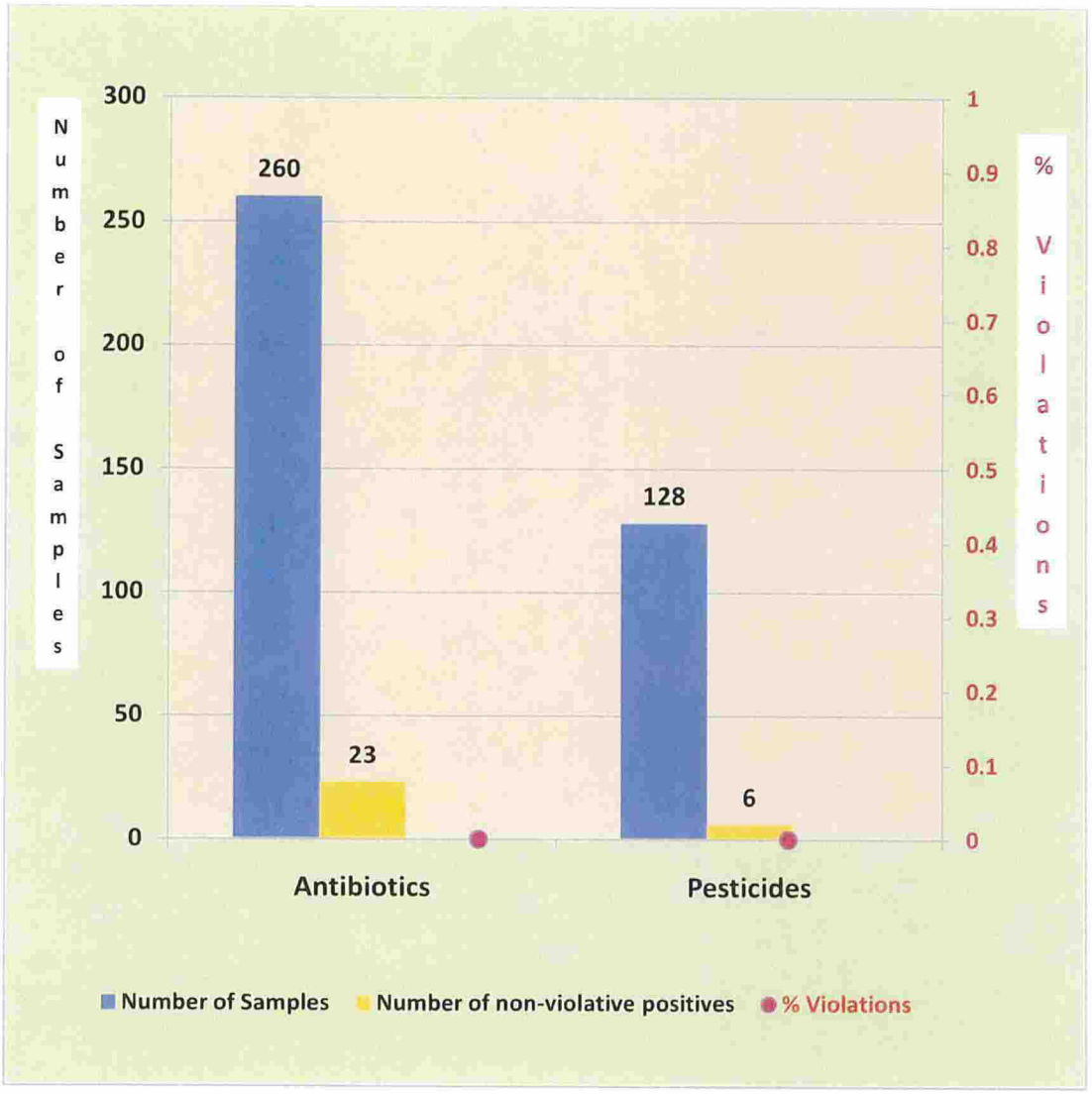
Compound Class	Tissue	Number of Samples	Number of Non-violative Positives	Number of Violations	Percent Violations
Antibiotics	Kidney	260	23	0	0.00
Pesticides	Fat	128	6	0	0.00
Total		**388**	**29**	**0**	**0.00**

Table 23b. Boars/Stags Residue Levels
2009 Domestic Scheduled Sampling Results

Compound Class	Unit	Tissue	Number of Samples	Violations	Residue Levels Found in Samples						
					None	0.01-0.10	0.11-0.20	0.21-0.30	0.31-0.50	2.51-5.00	Not-Quanti Non-Vio[1]
Antibiotics	ppm	Kidney	260	0	238	-	-	-	1	-	21
Pesticides	ppm	Fat	128	0	122	2	1	1	1	1	-

[1] The residue levels were not determined because any amount of the identified residue does not constitute a violation.

Figure 28. Boars/Stags Summary
2009 Domestic Scheduled Sampling Results



Bob Veal

FSIS laboratories analyzed 712 samples from bob veal and detected two residue violations, one for neomycin and one florfenicol.

Table 24a. Bob Veal Summary
2009 Domestic Scheduled Sampling Results

Compound Class	Tissue	Number of Samples	Number of Non-violative Positives	Number of Violations	Percent Violations
Antibiotics	Kidney	259	27	1	0.39
Chloramphenicol	Muscle	247	0	**0**	0.00
Florfenicol	Liver	116	0	1	0.86
Sulfas	Liver	90	0	0	0.00
Total		**712**	**27**	**2**	**0.28**

Table 24b. Bob Veal Residue Levels
2009 Domestic Scheduled Sampling Results

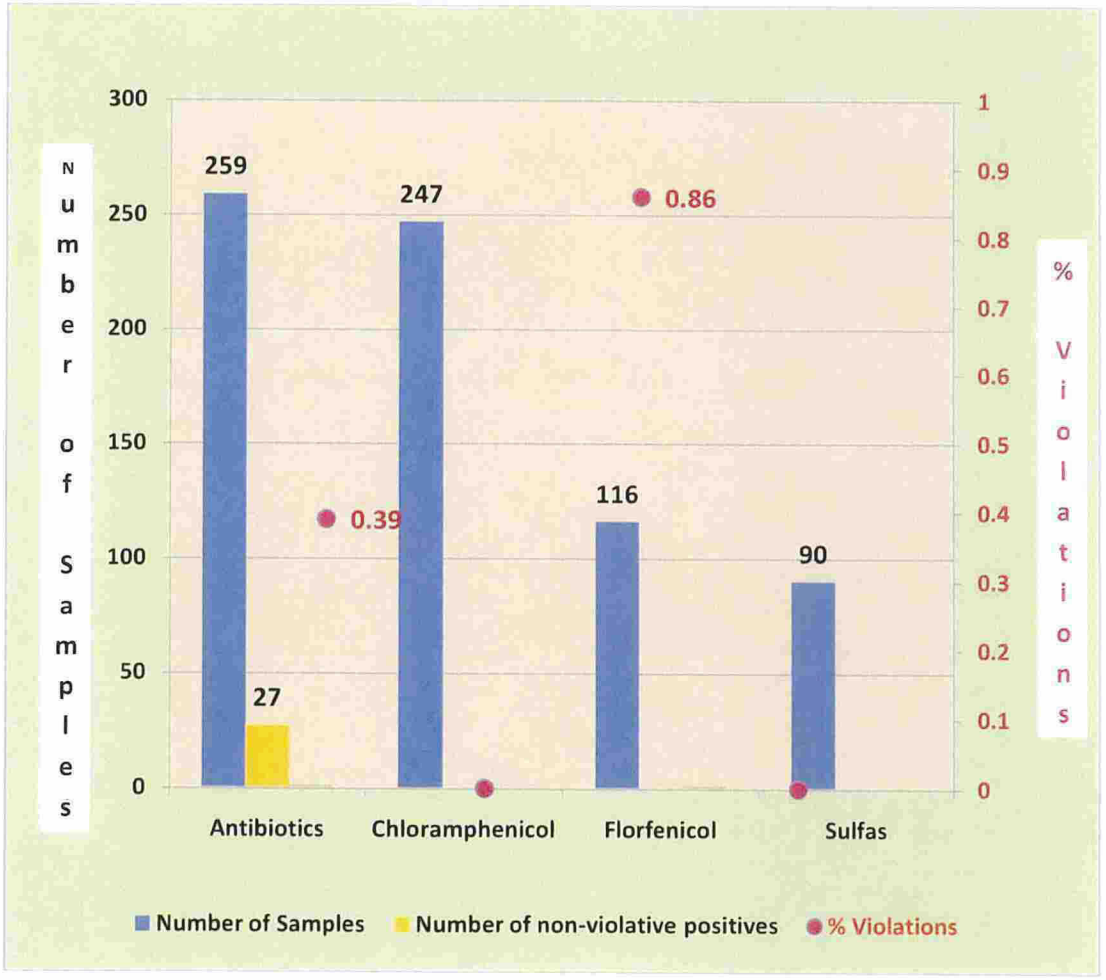
Compound Class	Unit	Tissue	Number of Samples	Violations	Residue Levels Found in Samples				
					None	1.01-2.51	2.51-5.00	> 5.00	Not-Quanti Non-Vio[1]
Antibiotics	ppm	Kidney	259	1	234	5	2	1	17
Chloramphenicol	ppb	Muscle	247	0	247	-	-	-	-
Florfenicol	ppm	Liver	116	1	115	-	1	-	-
Sulfas	ppm	Liver	90	0	90	-	-	-	-

[1] The residue levels were not determined because any amount of the identified residue does not constitute a violation.

Table 24c. Bob Veal Violations Report
2009 Domestic Scheduled Sampling Results

Production Class	Compound Class	Residue	Tissue	Result	Unit
Bob Veal	Antibiotics	Neomycin	Kidney	17.89	ppm
Bob Veal	Florfenicol	Florfenicol	Liver	4.4	ppm

Figure 29. Bob Veal Summary
2009 Domestic Scheduled Sampling Results



Bulls

FSIS laboratories analyzed 573 bull samples and detected two residue violations, one for ivermectin and one for sulfamethazine. Table 25a summarizes the results of the testing by compound class.

Table 25a. Bulls Summary
2009 Domestic Scheduled Sampling Results

Compound Class	Tissue	Number of Samples	Number of Non-violative Positives	Number of Violations	Percent Violations
Antibiotics	Kidney	257	0	0	0.00
Avermectins	Liver	137	3	1	0.73
Sulfas	Liver	179	0	1	0.56
Total		**573**	**3**	**2**	**0.35**

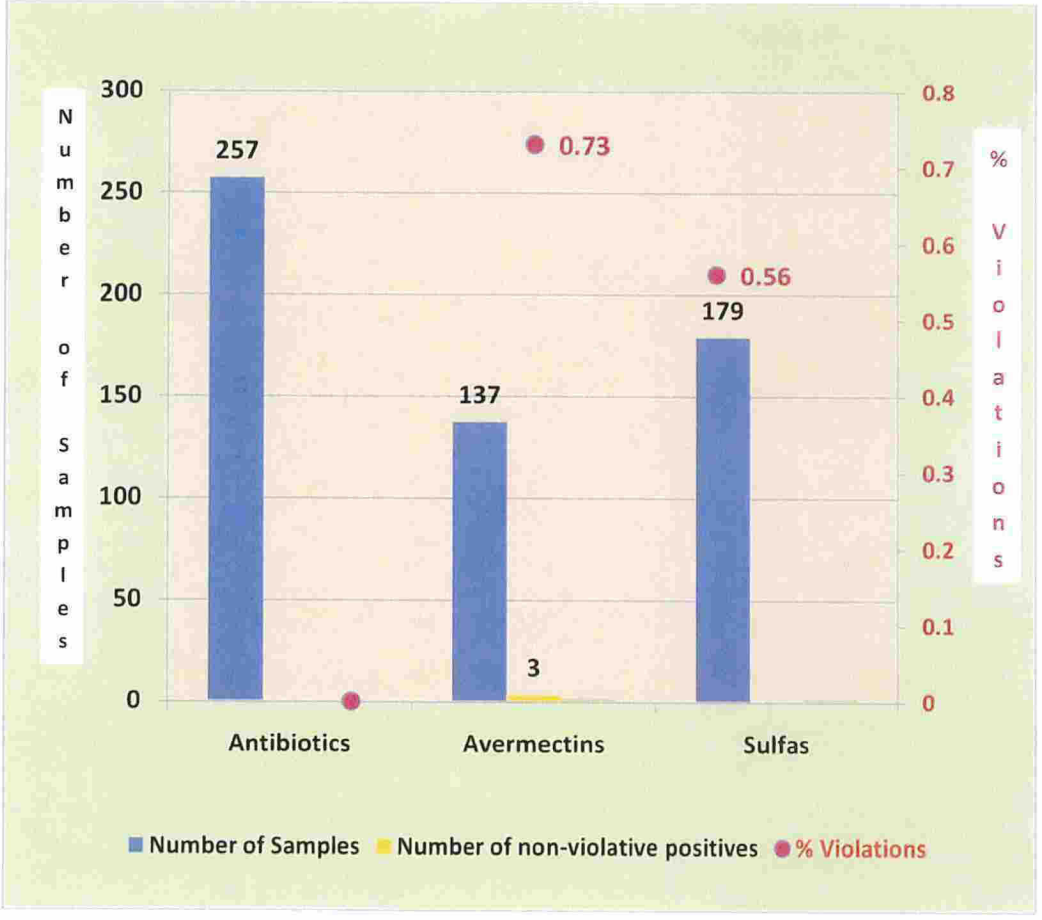
Table 25b. Bulls Residue Levels
Bulls 2009 Domestic Scheduled Sampling Results

Compound Class	Unit	Tissue	Number of Samples	Violations	Residue Levels Found in Samples		
					None	0.11-0.20	> 5.00
Antibiotics	ppm	Kidney	257	0	257	-	-
Avermectins	ppb	Liver	137	1	133	-	4
Sulfas	ppm	Liver	179	1	178	1	-

Table 25c. Bulls Violations Report
2009 Domestic Scheduled Sampling Results

Production Class	Compound Class	Residue	Tissue	Result	Unit
Bulls	Avermectins	Ivermectin	Liver	338	ppb
Bulls	Sulfas	Sulfamethazine	Liver	0.11	ppm

Figure 30. Bulls Summary
2009 Domestic Scheduled Sampling Results



Dairy Cows

FSIS laboratories analyzed 1,837 samples from dairy cows and detected one violation for Furazolidone.

Table 26a. Dairy Cows Summary
2009 Domestic Scheduled Sampling Results

Compound Class	Tissue	Number of Samples	Number of Non-violative Positives	Number of Violations	Percent Violations
Antibiotics	Kidney	295	1	0	0
Arsenic	Liver	277	0	0	0
Chloramphenicol	Muscle	281	0	0	0
Florfenicol	Liver	207	0	0	0
Flunixin	Liver	231	0	0	0
Furazolidone	Liver	214	0	1	0.47
Sulfas	Liver	116	0	0	0
Thyreostats	Muscle	216	0	0	0
Total		**1,837**	**1**	**1**	**0.05**

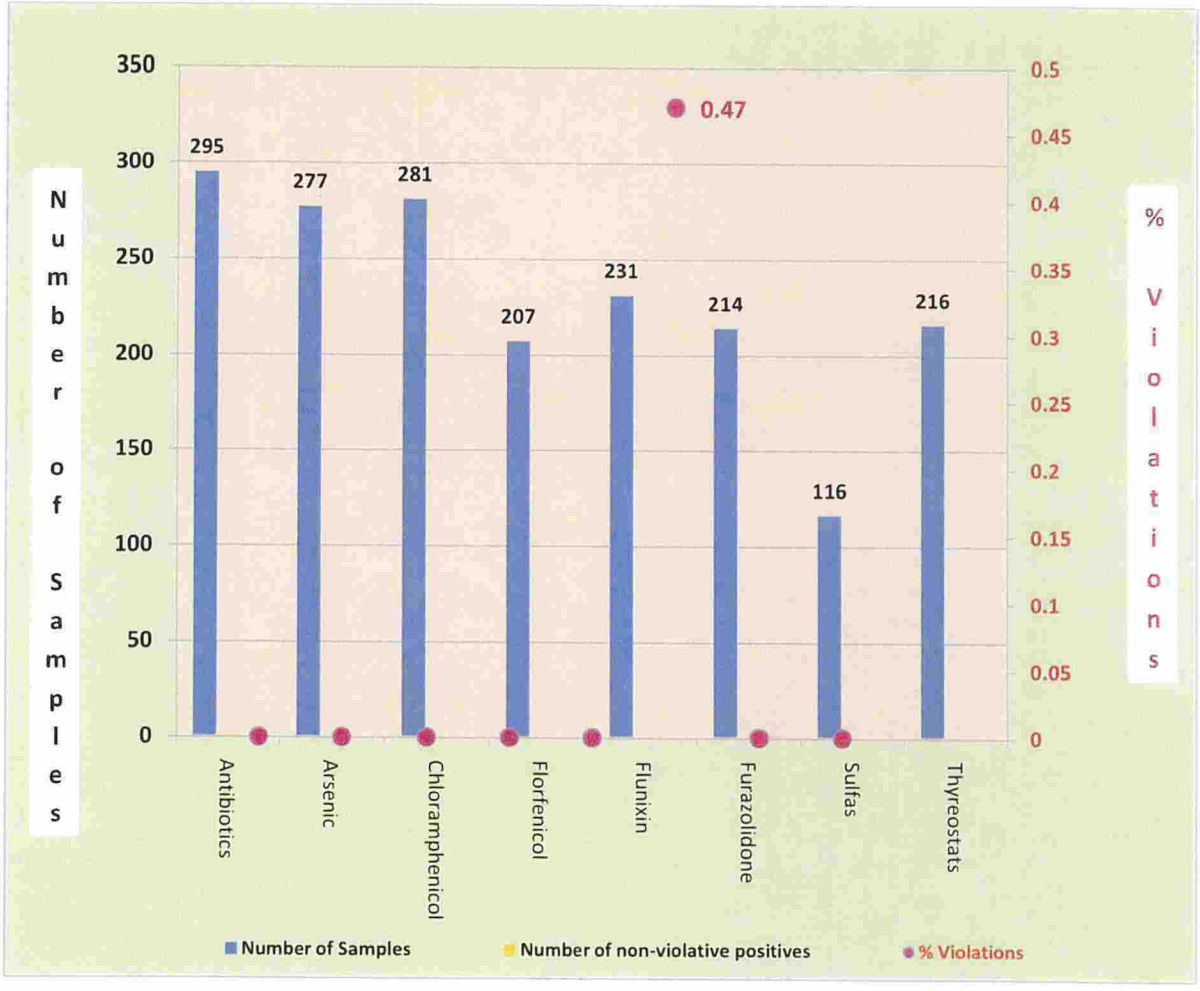
Table 26b. Dairy Cows Residue Levels
2009 Domestic Scheduled Sampling Results

Compound Class	Unit	Tissue	Number of Samples	Violations	Residue Levels Found in Samples		
					None	Not-Quanti Non-Vio	Not-Quanti Vio
Antibiotics	ppm	Kidney	295	0	294	1	-
Arsenic	ppm	Liver	277	0	277	-	-
Chloramphenicol	ppb	Muscle	281	0	281	-	-
Florfenicol	ppm	Liver	207	0	207	-	-
Flunixin	ppb	Liver	231	0	231	-	-
Furazolidone	ppb	Liver	214	1	213	-	1
Sulfas	ppm	Liver	116	0	116	-	-
Thyreostats	ppb	Muscle	216	0	216	-	-

Table 26c. Dairy Cows Violations Report
2009 Domestic Scheduled Sampling Results

Production Class	Compound Class	Residue	Tissue	Result	Unit
Dairy Cow	Furazolidone	Furazolidone	Liver	8888[1]	ppb

Figure 31. Dairy Cows Summary
2009 Domestic Scheduled Sampling Results



[1] 8888 value indicates the result is violative, but not quantified. The residue levels were not determined because any amount of the identified residue constitutes a violation.

Ducks

FSIS laboratories analyzed 291 ducks samples and detected zero residue violations.

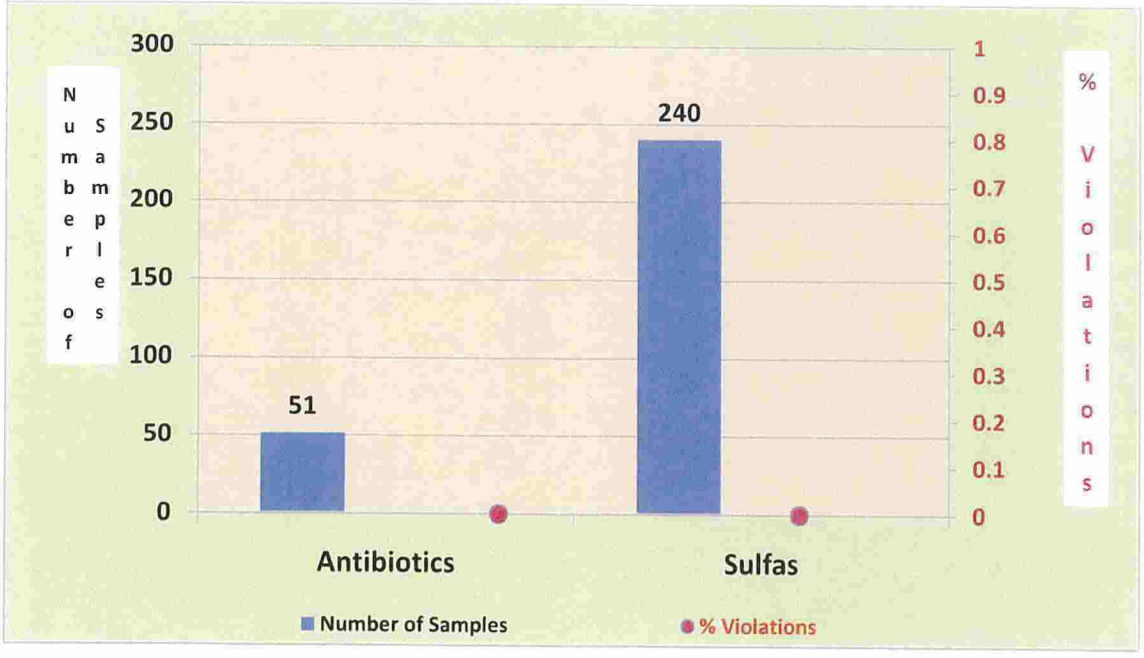
Table 27a. Ducks Summary
2009 Domestic Scheduled Sampling Results

Compound Class	Tissue	Number of Samples	Number of Non-violative Positives	Number of Violations	Percent Violations
Antibiotics	Kidney	51	0	0	0.00
Sulfas	Liver	240	0	0	0.00
Total		**291**	**0**	**0**	**0.00**

Table 27b. Ducks Residue Levels
2009 Domestic Scheduled Sampling Results

Compound Class	Unit	Tissue	Number of Samples	Violations	Residue Levels Found in Samples
					None
Antibiotics	ppm	Kidney	51	0	51
Sulfas	ppm	Liver	240	0	240

Figure 32. Ducks Summary
2009 Domestic Scheduled Sampling Results



Formula-fed Veal

FSIS laboratories analyzed 1,161 samples from formula-fed veal and detected one violation for sulfadimethoxine.

Table 28a. Formula-fed Veal Summary
2009 Domestic Scheduled Sampling Results

Compound Class	Tissue	Number of Samples	Number of Non-violative Positives	Number of Violations	Percent Violations
Antibiotics	Kidney	338	34	0	0.00
Avermectins	Liver	250	10	0	0.00
Sulfas	Liver	247	0	1	0.40
Trenbolone	Liver	246	0	0	0.00
Zeranol	Liver	80	0	0	0.00
Total		**1,161**	**44**	**1**	**0.09**

Table 28b. Formula-fed Veal Residue Levels
2009 Domestic Scheduled Sampling Results

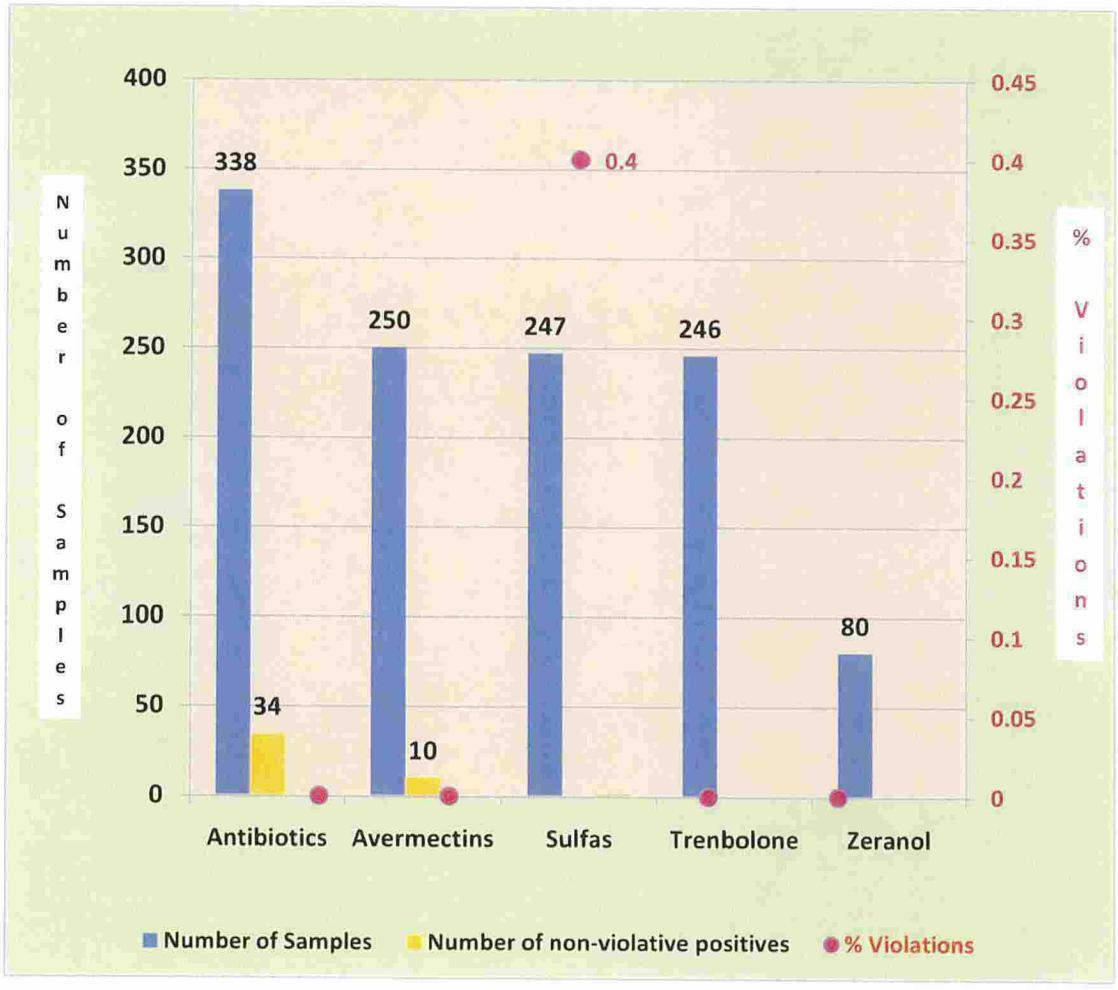
Compound Class	Unit	Tissue	Number of Samples	Violations	Residue Levels Found in Samples								
					None	0.11-0.20	0.21-0.30	0.31-0.50	0.51-1.00	1.01-2.51	2.51-5.00	> 5.00	Not-Quanti Non-Vio[1]
Antibiotics	ppm	Kidney	338	0	304	1	-	1	1	1	1	-	29
Avermectins	ppb	Liver	250	0	244	-	-	-	-	-	-	6	-
Sulfas	ppm	Liver	247	1	246	-	1	-	-	-	-	-	-
Trenbolone	ppm	Liver	246	0	246	-	-	-	-	-	-	-	-
Zeranol	ppb	Liver	80	0	80	-	-	-	-	-	-	-	-

[1] The residue levels were not determined because any amount of the identified residue does not constitute a violation.

Table 28c. Formula-fed Veal Violations Report
2009 Domestic Scheduled Sampling Results

Production Class	Compound Class	Residue	Tissue	Result	Unit
Formula fed Veal	Sulfas	Sulfadimethoxine	Liver	0.22	ppm

Figure 33. Formula-fed Veal Summary
2009 Domestic Scheduled Sampling Results



Geese

FSIS laboratories analyzed 20 geese samples and detected zero residue violations. Table 29a summarizes the results of the testing by compound class.

Table 29a. Geese Summary
2009 Domestic Scheduled Sampling Results

Compound Class	Tissue	Number of Samples	Number of Non-violative Positives	Number of Violations	Percent Violations
Antibiotics	Kidney	20	0	0	0.00
Total		**20**	**0**	**0**	**0.0**

Goats

FSIS laboratories analyzed 293 goat samples and detected one residue violation for avermectins.

Table 30a. Goats Summary
2009 Domestic Scheduled Sampling Results

Compound Class	Tissue	Number of Samples	Number of Non-violative Positives	Number of Violations	Percent Violations
Antibiotics	Kidney	63	0	0	0.00
Avermectins	Liver	86	0	1	1.16
beta-Agonists	Liver	49	0	0	0.00
Pesticides	Fat	95	1	0	0.00
Total		**293**	**1**	**1**	**0.34**

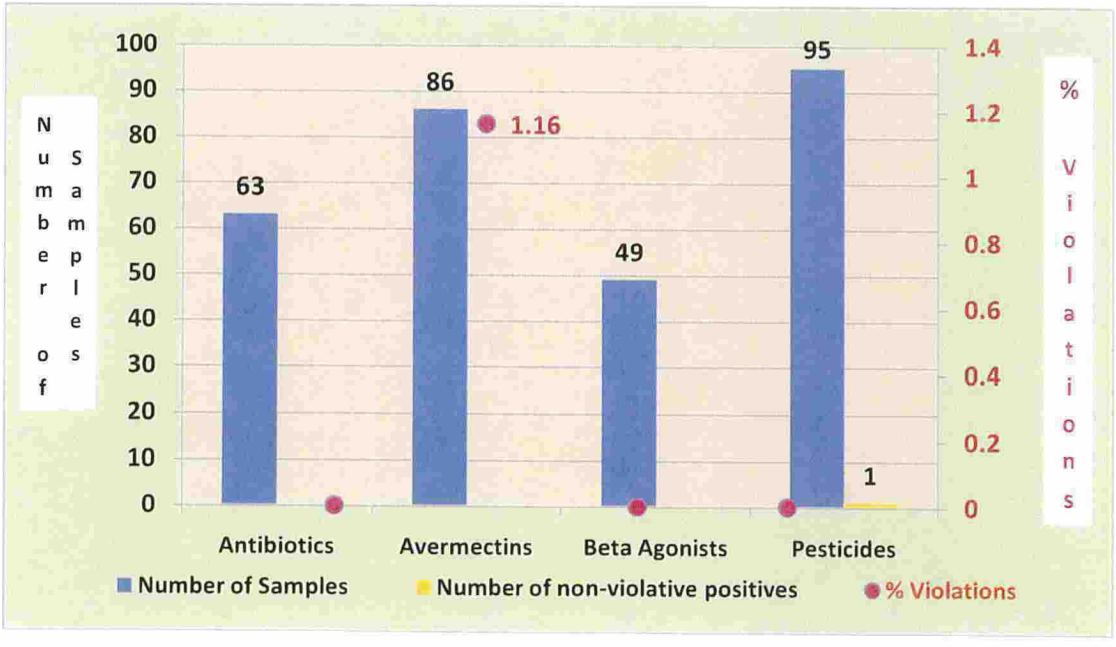
Table 30b. Goats Residue Levels
2009 Domestic Scheduled Sampling Results

Compound Class	Unit	Tissue	Number of Samples	Violations	Residue Levels Found in Samples		
					None	0.11-0.20	> 5.00
Antibiotics	ppm	Kidney	63	0	63	-	-
Avermectins	ppb	Liver	86	1	85	-	1
beta-Agonists	ppb	Liver	49	0	49	-	-
Pesticides	ppm	Fat	95	0	94	1	-

Table 30c. Goats Violations Report
2009 Domestic Scheduled Sampling Results

Production Class	Compound Class	Residue	Tissue	Result	Unit
Goat	Avermectins	Ivermectin	Liver	145	ppb

Figure 34. Goats Summary
2009 Domestic Scheduled Sampling Results



Heavy Calves

FSIS laboratories analyzed 334 samples from heavy calves and detected one violation for sulfadimethoxine.

Table 31a. Heavy Calves Summary
2009 Domestic Scheduled Sampling Results

Compound Class	Tissue	Number of Samples	Number of Non-violative Positives	Number of Violations	Percent Violations
Antibiotics	Kidney	68	10	0	0.00
Avermectins	Liver	81	0	0	0.00
Flunixin	Liver	132	0	0	0.00
Sulfas	Liver	53	0	1	1.89
Total		**334**	**10**	**1**	**0.30**

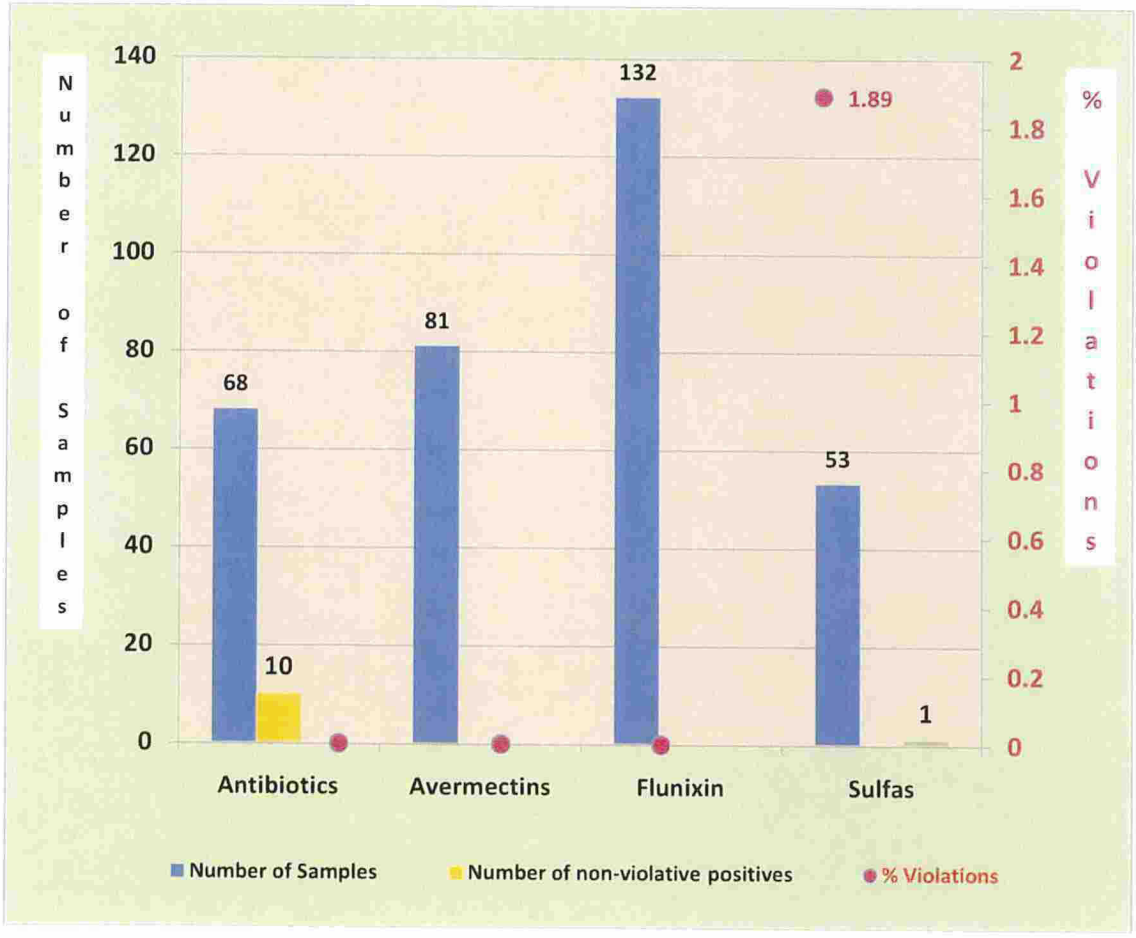
Table 31b. Heavy Calves Residue Levels
2009 Domestic Scheduled Sampling Results

Compound Class	Unit	Tissue	Number of Samples	Violations	Residue Levels Found in Samples					
					None	0.21-0.30	0.31-0.50	0.51-1.00	> 5.00	Not Quanti Not Vio
Antibiotics	ppm	Kidney	68	0	60	1	1	1	1	4
Avermectins	ppb	Liver	81	0	81	-	-	-	-	-
Flunixin	ppb	Liver	132	0	132	-	-	-	-	-
Sulfas	ppm	Liver	53	1	52	-	1	-	-	-

Table 31c. Heavy Calves Violations Report
2009 Domestic Scheduled Sampling Results

Production Class	Compound Class	Residue	Tissue	Result	Unit
Heavy Calves	Sulfas	Sulfadimethoxine	Liver	0.33	ppm

Figure 35. Heavy Calves Summary
2009 Domestic Scheduled Sampling Results



Heifers

FSIS laboratories analyzed 443 heifer samples and detected zero residue violations.

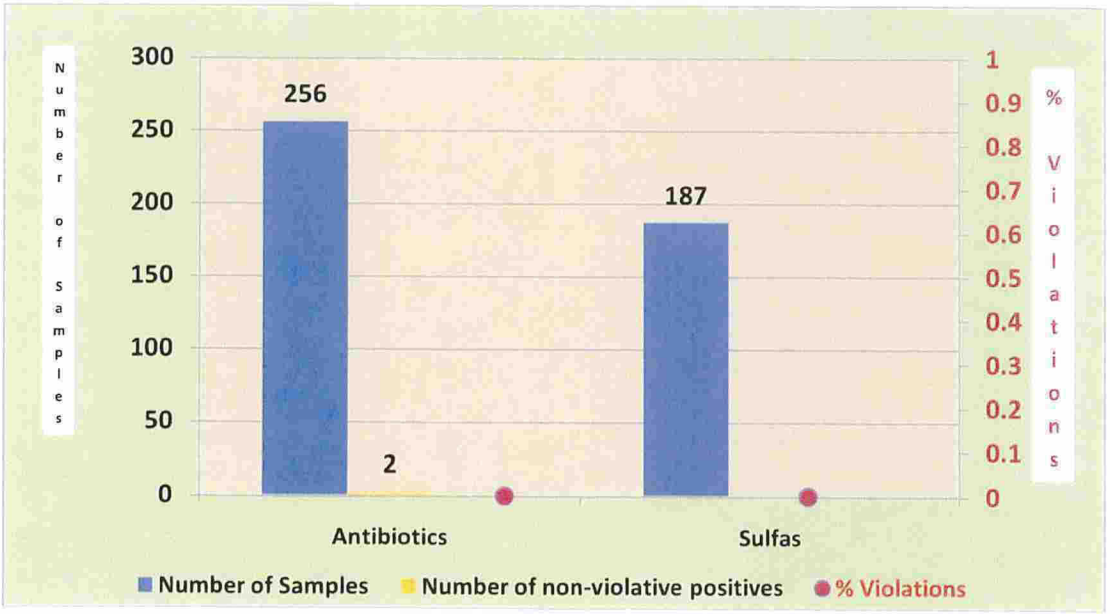
Table 32a. Heifers Summary
2009 Domestic Scheduled Sampling Results

Compound Class	Tissue	Number of Samples	Number of Non-violative Positives	Number of Violations	Percent Violations
Antibiotics	Kidney	256	2	0	0.00
Sulfas	Liver	187	0	0	0.00
Total		**443**	**2**	**0**	**0.00**

Table 32b. Heifers Residue Levels
2009 Domestic Scheduled Sampling Results

Compound Class	Unit	Tissue	Number of Samples	Violations	Residue Levels Found in Samples		
					None	0.51-1.00	1.01-2.51
Antibiotics	ppm	Kidney	256	0	254	1	1
Sulfas	ppm	Liver	187	0	187	-	-

Figure 36. Heifers Summary
2009 Domestic Scheduled Sampling Results



Lambs

FSIS laboratories analyzed 561 samples from lambs and detected zero residue violations.

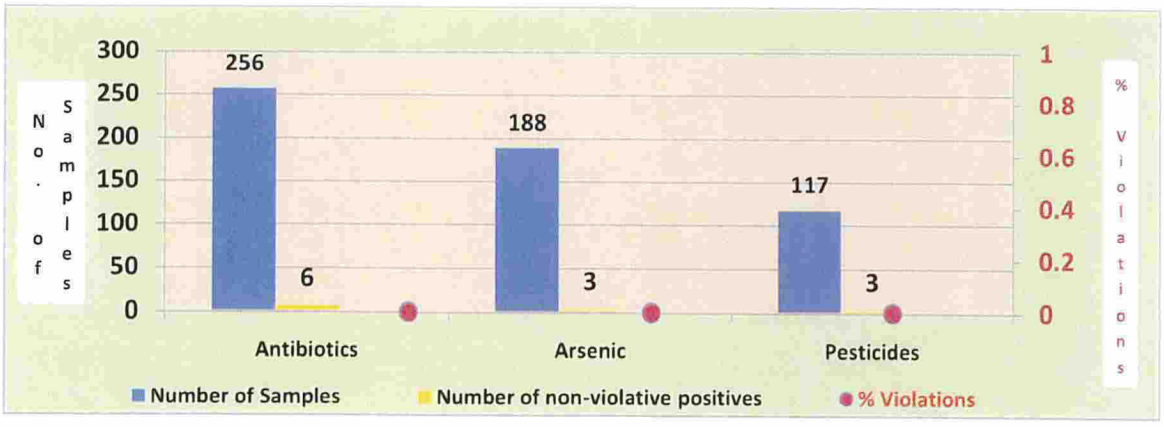
Table 33a. Lambs Summary
2009 Domestic Scheduled Sampling Results

Compound Class	Tissue	Number of Samples	Number of Non-violative Positives	Number of Violations	Percent Violations
Antibiotics	Kidney	256	6	0	0.00
Avermectins	Liver	188	3	0	0.00
Pesticides	Fat	117	3	0	0.00
Total		**561**	**12**	**0**	**0.00**

Table 33b. Lambs Residue Levels
2009 Domestic Scheduled Sampling Results

Compound Class	Unit	Tissue	Number of Samples	Violations	Residue Levels Found in Samples					
					None	0.11-0.20	0.21-0.30	0.31-0.50	> 5.00	Not-Quanti Non-Vio[1]
Antibiotics	ppm	Kidney	256	0	250	1	1	1	-	3
Avermectins	ppb	Liver	188	0	185	-	-	-	3	-
Pesticides	ppm	Fat	117	0	114	3	-	-	-	-

Figure 37. Lamb Summary
2009 Domestic Scheduled Sampling Results



[1] The residue levels were not determined because any amount of the identified residue does not constitute a violation.

Market hogs

FSIS laboratories analyzed 1,610 market hogs samples and detected one residue violation of sulfamethazine.

Table 34a. Market Hogs Summary
2009 Domestic Scheduled Sampling Results

Compound Class	Tissue	Number of Samples	Number of Non-violative Positives	Number of Violations	Percent Violations
Antibiotics	Kidney	296	43	0	0.00
Arsenic	Liver	281	0	0	0.00
Avermectins	Liver	216	0	0	0.00
Carbadox	Liver	193	0	0	0.00
Furazolidone	Liver	221	0	0	0.00
Pesticides	Fat	302	3	0	0.00
Sulfas	Liver	101	0	1	0.99
Total		**1,610**	**46**	**1**	**0.06**

Table 34b. Market Hogs Residue Levels
2009 Domestic Scheduled Sampling Results

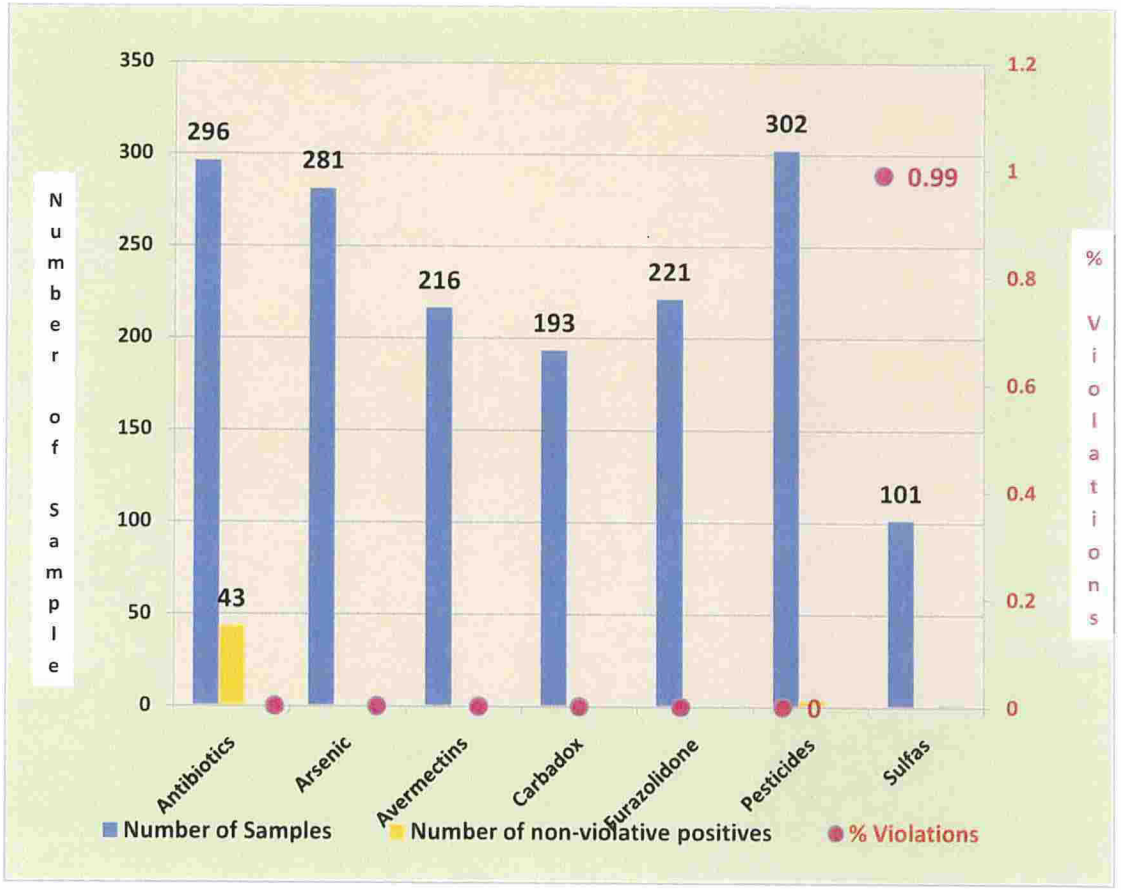
Compound Class	Unit	Tissue	Number of Samples	Violations	Residue Levels Found in Samples				
					None	0.31-0.50	0.51-1.00	1.01-2.51	Non-Quanti Non-Vio[1]
Antibiotics	ppm	Kidney	296	0	254	-	1	-	41
Arsenic	ppm	Liver	281	0	281	-	-	-	-
Avermectins	ppb	Liver	216	0	216	-	-	-	-
Carbadox	ppb	Liver	193	0	193	-	-	-	-
Furazolidone	ppb	Liver	221	0	221	-	-	-	-
Pesticides	ppm	Fat	302	0	299	3	-	-	-
Sulfas	ppm	Liver	101	1	100	-	-	1	-

[1] The residue levels were not determined because any amount of the identified residue does not constitute a violation.

Table 34c. Market Hogs Violation Report
2009 Domestic Scheduled Sampling Results

Production class	Compound class	Residue	Tissue	Result	Unit
Market Hog	Sulfas	Sulfamethazine	Liver	1.66	ppm

Figure 38. Market Hogs Summary
2009 Domestic Scheduled Sampling Results



Mature Chickens

FSIS laboratories analyzed 910 samples from mature chickens and detected zero residue violations.

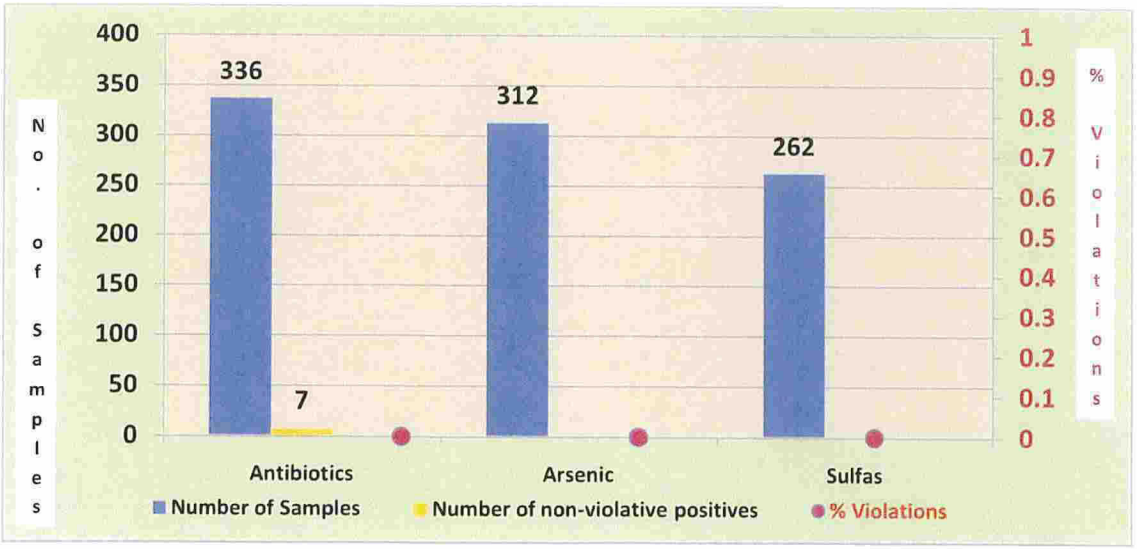
Table 35a. Mature Chickens Summary
2009 Domestic Scheduled Sampling Results

Compound Class	Tissue	Number of Samples	Number of Non-violative Positives	Number of Violations	Percent Violations
Antibiotics	Kidney	336	7	0	0.00
Arsenic	Liver	312	0	0	0.00
Sulfas	Liver	262	0	0	0.00
Total		**910**	**7**	**0**	**0.00**

Table 35b. Mature Chickens Residue Levels
2009 Domestic Scheduled Sampling Results

Compound Class	Unit	Tissue	Number of Samples	Violations	Residue Levels Found in Samples		
					None	0.51-1.00	Not-Quanti Non-Vio
Antibiotics	ppm	Kidney	336	0	329	1	6
Arsenic	ppm	Liver	312	0	312	-	-
Sulfas	ppm	Liver	262	0	262	-	-

Figure 39. Mature Chicken Summary
2009 Domestic Scheduled Sampling Results



Mature Sheep

FSIS laboratories analyzed 449 mature sheep samples and detected zero residue violations.

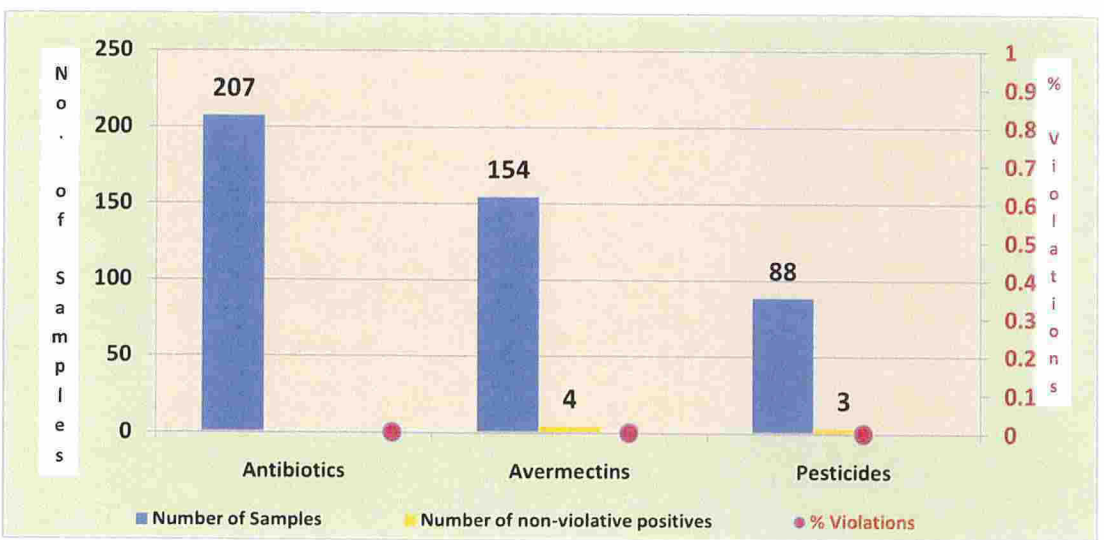
Table 36a: Mature Sheep Summary
2009 Domestic Scheduled Sampling Results

Compound Class	Tissue	Number of Samples	Number of Non-violative Positives	Number of Violations	Percent Violations
Antibiotics	Kidney	207	0	0	0.00
Avermectins	Liver	154	4	0	0.00
Pesticides	Fat	88	3	0	0.00
Total		**449**	**7**	**0**	**0.00**

Table 36b: Mature Sheep Residue Levels
2009 Domestic Scheduled Sampling Results

Compound Class	Unit	Tissue	Number of Samples	Violations	Residue Levels Found in Samples				
					None	0.01-0.10	0.11-0.20	0.21-0.30	> 5.00
Antibiotics	ppm	Kidney	207	0	207	-	-	-	-
Avermectins	ppb	Liver	154	0	152	-	-	-	2
Pesticides	ppm	Fat	88	0	85	1	1	1	-

Figure 40: Mature Sheep Summary
2009 Domestic Scheduled Sampling Results



Mature Turkeys

FSIS laboratories analyzed 530 samples from mature turkeys and detected zero residue violations.

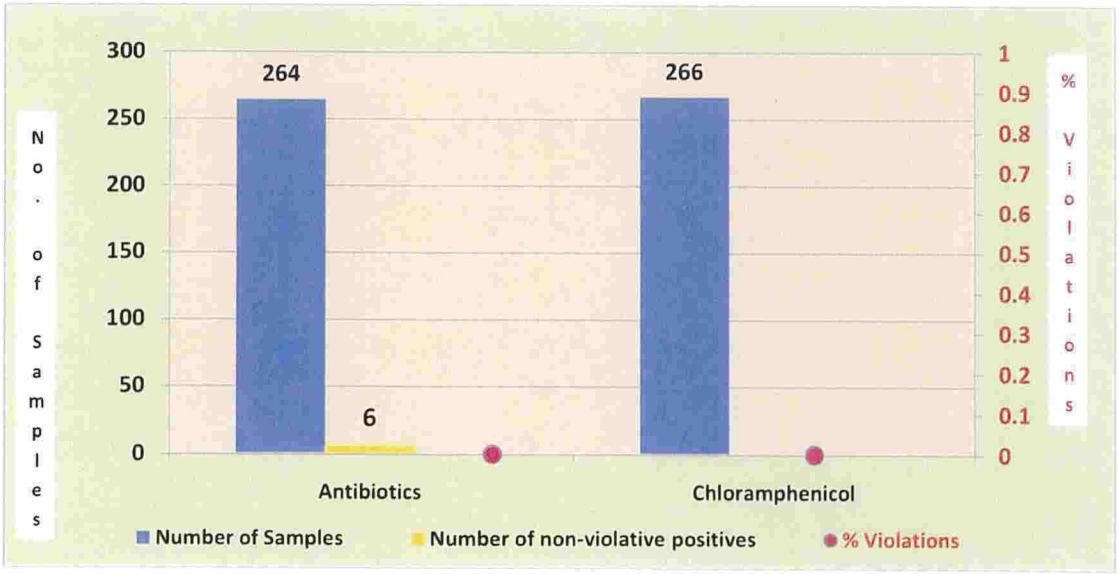
Table 37a. Mature Turkeys Summary
2009 Domestic Scheduled Sampling Results

Compound Class	Tissue	Number of Samples	Number of Non-violative Positives	Number of Violations	Percent Violations
Antibiotics	Kidney	264	6	0	0.00
Chloramphenicol	Muscle	266	0	0	0.00
Total		**530**	**6**	**0**	**0.00**

Table 37b. Mature Turkeys Residue Levels
2009 Domestic Scheduled Sampling Results

Compound Class	Unit	Tissue	Number of Samples	Violations	Residue Levels Found in Samples		
					None	0.51-1.00	Not-Quanti Non-Vio
Antibiotics	Ppm	Kidney	264	0	258	1	5
Chloramphenicol	Ppb	Muscle	266	0	266	-	-

Figure 41. Mature Turkeys Summary
2009 Domestic Scheduled Sampling Results



Non-formula Fed Veal

FSIS laboratories analyzed 798 non-formula fed veal samples and detected five residue violations, which included one neomycin, one gentamicin sulfate, and three florfenicol.

Table 38a. Non-formula fed Veal Summary
2009 Domestic Scheduled Sampling Results

Compound Class	Tissue	Number of Samples	Number of Non-violative Positives	Number of Violations	Percent Violations
Antibiotics	Kidney	106	1	2	1.89
Avermectins	Liver	84	0	0	0.00
beta-Agonists	Liver	153	0	0	0.00
Florfenicol	Liver	102	0	3	2.94
Sulfas	Liver	85	0	0	0.00
Trenbolone	Liver	202	0	0	0.00
Zeranol	Liver	66	0	0	0.00
Total		**798**	**1**	**5**	**0.63**

Table 38b. Non-formula Fed Veal Residue Levels
2009 Domestic Scheduled Sampling Results

Compound Class	Unit	Tissue	Number of Samples	Violations	Residue Levels Found in Samples				
					None	0.51-1.00	1.01-2.51	Non-Quanti Non-Vio[1]	Non-Quanti Vio[2]
Antibiotics	ppm	Kidney	106	2	102	-	1	1	2
Avermectins	ppb	Liver	84	0	84	-	-	-	-
beta- Agonists	ppb	Liver	153	0	153	-	-	-	-
Florfenicol	ppm	Liver	102	3	99	2	1	-	-
Sulfas	ppm	Liver	85	0	85	-	-	-	-
Trenbolone	ppm	Liver	202	0	202	-	-	-	-
Zeranol	ppb	Liver	66	0	66	-	-	-	-

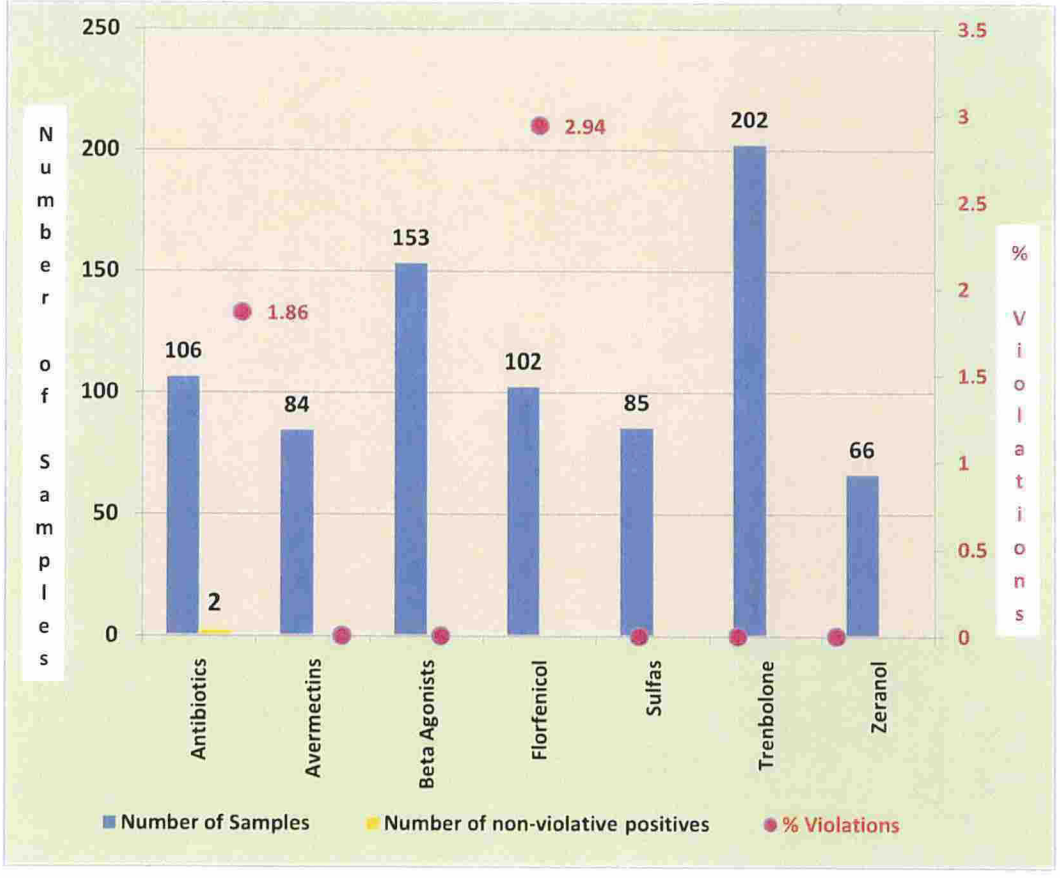
[1] The residue levels were not determined because any amount of the identified residue does not constitute a violation.

[2] The residue levels were not determined because any amount of the identified residue constitutes a violation.

Table 38c. Non-formula Fed Veal Violations Report
2009 Domestic Scheduled Sampling Results

Production Class	Compound Class	Residue	Tissue	Result	Unit
Non-formula Fed Veal	Antibiotics	Neomycin	Kidney	8888	ppm
Non-formula Fed Veal	Antibiotics	Gentamicin Sulfate	Kidney	8888	ppm
Non-formula Fed Veal	Florfenicol	Florfenicol	Liver	0.68	ppm
Non-formula Fed Veal	Florfenicol	Florfenicol	Liver	0.99	ppm
Non-formula Fed Veal	Florfenicol	Florfenicol	Liver	2.11	ppm

Figure 42. Non-formula Fed Veal Summary
2009 Domestic Scheduled Sampling Results



Rabbits

FSIS laboratories analyzed 52 samples from rabbits and detected zero residue violations.

Table 39a. Rabbits Summary
2009 Domestic Scheduled Sampling Results

Compound Class	Tissue	Number of Samples	Number of Non-violative Positives	Number of Violations	Percent Violations
Antibiotics	Kidney	52	34	0	0.00
Total		**52**	**34**	**0**	**0.00**

Table 38b. Rabbits Residue Levels
2009 Domestic Scheduled Sampling Results

Compound Class	Unit	Tissue	Number of Samples	Violations	Residue Levels Found in Samples	
					None	Non-Quanti Non-Vio[1]
Antibiotics	ppm	Kidney	52	0	19	33

[1] The residue levels were not determined because any amount of the identified residue does not constitute a violation.

Roaster Pigs

FSIS laboratories analyzed 844 roaster pig samples and detected four residue violations, which included two carbadox, one PBDE, and one sulfamethazine.

Table 40a. Roaster Pigs Summary
2009 Domestic Scheduled Sampling Results

Compound Class	Tissue	Number of Samples	Number of Non-violative Positives	Number of Violations	Percent Violations
Antibiotics	Kidney	297	98	0	0.00
Carbadox	Liver	179	3	2	1.12
Pesticides	Fat	269	2	1	0.37
Sulfas	Liver	99	0	1	1.01
Total		**844**	**103**	**4**	**0.47**

Table 40b. Roaster Pigs Residue Levels
2009 Domestic Scheduled Sampling Results

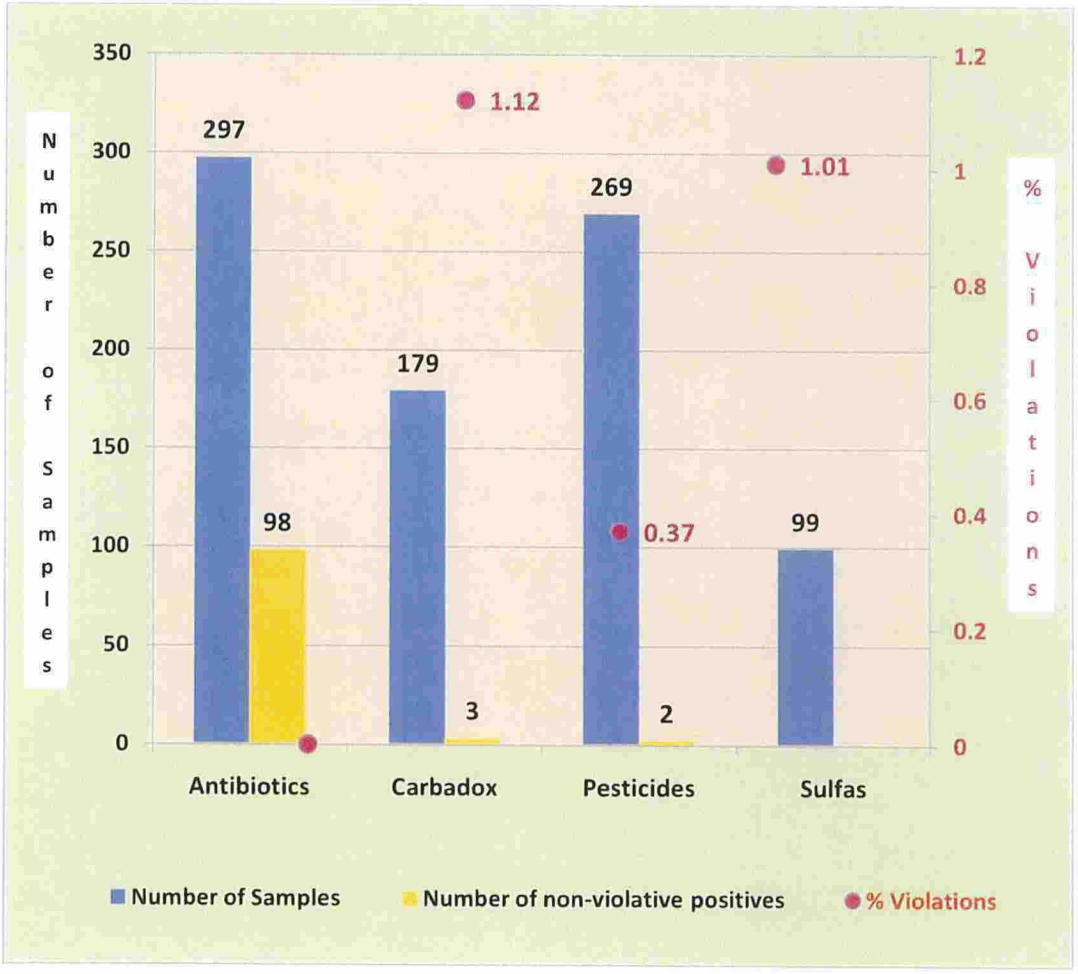
Compound Class	Unit	Tissue	Total Number of Samples	Violations	Residue Levels Found in Samples								
					None	0.01-0.10	0.11-0.20	0.21-0.30	0.31-0.50	0.51-1.00	1.01-2.51	2.51-5.00	> 5.00	Not-Quanti Non-Vio[1]
Antibiotics	ppm	Kidney	297	0	211	-	2	3	1	1	-	1	-	78
Carbadox	ppb	Liver	179	2	174	-	-	-	-	-	-	-	5	-
Pesticides	ppm	Fat	269	1	266	2	-	-	-	-	1	-	-	-
Sulfas	ppm	Liver	99	1	98	-	-	-	-	-	1	-	-	-

[1] The residue levels were not determined because any amount of the identified residue does not constitute a violation.

Table 40c. Roaster Pigs Violations Report
2009 Domestic Scheduled Sampling Results

Production Class	Compound Class	Residue	Tissue	Result	Unit
Roaster Pigs	Carbadox	Carbadox	Liver	53	ppb
Roaster Pigs	Carbadox	Carbadox	Liver	55	ppb
Roaster Pigs	Pesticides	PBDE	Fat	1.43	ppm
Roaster Pigs	Sulfas	Sulfamethazine	Liver	2.39	ppm

Figure 43. Roaster Pigs Summary
2009 Domestic Scheduled Sampling Results



Sows

FSIS laboratories analyzed 466 samples from sows and detected zero residue violations.

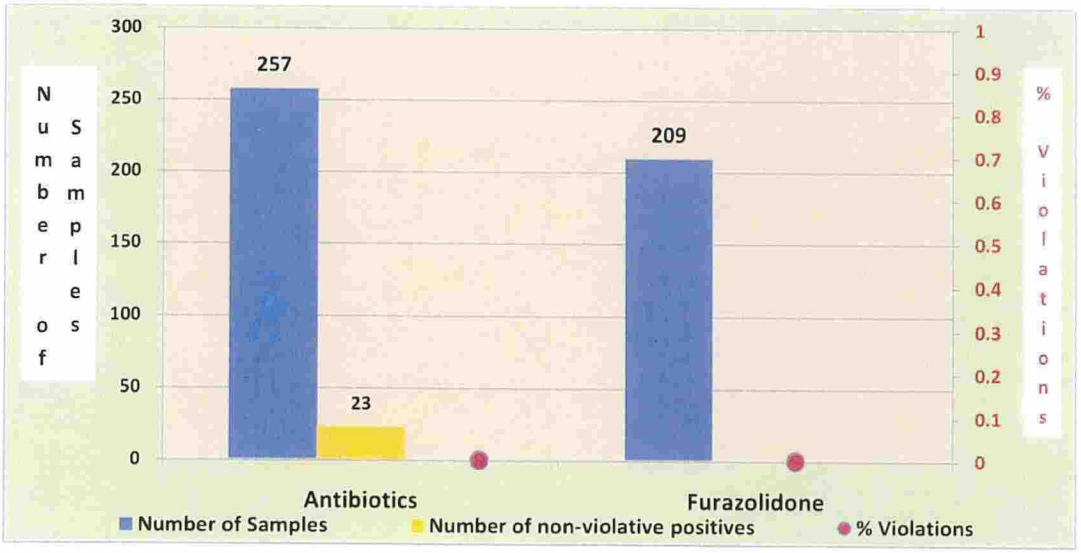
Table 41a. Sows Summary
2009 Domestic Scheduled Sampling Results

Compound Class	Tissue	Number of Samples	Number of Non-violative Positives	Number of Violations	Percent Violations
Antibiotics	Kidney	257	23	0	0.00
Furazolidone	Liver	209	0	0	0.00
Total		**466**	**23**	**0**	**0.00**

Table 41b. Sows Residue Levels
2009 Domestic Scheduled Sampling Results

Compound Class	Unit	Tissue	Number of Samples	Violations	Residue Levels Found in Samples		
					None	0.51-1.00	Non-Quanti Non-Vio[1]
Antibiotics	ppm	Kidney	257	0	237	1	19
Furazolidone	ppb	Liver	209	0	209	-	-

Figure 44. Sows Summary
2009 Domestic Scheduled Sampling Results



[1] The residue levels were not determined because any amount of the identified residue does not constitute a violation.

Steers

FSIS laboratories analyzed 1,387 Steers samples and detected two residue violations for gentamicin sulfate.

Table 42a. Steers Summary
2009 Domestic Scheduled Sampling Results

Compound Class	Tissue	Number of Samples	Number of Non-violative Positives	Number of Violations	Percent Violations
Antibiotics	Kidney	293	0	2	0.68
Avermectins	Liver	221	0	0	0.00
beta-Agonists	Liver	170	2	0	0.00
Chloramphenicol	Muscle	264	0	0	0.00
Pesticides	Fat	269	5	0	0.00
Sulfas	Liver	170	0	0	0.00
Total		**1,387**	**7**	**2**	**0.14**

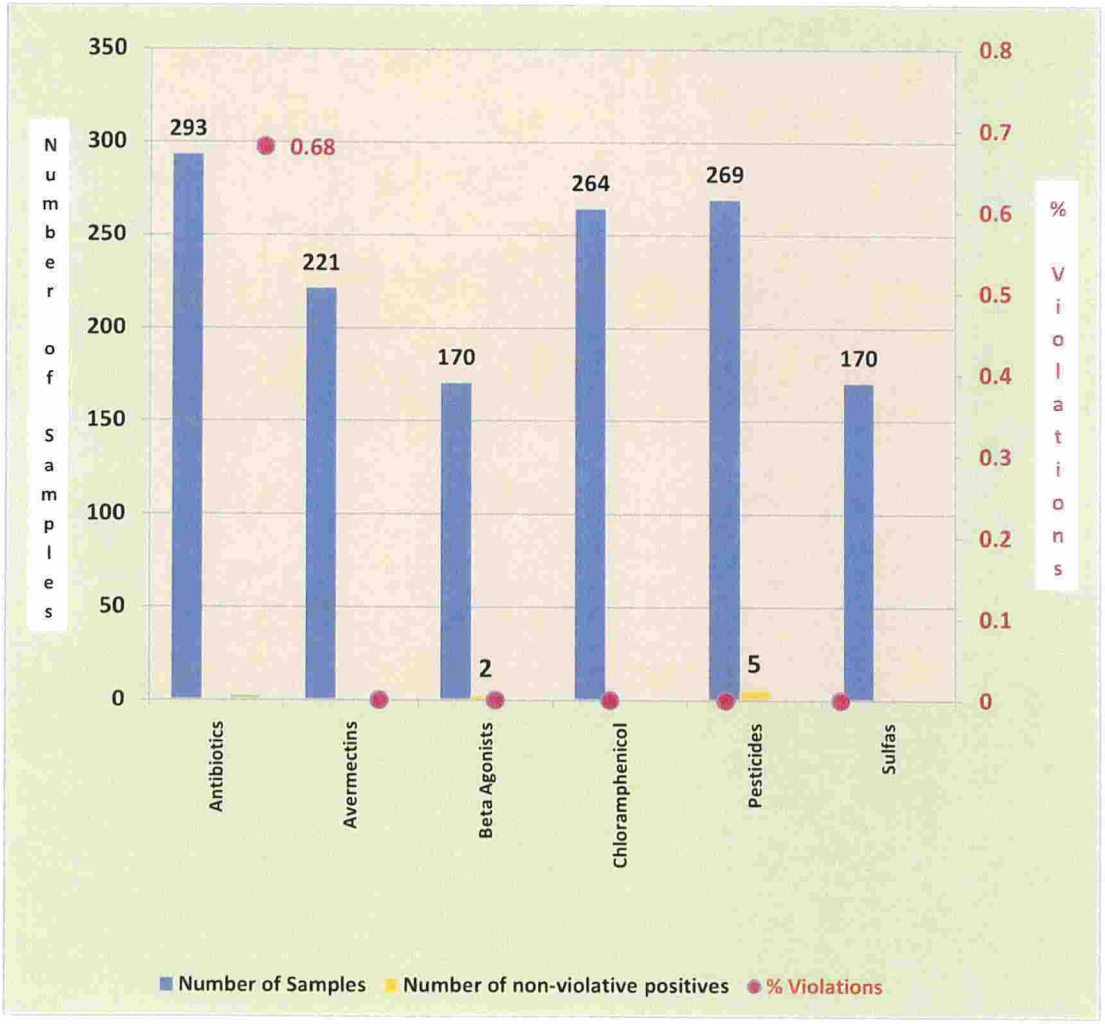
Table 42b. Steers Residue Levels
2009 Domestic Scheduled Sampling Results

Compound Class	Unit	Tissue	Number of Samples	Violations	Residue Levels Found in Samples						
					None	0.11-0.20	0.21-0.30	0.51-1.00	> 5.00	Not-Quanti Non-Vio	Not-Quanti Vio
Antibiotics	ppm	Kidney	293	2	289	-	-	-	-	2	2
Avermectins	ppb	Liver	221	0	221	-	-	-	-	-	-
beta-Agonists	ppb	Liver	170	0	169	-	-	-	1	-	-
Chloramphenicol	ppb	Muscle	264	0	264	-	-	-	-	-	-
Pesticides	ppm	Fat	269	0	264	3	1	1	-	-	-
Sulfas	ppm	Liver	170	0	170	-	-	-	-	-	-

Table 42c. Steers Violation Report
2009 Domestic Scheduled Sampling Results

Production Class	Compound Code	Test Code	Tissue Code	Result	Unit
Steers	Antibiotics	Gentamicin Sulfate	Kidney	8888	ppm
Steers	Antibiotics	Gentamicin Sulfate	Kidney	8888	ppm

Figure 45. Steers Summary
2009 Domestic Scheduled Sampling Results



Young Chickens

FSIS laboratories analyzed 1,520 samples from young chickens and detected zero residue violations.

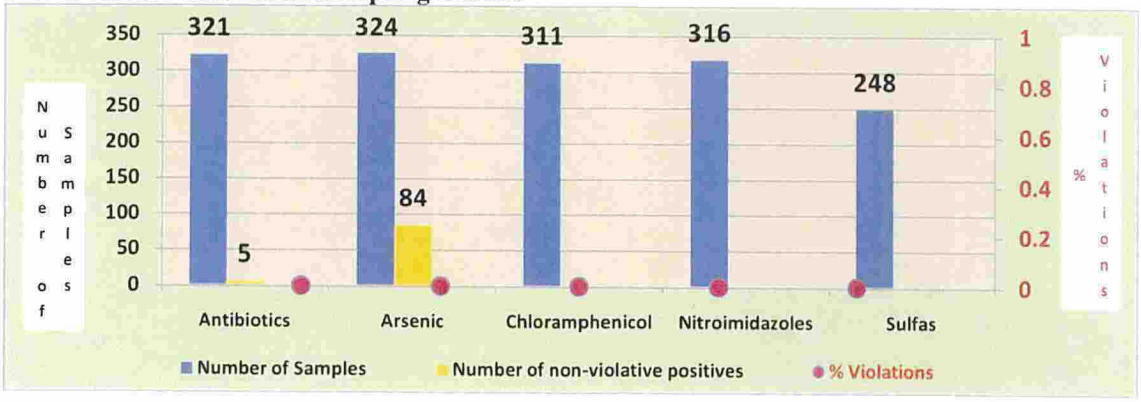
Table 43a. Young Chickens Summary
2009 Domestic Scheduled Sampling Results

Compound Class	Tissue	Number of Samples	Number of Non-violative Positives	Number of Violations	Percent Violations
Antibiotics	Kidney	321	5	0	0.00
Arsenic	Liver	324	84	0	0.00
Chloramphenicol	Muscle	311	0	0	0.00
Nitroimidazoles	Muscle	316	0	0	0.00
Sulfas	Liver	248	0	0	0.00
Total		**1,520**	**89**	**0**	**0.00**

Table 43b. Young Chickens Residue Levels
2009 Domestic Scheduled Sampling Results

Compound Class	Unit	Tissue	Number of Samples	Violations	Residue Levels Found in Samples						
					None	0.11-0.20	0.21-0.30	0.31-0.50	0.51-1.00	1.01-2.51	Not-Quanti Non-Vio
Antibiotics	ppm	Kidney	321	0	316	-	-	1	-	-	4
Arsenic	ppm	Liver	324	0	240	1	32	35	14	2	-
Chloramphenicol	ppb	Muscle	311	0	311	-	-	-	-	-	-
Nitroimidazoles	ppm	Muscle	316	0	316	-	-	-	-	-	-
Sulfas	ppm	Liver	248	0	248	-	-	-	-	-	-

Figure 46. Young Chickens Summary
2009 Domestic Scheduled Sampling Results



Young Turkeys

FSIS laboratories analyzed 827 young turkey samples and detected zero residue violations in antibiotics, nitroimidazoles, and sulfas.

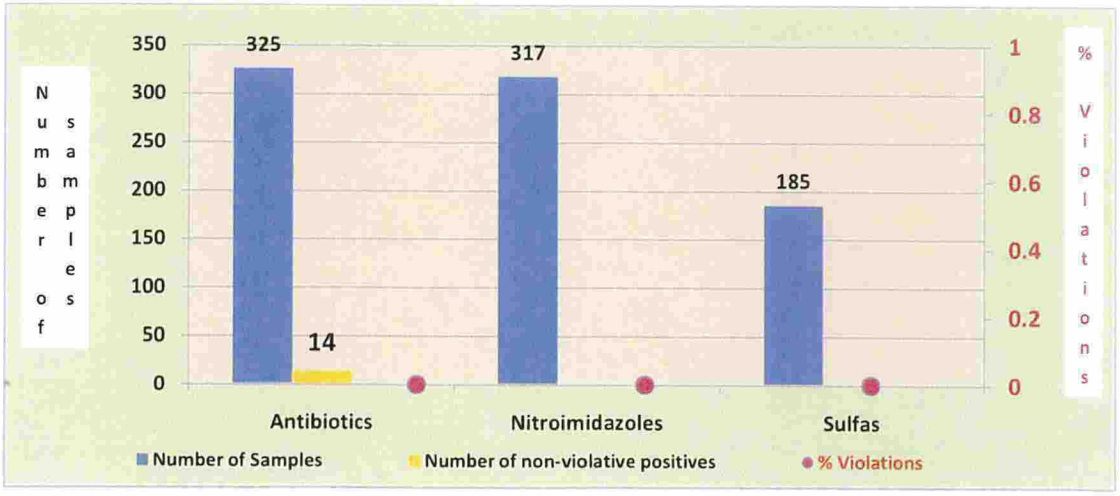
Table 44a. Young Turkeys Summary
2009 Domestic Scheduled Sampling Results

Compound Class	Unit	Tissue	Number of Samples	Number of Non-violative Positives	Number of Violations	Percent Violations
Antibiotics	ppm	Kidney	325	14	0	0.00
Nitroimidazoles	ppm	Muscle	317	0	0	0.00
Sulfas	ppm	Liver	185	0	0	0.00
Total			**827**	**14**	**0**	**0.00**

Table 44b. Young Turkeys Residue Levels
2009 Domestic Scheduled Sampling Results

Compound Class	Unit	Tissue	Number of Samples	Violations	Residue Levels Found in Samples				
					None	0.21-0.30	0.51-1.00	1.01-2.51	Not-Quanti Non-Vio
Antibiotics	ppm	Kidney	325	0	311	1	1	2	10
Nitroimidazoles	ppm	Muscle	317	0	317	-	-	-	-
Sulfas	ppm	Liver	185	0	185	-	-	-	-

Figure 47. Young Turkeys Summary
2009 Domestic Scheduled Sampling Results



Scheduled Sampling – Exploratory Assessments

Environmental Contaminants (Cadmium and Lead)

FSIS conducted an exploratory survey of the prevalence of environmental contaminants, specifically cadmium and lead, in dairy cows. Muscle and kidney samples with cadmium levels below the Minimum Proficiency Level [1] (i.e., 10 ppb for cadmium and 25 ppb for lead) are labeled non-detect (ND) in Tables 45 and 46. Table 45 presents the number of positives and ND samples by metal and tissue analyzed.

Table 45. Number of Positive and Non-detect Dairy Cows Samples Analyzed for Cadmium and Lead, 2009 Exploratory Assessments Results

Environmental Contaminants		Samples		
		Non-detect	Positive[2]	Total
Metal				
Cadmium	Kidney	0	276	276
	Muscle	275	1	276
	Total for Cadmium	275	277	552
Lead	Kidney	130	146	276
	Muscle	273	3	276
	Total for Lead	403	149	552

[1]Minimum Proficiency Level: The minimum concentration of a residue at which an analytical result will be used to assess a laboratory's quantification capability

[2] Positive samples have detectable Minimum Proficiency Levels above 10 ppb for cadmium and 25 ppb for lead.

Table 46 presents the statistical analysis of the cadmium and lead levels detected in dairy cow muscle and kidney samples. Table values in red font were calculated using the positive and non-detect samples. With these calculations, a default level of zero was used for non-detects. All other values presented in the table (black font) are applicable to positive samples only.

Table 46. Statistical Analysis of the Cadmium and Lead Levels in Kidneys and Muscles from Dairy Cows, 2009 Exploratory Assessments Results

Metal	Tissue	Number of Samples	Number of Positive Samples	Percent of Positive Samples	Levels Range (ppb)	Median Levels (ppb)	Mean Levels (ppb)	Standard Deviation	95th percen tile
Cadmium	Kidney	276	276	100%	68.49 - 5,956	299.80	435.20	572.5	1,155
Cadmium	Muscle	276	1	0.36%	12.61-12.61	12.61	12.61	N/A	12.61
Lead	Kidney	276	146	52.9%	25.01 - 1,212 0.00 -1,212	39.93 26.70	61.01 32.27	105.0 82.12	137.10 97.84
Lead	Muscle	276	3	1.09%	31.67 - 69.99 0.00 - 69.99	50.23 0.00	50.63 0.55	19.16 5.51	69.99 0.00

INSPECTOR-GENERATED SAMPLING

Suspect Animals

Public Health Veterinarians (PHVs) conduct Inspector-generated sampling of suspect animals when an animal is suspected to maintain violative levels of chemical residues. Sample screening utilizes the Fast Antimicrobial Screen Test (FAST) or the Kidney Inhibition Swab Test (KIS™). If FAST or KIS™ kits are not available, the PHV submits the sample to the FSIS laboratory for testing. FSIS incorporated the KIS™ kit in July 2009. KIS™ will eventually be the primary in-plant screening test for the agency.

Inspector-Generated sampling results are presented in two tables and a figure:

- Table 47 summarizes the total number of samples analyzed (or screened) and the number of animals with violations for each production class.
- Table 48 identifies the results for specific compounds that were detected (violative) within the production class across Inspector-enerated projects (i.e., FAST, KIS™, COLLGEN, and STATE).
- Figure 48 consists of a series of pie charts that examine the distribution of residue violations by identified project and chemical residues.

1. Samples Screened In-plant and Confirmed in a FSIS Laboratory

Fast Antimicrobial Screen Test (FAST)

FSIS used FAST kits to screen 81,855 samples for antibiotic and sulfonamide residues. Samples that tested positive were analyzed for flunixin, a non-steroidal anti-inflammatory compound. FSIS laboratories confirmed 951 violations in 688 animals. The residue violations included 16 ampicillin, one chlortetracycline, 108 desfuroylceftiofur (DCA or DCCD), one dihydro streptomycin, 159 flunixin, 70 gentamycin sulfate, 84 neomycin, 38 oxytetracycline, 286 penicillin, one phenylbutazone, 4 sulfadiazine, 97 sulfadimethoxine, 49 sulfamethazine, 11 sulfamethoxazole, 10 tetracycline, and 16 tilmicosin. FAST violation results are represented in Figure 49 and Table 49.

Kidney Inhibition Swab (KIS™) Test

FSIS used KIS™ kits to screen 69,219 samples for antibiotic and sulfonamide residues. Samples that tested positive were analyzed for flunixin, a non-steroidal anti-inflammatory compound. FSIS laboratories confirmed 535 violations in 401 animals. The residue violations included two ampicillin, 33 desfuroylceftiofur (DCA or DCCD), 78 flunixin, 46 gentamycin sulfate, 71 neomycin, 15 oxytetracycline, 90 penicillin, two phenylbutazone, two sulfadiazine, 80 sulfadimethoxine, 40 sulfamethazine, 14 sulfamethoxazole, One sulfathiazole, 17 tetracycline, 23 tilmicosin, and 21 tulathromycin. KIS™ violations results are represented in Figure 50 and Table 50.

2. Samples Confirmed in an FSIS Laboratory

COLLGEN

FSIS analyzed samples collected from 142 animals for antibiotic and sulfonamide residues. FSIS laboratories confirmed 20 violations in 15 animals. The residues included one chlortetracycline, three desfuroylceftiofur (DCA or DCCD), five flunixin, three gentamycin sulfate, two neomycin, three penicillin, and three sulfamethazine.

Samples collected from one heifer and one steer sample were analyzed for trenbolone. No violations were found. Similarly, one young turkey sample was tested for arsenic, lead, and cadmium. No violations were found. FSIS analyzed samples from five market hogs for *beta*-agonists. Furthermore, one bovine was tested for sulfas and one calf was tested for avermectin. No violations were found in these samples. COLLGEN violations results are represented in Figure 51 and Table 51.

.STATE (State or Government Agency Testing)

Analyses were conducted for antibiotic and sulfonamide residue in seven animals: one bob veal, four market hogs, and two steers. One neomycin residue violation was detected in bob veal.

Additional Inspector-generated sampling results are detailed in Tables 52 to 55.

Table 47. Summary Results, 2009 Inspector-Generated Sampling (by Project ID)
Antibiotics, Sulfonamide and Non-steroidal Anti-inflammatory (NSAID) Compound [1]

Production Class	COLLGEN [2]		FAST [1]		KIS™ [1]		STATE [2]	
	Number of Samples	Number of Animals With Confirmed Lab Violations	Number of In-plant (screened) Samples	Number of Animals With Confirmed Lab Violations	Number of In-plant (screened) Samples	Number of Animals With Confirmed lab Violations	Number of Samples	Number of Animals With Confirmed lab Violations
Beef Cows	19	1	7,437	36	3,155	16	0	0
Boars/Stags	1	0	206	0	5	0	0	0
Bob Veal	26	0	14,046	100	23,427	149	1	1
Bovine	0	0	0	0	0	0	0	0
Bulls	9	1	1,085	8	348	0	0	0
Dairy Cows	54	10	40,533	518	39,504	222	0	0
Formula-fed Veal	1	0	481	2	390	0	0	0
Goats	1	1	293	3	6	0	0	0
Heavy Calves	0	0	179	8	328	6	0	0
Heifers	4	0	1,144	5	687	6	0	0
Lambs	0	0	707	0	15	0	0	0
Market Hogs	11	0	9,132	0	42	0	4	0
Mature Sheep	0	0	224	0	0	0	0	0
Non-formula-fed Veal	0	0	120	2	112	0	0	0
Roaster Pigs	0	0	283	0	3	0	0	0
Sows	11	1	2,658	0	7	0	0	0
Steers	8	1	2,959	5	1,190	2	2	0
Other*	7	0	368	1	0	0	0	0
Total	152	**15**	81,855	**688**	69,219	**401**	7	**1**

[1] In the Inspector-generated Sampling plan, samples that produce a FAST and/or KIS™ positive in the plant are further analyzed for flunixin and phenylbutazone (non-steroidal anti-inflammatory compounds) in the laboratory.
[2] COLLGEN and STATES samples tested for antibiotics and sulfonamides.

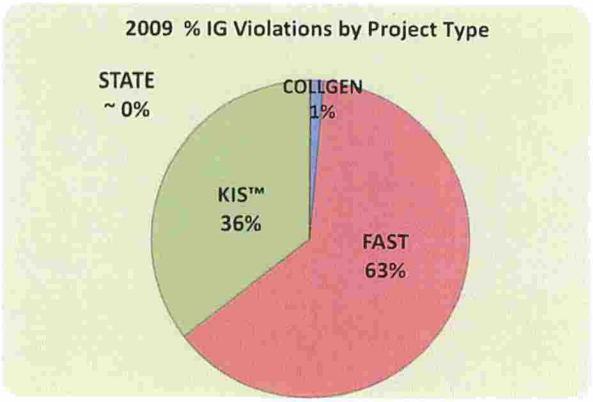
Table 48. Distribution of Residue Violations, Chemical Residue, and Animal Class by Project ID
2009 Inspector-Generated Sampling

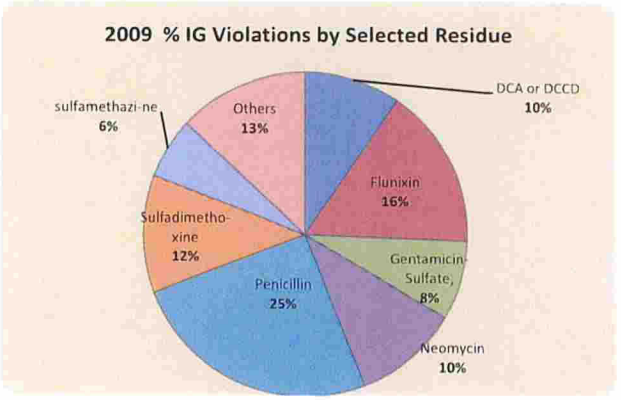
Antibiotics, Sulfonamide and Non-steroidal Anti-inflammatory (NSAID) Compound
*** One Carcass may have multiple violations ***

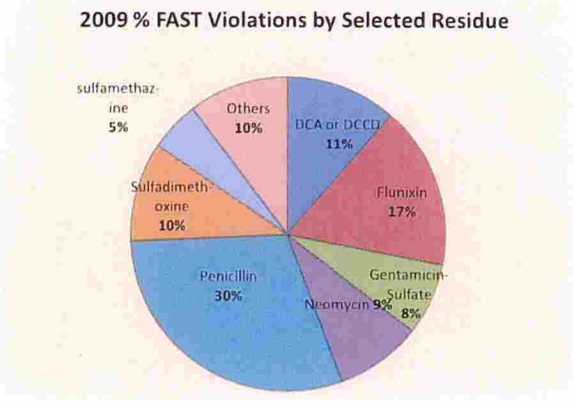
COLLGEN	Pencillin	Tetracycline	Neomycin	Oxytet racy-cline	Chlort etrac-ycline	Gentam ycin-Sulfate	Tilmicosin	Tulathro m-ycin	Dihydro Strepto my-cin	Ampicillin	DCA or DCCD	Sulfadi meth-oxine	Sulfam etha-zine	Sulfat hiaz-ole	Sulfa diaz-ine	Sulfa metho xazol-e	Phenylb utazo-ne	Flunixin	Total By Project ID
Beef Cows						3													3
Bulls	1																		1
Dairy Cows	2		1								2		3					5	13
Goats					1														1
Steers											1								1
Sow			1																1
	3	0	2	0	1	3	0	0	0	0	3	0	3	0	0	0	0	5	20
FAST	Pencillin	Tetracycline	Neomycin	Oxytet racy-cline	Chlort etrac-ycline	Gentam ycin-Sulfate	Tilmicosin	Tulathro m-ycin	Dihydro Strepto my-cin	Ampicillin	DCA or DCCD	Sulfadi meth-oxine	Sulfam etha-zine	Sulfat hiaz-ole	Sulfa diaz-ine	Sulfa metho xazol-e	Phenylb utazo-ne	Flunixin	Total By Project ID
Beef Cows	15		2	7		10	3				1	2	8					6	54
Bulls	8			3									1						12
Bob Veal	7		63	8		4				1	7	12	7		4	11		16	140
Dairy Cows	251	10	18	11		54	12		1	15	95	80	29				1	128	705
Formula Fed Veal											1							1	2
Goats				4	1														5
Heavy Calves	2			4		1	1					1						6	15
Heifers	1					1					2	2	2						8
Non-formula Fed Veal											1							1	2
Steers	2		1	1							1							1	6
Other													2						2
	286	10	84	38	1	70	16	0	1	16	108	97	49	0	4	11	1	159	951
KIS	Pencillin	Tetracycline	Neomycin	Oxytet racy-cline	Chlort etrac-ycline	Gentam ycin-Sulfate	Tilmicosin	Tulathro m-ycin	Dihydro Strepto my-cin	Ampicillin	DCA or DCCD	Sulfadi meth-oxine	Sulfam etha-zine	Sulfat hiaz-ole	Sulfa diaz-ine	Sulfa metho xazol-e	Phenylb utazo-ne	Flunixin	Total By Project ID
Beef Cows			1	3		2	4					5	5					3	23
Bob Veal	4	16	69	9		28	11	18			3	6	12	1	2	14	1	13	207
Dairy Cows	83	1	1	3		13	8	3		2	29	66	18				1	61	289
Heavy Calves						3							3						6
Heifers	2										1	2	2						7
Steers	1											1						1	3
	90	17	71	15	0	46	23	21	0	2	33	80	40	1	2	14	2	78	535
STATE	Pencillin	Tetracycline	Neomycin	Oxytet racy-cline	Chlort etrac-ycline	Gentam ycin-Sulfate	Tilmicosin	Tulathro m-ycin	Dihydro Strepto my-cin	Ampicillin	DCA or DCCD	Sulfadi meth-oxine	Sulfam etha-zine	Sulfat hiaz-ole	Sulfa diaz-ine	Sulfa metho xazol-e	Phenylb utazo-ne	Flunixin	Total By Project ID
Bob Veal			1																1
Total by Residue	379	27	158	53	2	119	39	21	1	18	144	177	92	1	6	25	3	242	1507

TOTAL Violations: 1507

Figure 48. Distribution of Residue Violations by Project ID and Selected Chemical Residue
2009 Inspector-Generated (IG) Sampling Results







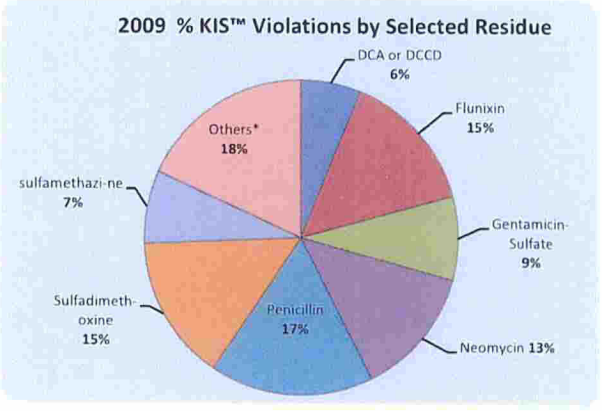
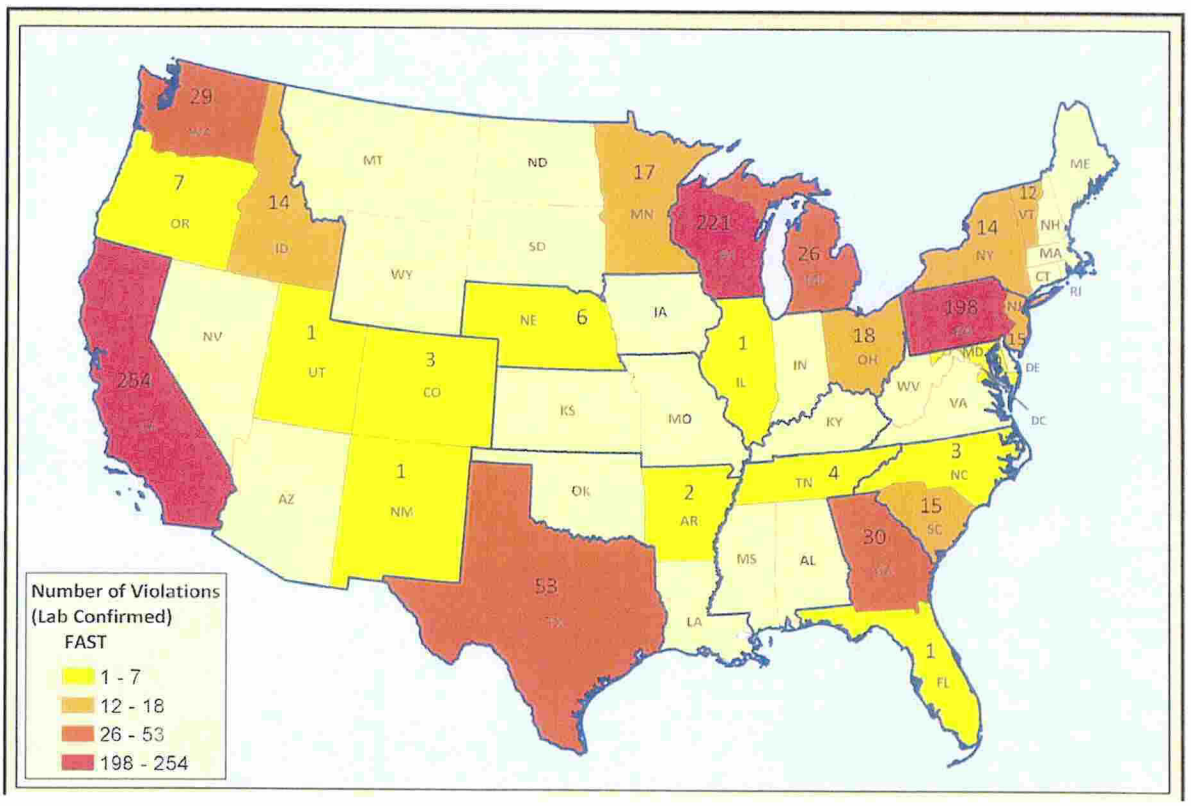


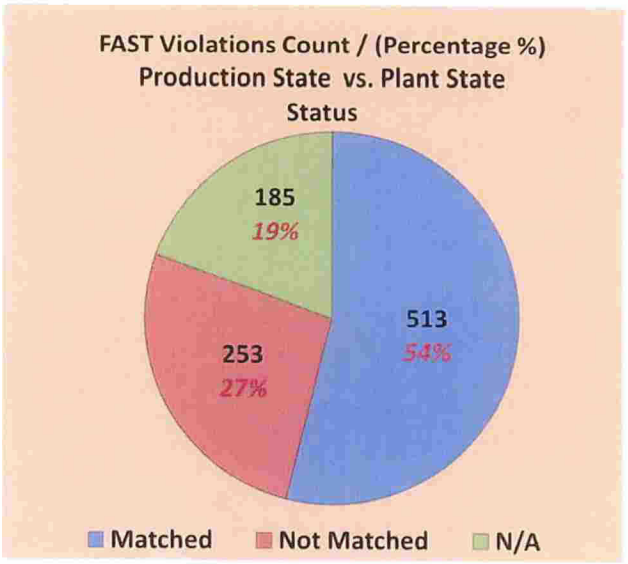
Figure 49. Location of FAST Violations by U.S States
2009 Inspector-Generated Sampling Results



Data Source: FSIS Data Warehouse

Table 49. FAST Violations by Plant State vs. Production State Matching Status
2009 Inspector-Generated Sampling Results

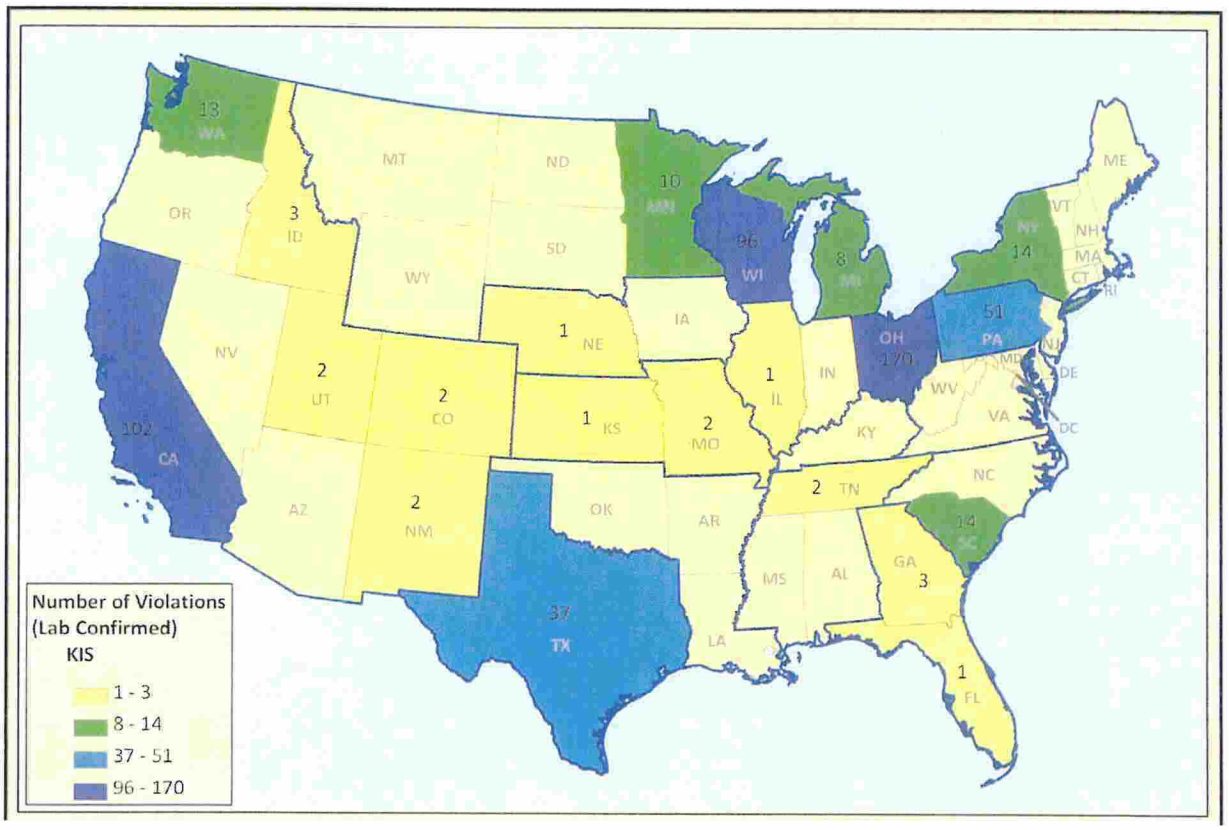
FAST Violations by Selected U.S. States	Violations Count / Percentage (Plant State vs. Production State) Status			
	Matched	Not-Matched	N/A	Total
California	238 (94 %)	13 (5%)	3 (1 %)	254
Georgia	2 (7%)	28 (93%)	0 (0 %)	30
Idaho	14 (100%)	0 (0 %)	0 (0 %)	14
Missouri	12 (46%)	14 (54%)	0 (0 %)	26
Minnesota	13 (76%)	4 (24%)	0 (0 %)	17
New Jersey	0 (0 %)	15 (100%)	0 (0 %)	15
New York	10 (71%)	4 (29%)	0 (0 %)	14
Ohio	10 (56%)	8 (44%)	0 (0 %)	18
Pennsylvania	12 (6%)	5 (3%)	181 (91%)	198
South Carolina	1 (7%)	14 (93%)	0 (0 %)	14
Texas	31 (59%)	22 (41%)	0 (0 %)	53
Washington	26 (90%)	2 (3 %)	1 (7%)	29
Wisconsin	112 (51%)	109 (49 %)	0 (0 %)	221
Other States	32 (68%)	15 (32%)	0 (0 %)	47
TOTAL	513	253	185	951



Overall, 54% of FAST violations showed matching status between production ptate (i.e., the last location of the animal prior to slaughter) and the plant state. California, Wisconsin, and Pennsylvania are the top three states that reported FAST violations. A correlation is likely between the state violations and slaughter volume per animal class. The plant state and the production state were matched for most of the FAST-violations states except in Georgia, New Jersey, and South Carolina. Almost all of Pennsylvania violations lack state information.

N/A: means last location of animal before prior to slaughter information is not available.

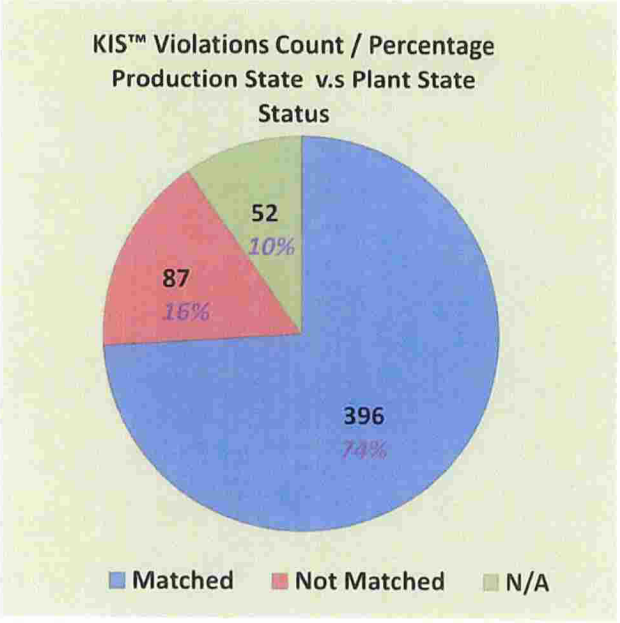
Figure 50. Location of KIS™ Violations by U.S States
2009 Inspector-Generated Sampling Results



Data Source: FSIS Data Warehouse

Table 50. KIS™ Violations by Plant State vs. Produce State Matching Status
2009 Inspector-Generated Sampling Results

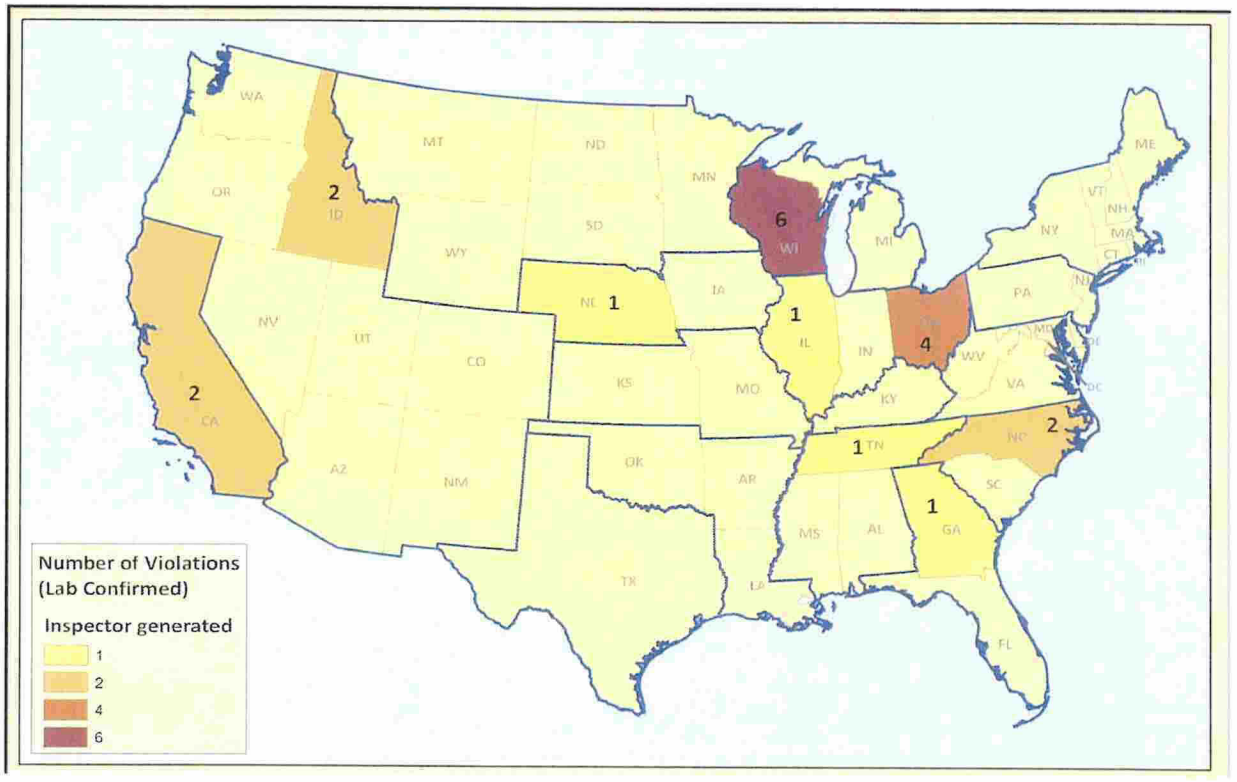
KIS™ Violations by Selected U.S. States	Violations Count / Percentage (Plant State vs. Production State) Status			
	Matched	Not-Matched	N/A	Total
California	**98** (96%)	**4** (4%)	**0** (0%)	102
New York	**11** (79%)	**0** (0%)	**3** (21%)	14
Ohio	**165** (96 %)	**5** (4%)	**0** (0%)	170
Pennsylvania	**1** (2%)	**1** (2%)	**49** (96%)	51
South Carolina	**2** (14%)	**12** (86%)	**0** (0%)	14
Texas	**33** (89%)	**4** (11%)	**0** (0%)	37
Washington	**7** (54%)	**6** (46%)	**0** (0%)	13
Wisconsin	**48** (50%)	**48** (50%)	**0** (0%)	96
Other States*	**31** (82%)	**7** (18%)	**0** (0%)	38
TOTAL	396	87	52	535



About 74% of KIS™ violations showed matching status between the production state (i.e., the last location of the animal before slaughter) and the plant state. Ohio, California, and Wisconsin are the top three states per KIS™ violations. A correlation is likely between the state violations and slaughter volume per animal class. The plant state and the production state were matched for many KIS™ violations states, except in South Carolina.

N/A means last location of animal before prior to slaughter information is not available

Figure 51. Location of COLLGEN Violations by U.S States
2009 Inspector-Generated Sampling Results



Data Source: FSIS Data Warehouse

Table 51. COLLGEN Violations by Plant State vs. Production State Matching Status
2009 Inspector-Generated Sampling Results

COLLGEN Violations by U.S. States	Violations Count / Percentage % (Plant State vs. Production State) Status			
	Matched	Not-Matched	N/A	Total
California	2 (100%)	0 (0%)	0 (0%)	2
Georgia	0 (0%)	1 (100%)	0 (0%)	1
Idaho	2 (100 %)	0 (0%)	0 (0%)	2
Illinois	0 (0%)	1 (100%)	0 (0%)	1
Nebraska	1 (100%)	0 (0%)	0 (0%)	1
North Carolina	0 (0%)	2 (100%)	0 (0%)	2
Ohio	1 (25%)	3 (75%)	0 (0%)	4
Tennessee	0 (0%)	1 (100%)	0 (0%)	1
Wisconsin	6 (100%)	0 (0%)	0 (0%)	6
TOTAL	12	8	0	20

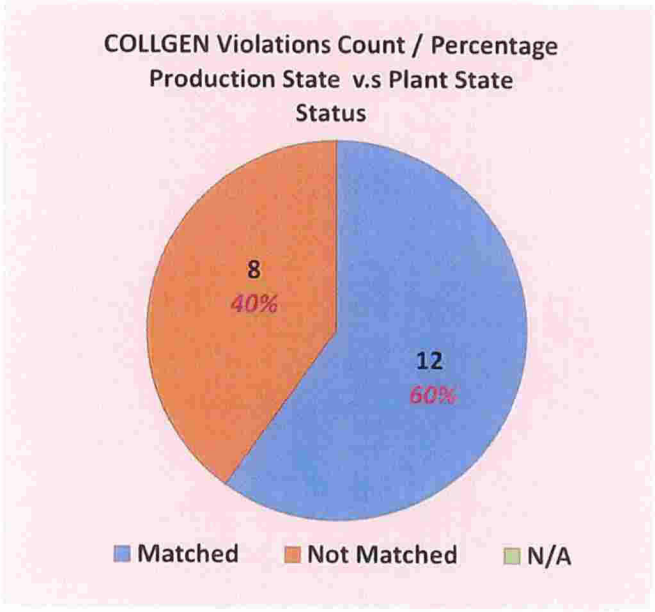


Table 52. Distribution of Residue Violations, Chemical Residue, and Status (Production vs. Plant) U.S. States by Project ID 2009 Inspector-Generated (IG) Sampling

Antibiotics, Sulfonamide and Non-steroidal Anti-inflammatory (NSAID) Compound
* Plant State vs. Produce State match status *

COLLGEN	Penicillin	Tetracycline	Neomycin	Oxytetra cycline	Chlortetrac ycline	Gentamycin Sulfate	Tilmicosin	Tulathromycin	Dihydro Streptomycin	Ampicillin	DCA or DCCD	Sulfadimethox ine	Sulfamethaz ine	Sulfathia zole	Sulfadiaz ine	Sulfamethoxaz ole	Phenylbu tazone	Flunixin	Total By Project ID
Matched	2		1		0	0					1		3					5	12
Not Matched	1		1		1	3					2		0					0	8
N/A																			0
	3	0	2	0	1	3	0	0	0	0	3	0	3	0	0	0	0	5	20
FAST	Penicillin	Tetracycline	Neomycin	Oxytetra cycline	Chlortetrac ycline	Gentamycin Sulfate	Tilmicosin	Tulathromycin	Dihydro Streptomycin	Ampicillin	DCA or DCCD	Sulfadimethox ine	Sulfamethaz ine	Sulfathia zole	Sulfadiaz ine	Sulfamethoxaz ole	Phenylbu tazone	Flunixin	Total By Project ID
Matched	138	6	48	23	0	27	7		1	12	61	66	22		4	11	1	86	513
Not Matched	71	2	9	15	1	29	9		0	2	28	21	21		0	0	0	45	253
N/A	77	2	27	0	0	14	0		0	2	19	10	6		0	0	0	28	185
	286	10	84	38	1	70	16	0	1	16	108	97	49	0	4	11	1	159	951
KIS	Penicillin	Tetracycline	Neomycin	Oxytetra cycline	Chlortetrac ycline	Gentamycin Sulfate	Tilmicosin	Tulathromycin	Dihydro Streptomycin	Ampicillin	DCA or DCCD	Sulfadimethox ine	Sulfamethaz ine	Sulfathia zole	Sulfadiaz ine	Sulfamethoxaz ole	Phenylbu tazone	Flunixin	Total By Project ID
Matched	48	17	66	11		35	17	18		2	21	63	33	1	0	11	1	52	396
Not Matched	23	0	3	4		6	5	3		0	7	10	5	0	2	2	0	17	87
N/A	19	0	2	0		5	1	0		0	5	7	2	0	0	1	1	9	52
	90	17	71	15	0	46	23	21	0	2	33	80	40	1	2	14	2	78	535
STATE	Penicillin	Tetracycline	Neomycin	Oxytetra cycline	Chlortetrac ycline	Gentamycin Sulfate	Tilmicosin	Tulathromycin	Dihydro Streptomycin	Ampicillin	DCA or DCCD	Sulfadimethox ine	Sulfamethaz ine	Sulfathia zole	Sulfadiaz ine	Sulfamethoxaz ole	Phenylbu tazone	Flunixin	Total By Project ID
Matched			1																1
Not Matched																			0
N/A																			0
Total by Residue	379	27	158	53	2	119	39	21	1	18	144	177	92	1	6	25	3	242	

TOTAL Violations: 1507

Table 53. Distribution of Residue Violations, Chemical Residue, and selected U.S. States by Project ID
2009 Inspector-Generated Sampling

Antibiotics, Sulfonamide and Non-steroidal Anti-inflammatory (NSAID) Compound
* Selected U.S. Plant States *

COLLGEN	Chlortetracycline	Desfuroylceftiofur (DCA or DCCD)	Flunixin	Gentamycin Sulfate	Neomycin	Penicillin	Sulfamethazine	Total By U.S STATE
CA	0	0	0	0	0	0	2	2
GA	0	0	0	0	0	1	0	1
ID	0	0	1	0	0	1	0	2
IL	1	0	0	0	0	0	0	1
NC	0	2	0	0	0	0	0	2
NE	0	1	0	0	0	0	0	1
OH	0	0	1	3	0	0	0	4
TN	0	0	0	0	1	0	0	1
WI	0	0	3	0	1	1	1	6
Total by Residue	1	3	5	3	2	3	3	20

FAST	Ampicillin	Chlortetracycline	Desfuroylceftiofur (DCA or DCCD)	Dihydro Streptomycin	Flunixin	Gentamycin Sulfate	Neomycin	Oxytetracycline	Penicillin	Phenylbutazone	Sulfadiazine	Sulfadimethoxine	Sulfamethazine	Sulfamethoxazole	Tetracycline	Tilmicosin	Total By U.S STATE
CA	2	0	34	0	40	8	31	5	69	0	4	38	12	7	3	1	254
GA	0	0	1	0	3	7	1	5	6	0	0	0	6	0	0	1	30
ID	0	0	2	0	1	1	1	0	6	0	0	2	0	0	0	1	14
MI	1	0	3	0	7	3	3	1	2	0	0	3	1	2	0	0	26
MN	1	0	1	0	2	1	0	0	9	0	0	3	0	0	0	0	17
NJ	0	0	3	0	5	0	0	2	3	0	0	2	0	0	0	0	15
NY	0	0	0	0	3	0	1	5	4	0	0	1	0	0	0	0	14
OH	0	0	0	0	2	2	2	3	6	0	0	1	2	0	0	0	18
PA	2	0	20	0	30	14	28	3	81	0	0	12	6	0	2	0	198
SC	0	0	0	0	2	2	0	3	4	0	0	2	2	0	0	0	15
TX	0	0	4	0	7	2	4	3	19	0	0	7	3	2	0	2	53
WA	0	0	2	0	2	1	2	1	16	0	0	0	0	0	3	2	29
WI	10	0	33	1	53	25	3	2	45	1	0	22	15	0	2	9	221
* Other U.S. States	0	1	5	0	2	4	8	5	16	0	0	4	2	0	0	0	47
Total by Residue	16	1	108	1	159	70	84	38	286	1	4	97	49	11	10	16	951

KIS	Ampicillin	Desfuroylceftiofur (DCA or DCCD)	Flunixin	Gentamycin Sulfate	Neomycin	Oxytetracycline	Penicillin	Phenylbutazone	Sulfadiazine	Sulfadimethoxine	Sulfamethazine	Sulfamethoxazole	Sulfathiazole	Tetracycline	Tilmicosin	Tulathromycin	Total By U.S STATE
CA	1	10	13	3	1	2	32	0	2	30	7	0	0	0	1	0	102
NY	0	1	1	5	5	0	1	0	0	0	0	1	0	0	0	0	14
OH	0	1	11	21	61	9	3	1	0	4	5	11	1	16	11	15	170
PA	0	5	9	5	1	0	20	1	0	7	2	0	0	0	1	0	51
SC	0	0	0	2	0	3	3	0	0	1	3	0	0	0	2	0	14
TX	0	1	4	2	3	0	3	0	0	10	8	2	0	0	1	3	37
WA	0	4	3	0	0	0	3	0	0	3	0	0	0	0	0	0	13
WI	1	7	29	6	0	1	19	0	0	19	6	0	0	1	4	3	96
* Other U.S. States	0	4	8	2	0	0	6	0	0	6	9	0	0	0	3	0	38
Total by Residue	2	33	78	46	71	15	90	2	2	80	40	14	1	17	23	21	535

Table 54. Distribution of Residue Violations, Animal Class, and Selected U.S. States by Project ID
2009 Inspector-Generated Sampling

*** Selected U.S. Plant States ***
*** One Carcass may have multiple violations ***

COLLGEN	Beef Cows	Bulls	Dairy Cows	Goats	Sows	Steers	Total By U.S STATE
CA	0	0	2	0	0	0	**2**
GA	0	1	0	0	0	0	**1**
ID	0	0	2	0	0	0	**2**
IL	0	0	0	1	0	0	**1**
NC	0	0	2	0	0	0	**2**
NE	0	0	0	0	0	1	**1**
OH	3	0	1	0	0	0	**4**
TN	0	0	0	0	1	0	**1**
WI	0	0	6	0	0	0	**6**
Total by Animals	3	1	13	1	1	1	20

FAST	Beef Cows	Bob Veal	Bulls	Dairy Cows	Formula Fed Veal	Goats	Heavy Calves	Heifers	Non-formula Fed Veal	Steers	*Others	Total By U.S STATE
CA	0	56	1	188	0	0	4	3	0	2	0	**254**
GA	16	0	4	5	0	0	5	0	0	0	0	**30**
ID	3	0	0	10	0	0	0	0	0	1	0	**14**
MI	6	7	0	13	0	0	0	0	0	0	0	**26**
MN	0	0	0	17	0	0	0	0	0	0	0	**17**
NJ	3	0	0	12	0	0	0	0	0	0	0	**15**
NY	0	8	0	4	0	2	0	0	0	0	0	**14**
OH	3	7	0	8	0	0	0	0	0	0	0	**18**
PA	0	37	2	155	1	2	0	0	1	0	0	**198**
SC	0	0	1	14	0	0	0	0	0	0	0	**15**
TX	6	11	4	23	0	0	5	3	0	1	0	**53**
WA	0	2	0	26	0	0	0	1	0	0	0	**29**
WI	9	0	0	209	1	0	0	0	0	2	0	**221**
* Other U.S. States	8	12	0	21	0	1	1	1	1	0	2	**47**
Total by Animals	54	140	12	705	2	5	15	8	2	6	2	951

KIS	Beef Cows	Bob Veal	Dairy Cow	Heavy Calves	Heifers	Steers	Total By U.S STATE
CA	0	3	97	2	0	0	**102**
NY	0	14	0	0	0	0	**14**
OH	0	170	0	0	0	0	**170**
PA	0	0	51	0	0	0	**51**
SC	8	0	6	0	0	0	**14**
TX	7	20	7	0	3	0	**37**
WA	0	0	12	0	1	0	**13**
WI	4	0	89	0	1	2	**96**
* Other U.S. States	4	0	27	4	2	1	**38**
Total by Animals	23	207	289	6	7	3	535

Table 55. Selected Slaughter Classes Ranked by Volume (and Percentage) for selected U.S. States
(1=Ranked 1st. 2=Ranked 2nd. 3=Ranked 3rd, 4= Ranked 4th, 5= Ranked 5th) in volume
Top five U.S. States (*highlighted*)

Selected U.S (Plants) States	Beef cows	Boars /Stags	Bob veal	Bulls	Dairy cows	Formula-fed veal	Heavy calves	Heifers	Non-formula fed veal	Steers
	Rank / Pct%	*Rank / Pct%*	*Rank / Pct%*	*Rank / Pct%*	*Rank / Pct%*	*Rank / Pct%*	*Rank / Pct%*	*Rank / Pct%*	*Rank / Pct%*	*Rank / Pct%*
CA	13	14	1 44%	5 6%	2 22%	N/A	1 41%	9	8	5 5%
GA	5 4%	41	N/A	4 8%	12	N/A	6	26	N/A	27
ID	8	36	N/A	8	6	N/A	34	13	N/A	15
IL	34	5 3%	8	31	33	5 7%	8	5 4%	12	7
MI	9	12	19	22	7	6	N/A	16	19	9
MN	3 13%	21	22	3 11%	10	8	23	10	22	14
NC	11	8	10	7	9	12	4 3%	33	13	23
NE	2 18%	38	N/A	2 14%	17	N/A	38	2 25%	N/A	2 22%
NJ	24	10	10	17	19	3 16%	3 15%	31	3 8%	17
NY	27	18	2 29%	20	16	7	10	20	4 7%	19
OH	18	4 5%	3 10%	19	18	4 14%	41	19	14	21
PA	12	2 29%	15	10	3 13%	1 34%	15	11	5 5%	10
SC	7	20	N/A	9	45	N/A	27	44	N/A	43
TN	19	25	N/A	21	22	N/A	14	34	N/A	28
TX	1 25%	3 7%	4 7%	1 22%	4 8%	N/A	2 21%	3 21%	24	3 21%
WA	15	46	6	14	8	N/A	37	6	N/A	8
WI	4 5%	7	N/A	6	1 25%	2 22%	5 3%	12	1 41%	6
*Others States	35%	(a) 56%	(b) 10%	39%	(c) 32%	7%	17%	(d) 50%	(e) 39%	(f) 52%

(a) IA ranked - 1st -Boars/Stags- Volume in 2009 (50 %)
(b) VT ranked 5th -Bob Veal- Volume in 2009 (5 %)
(c) AZ ranked 5th -Dairy Cows- Volume in 2009 (8 %)

(d) KS ranked 1st -Heifers- Volume in 2009 (27 %)
(d) CO ranked 4th -Heifers- Volume in 2009 (10 %)

(e) MD ranked 2th -Non formula fed veal- Volume in 2009 (16 %)
(f) KS ranked 1st - Steers- Volume in 2009 (22 %)
(f) CO ranked 4th -Steers- Volume in 2009 (8%)

Table 56. Distribution of Non-Violative Positive Residue by Production Class and Chemical Residue
2009 Inspector-Generated Sampling (IG) Results

Production Class	Ampicillin	Cefazolin	Chlortetracycline	Desacetyl Cephapirin	Desfuroylceftiofur (DCA or DCCD)	DihydroStreptomycin	Flunixin	Gentamycin Sulfate	Lincomycin	Neomycin	Oxytetracycline	Penicillin	Pirlimycin	Spectinomycin	Streptomycin	Tetracycline	Tetracycline Recovered Not Violative	Tilmicosin	Tobramycin	Tulathromycin	Tylosin	UNK	Total
Beef cows	1		9	1	1	1	5			13	37	6					56	5		7			142
Boars /Stags			1			1				1													3
Bob veal			2	1		339				1,028	62	2	1	11	4	24	73	3	2	3		10	1,565
Bulls							1			1	11						16	1		6			36
Dairy cows	15	1	2	10	37	49	51		3	158	105	204	1	3	10	79	280	14	1	37	4	11	1,075
Formula-fed veal			4							3		1					16			1			25
Goats																						3	3
Heavy calves			1			1				10	3			1			5	1		3			25
Heifers			1		1					2	3	1					4	2		10			24
Lambs																	1					1	2
Market hogs			1					1		9						1	12					9	33
Mature sheep																						3	3
Non-formula fed veal			2							1													3
Roaster pigs																	1						1
Sows			1							1	2						2					24	30
Steers	1		12			1	2			11	4	3					14	1		16		2	67
Young turkeys																						3	3
Total by Residue	17	1	36	12	39	392	59	1	3	1,238	227	217	2	15	14	104	480	27	3	83	4	66	3,040

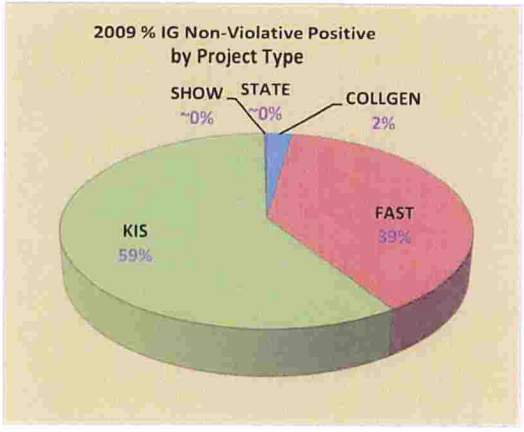
TOTAL Non-Violative Positive: 3,040

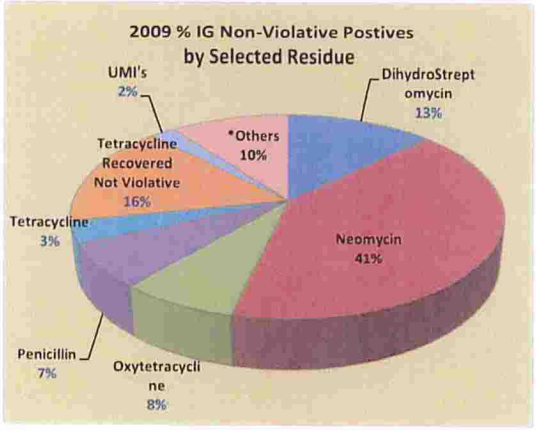
Table 57. Distribution of Non-Violative Positive Samples by Project ID
2009 Inspector-Generated (IG) Sampling

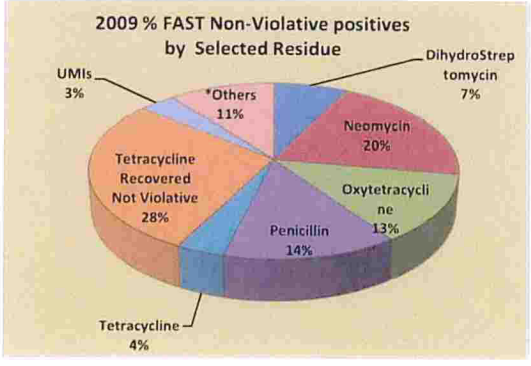
Compound Class	COLLGEN	FAST	KIS	SHOW	STATE	Total
Ampicillin	0	8	9	0	0	**17**
Cefazolin	0	1	0	0	0	**1**
Chlortetracycline	1	26	7	2	0	**36**
DesacetylCephaprin	0	8	4	0	0	**12**
Desfuroylceftiofur(DCAorDCCD)	1	29	9	0	0	**39**
DihydroStreptomycin	9	85	298	0	0	**392**
Flunixin	2	27	30	0	0	**59**
Gentamycin Sulfate	0	1	0	0	0	**1**
Lincomycin	0	1	2	0	0	**3**
Neomycin	30	237	968	1	2	**1238**
Oxytetracycline	3	148	76	0	0	**227**
Penicillin	2	160	55	0	0	**217**
Pirlimycin	0	1	1	0	0	**2**
Spectinomycin	1	1	13	0	0	**15**
Streptomycin	0	9	5	0	0	**14**
Tetracycline	0	44	60	0	0	**104**
Tetracycline Recovered Not Violative	7	330	140	2	1	**480**
Tilmicosin	2	2	23	0	0	**27**
Tobramycin	0	0	3	0	0	**3**
Tulathromycin	4	9	70	0	0	**83**
Tylosin	0	1	3	0	0	**4**
UMI's	7	42	16	1	0	**66**
Total by FSIS IG Project	**69**	**1170**	**1792**	**6**	**3**	**3040**

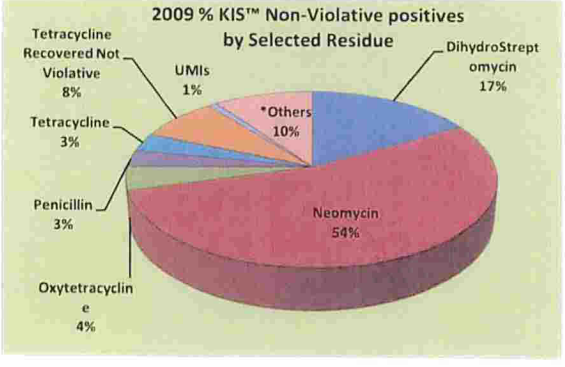
TOTAL Non-Violative Positive: **3,040**

Figure 52. Distribution of Non-Violative Positive Samples by Project ID and Selected Chemical Residue 2009 Inspector-Generated (IG) Sampling









* Others: Refer to the chemical compound list in Table 57 (page 97).

INSPECTOR-GENERATED SAMPLING (*Continue)*

Suspect Populations

FSIS tested suspect populations in bob veal for antibiotics, sulfonamides, and *beta*-Agonists.

Fast Antimicrobial Screen Test (FAST) on Bob Veal

FSIS field personnel used the FAST test to screen14,046 samples from bob veal calves for antibiotics and sulfonamides. Of the animals tested, FSIS laboratory confirmed 140 violations in 100 animals. The residue violations consisted of one ampicillin, seven desfuroylceftiofur (DCA or DCCD), 16 flunixin, four gentamycin sulfate, 63 neomycin, eight oxytetracycline, seven penicillin, four sulfadiazine, 12 sulfadimethoxine, seven sulfamethazine, and 11 sulfamethoxazole.

Kidney Inhibition Swab (KIS™) Test on Bob Veal

FSIS field personnel used KIS™ tests to screen 23,427 samples from bob veal calves for antibiotics and sulfonamides. Of the animals tested, FSIS laboratory confirmed 207 violations in 149 animals. The residue violations consisted of three desfuroylceftiofur (DCA or DCCD), 13 flunixin, 28 gentamycin sulfate, 69 neomycin, nine oxytetracycline, four penicillin, one phenylbutazone, two sulfadiazine, six sulfadimethoxine, 12 sulfamethazine, 14 sulfamethoxazole, one sulfathiazole, 16 tetracycline, 11 tilmicosin, and 18 tulathromycin.

Show Animals

FSIS laboratories conducted analyses for antibiotics and sulfonamides on one lamb, nine market hogs, one mature sheep, and six steers. No violations were found.

FSIS laboratories conducted analyses for clenbuterol, salbutamol, ractopamine, and cimaterol (*beta*-agonists) on three bovine, one bull, three heifers, five lamb, nine market hogs, one mature sheep, and 11 steers. No violations were found.

FSIS laboratories conducted analyses for one market hog and one steer for flunixin. No violations were found.

Import Reinspections Results

Normal Reinspection

Table 58 presents results for imported products subject to normal reinspection. The data include the number of analyses, non-detects, non-violative positives, and violations found for each compound class tested.

Table 58. Normal Reinspection Results
2009 Import Residue Plan

Country	Species	Type	Compound Class	Number of Analyses	Number of Non-Detects	Number of Non-Violative Positives	Number of Violations	Specific Compound (Violation)
Argentina	Beef	Processed	Avermectins	14	14	---	---	---
			Chlorinated Organophosphates	2	2	---	---	---
			Other Pesticides	3	3	---	---	---
			Sulfonamides	14	14	---	---	---
Australia	Beef	Fresh	Antibiotics - 7 plate	89	89	---	---	---
			Avermectins	97	97	---	---	---
			Chloramphenicol	5	5	---	---	---
			Chlorinated Organophosphates	6	6	---	---	---
			Florfenicol	6	6	---	---	---
			Flunixin	18	18	---	---	---
			Other Pesticides	87	87	---	---	---
			Sulfonamides	96	96	---	---	---
	Goat	Fresh	Avermectins	7	7	---	---	---
			Other Pesticides	8	8	---	---	---
	Lamb	Fresh	Avermectins	45	45	---	---	---
			Chlorinated Organophosphates	5	5	---	---	---
			Other Pesticides	46	46	---	---	---
	Mutton	Fresh	Avermectins	8	8	---	---	---
			Chlorinated Organophosphates	1	1	---	---	---
			Other Pesticides	10	10	---	---	---
	Pork	Fresh	Antibiotics - 7 plate	1	1	---	---	---
			Arsenic	1	1	---	---	---
			beta-Agonists	1	1	---	---	---
			Sulfonamides	1	1	---	---	---
	Veal	Fresh	Avermectins	16	16	---	---	---
			beta-Agonists	29	29	---	---	---
			Chloramphenicol	15	15	---	---	---
			Sulfonamides	20	20	---	---	---
			Thyreostats	27	27	---	---	---
			Zeranol	27	27	---	---	---

Table 58. Normal Reinspection Results *(continued)*
2009 Import Residue Plan

Country	Species	Type	Compound Class	Number of Analyses	Number of Non-Detects	Number of Non-Violative Positives	Number of Violations	Specific Compound (Violation)
Brazil	Beef	Processed	Avermectins	42	41	---	1	Ivermectin
			Chlorinated Organophosphates	6	6	---	---	---
			Other Pesticides	42	42	---	---	---
			Sulfonamides	62	62	---	---	---
Canada	Beef	Fresh	Antibiotics 7-plate	83	83	---	---	---
			Avermectins	86	86	---	---	---
			Chloramphenicol	7	7	---	---	---
			Chlorinated Organophosphates	14	14	---	---	---
			Florfenicol	5	5	---	---	---
			Flunixin	18	18	---	---	---
			Other Pesticides	83	83	---	---	---
			Sulfonamides	85	85	---	---	---
	Chicken	Fresh	Antibiotics 7-plate	82	82	---	---	---
			Arsenic	96	96	---	---	---
			Chloramphenicol	94	94	---	---	---
			Chlorinated Organophosphates	3	3	---	---	---
			Nitroimidazoles	86	86	---	---	---
			Other Pesticides	20	20	---	---	---
	Equine	Fresh	Antibiotics 7-plate	6	6	---	---	---
			Other Pesticides	1	1	---	---	---
			Sulfonamides	4	4	---	---	---
	Lamb	Fresh	Avermectins	4	4	---	---	---
			Chlorinated Organophosphates	1	1	---	---	---
			Other Pesticides	2	2	---	---	---
	Pork	Fresh	Antibiotics 7-plate	137	137	---	---	---
			Arsenic	4	4	---	---	---
			beta-Agonists	6	6	---	---	---
			Chlorinated Organophosphates	13	13	---	---	---
			Other Pesticides	119	119	---	---	---
			Sulfonamides	136	136	---	---	---
	Turkey	Fresh	Antibiotics 7-plate	7	7	---	---	---
			Arsenic	8	8	---	---	---
			Chloramphenicol	8	8	---	---	---
			Chlorinated Organophosphates	1	1	---	---	---
			Other Pesticides	4	4	---	---	---
			Sulfonamides	8	8	---	---	---

Table 58. Normal Reinspection Results *(continued)*
2009 Import Residue Plan

Country	Species	Type	Compound Class	Number of Analyses	Number of Non-Detects	Number of Non-Violative Positives	Number of Violations	Specific Compound (Violation)
Canada, *continued*	Veal	Fresh	Avermectins	44	44	---	---	---
			beta-Agonists	71	71	---	---	---
			Chloramphenicol	44	44	---	---	---
			Sulfonamides	47	47	---	---	---
			Thyreostats	65	65	---	---	---
			Zeranol	70	70	---	---	---
Chile	Beef	Fresh	Antibiotics 7-plate	8	8	---	---	---
			Avermectins	7	7	---	---	---
			Chloramphenicol	7	7	---	---	---
			Chlorinated Organophosphates	3	3	---	---	---
			Florfenicol	8	8	---	---	---
			Flunixin	8	8	---	---	---
			Other Pesticides	5	5	---	---	---
			Sulfonamides	7	7	---	---	---
	Pork	Fresh	Antibiotics 7-plate	4	4	---	---	---
			Arsenic	1	1	---	---	---
			beta-Agonists	4	4	---	---	---
			Sulfonamides	1	1	---	---	---
Costa Rica	Beef	Fresh	Antibiotics 7-plate	6	6	---	---	---
			Avermectins	53	52	1	---	---
			Chloramphenicol	8	8	---	---	---
			Chlorinated Organophosphates	1	1	---	---	---
			Florfenicol	5	5	---	---	---
			Flunixin	6	6	---	---	---
			Other Pesticides	4	4	---	---	---
			Sulfonamides	6	6	---	---	---
Croatia	Pork	Processed	Chlorinated Organophosphates	1	1	---	---	---
			Other Pesticides	5	5	---	---	---
			Sulfonamides	8	8	---	---	---
Denmark	Pork	Fresh	Antibiotics 7-plate	16	16	---	---	---
			Arsenic	8	8	---	---	---
			beta-Agonists	6	6	---	---	---
			Other Pesticides	16	16	---	---	---
			Sulfonamides	17	17	---	---	---
Finland	Pork	Fresh	Antibiotics 7-plate	5	5	---	---	---
			Arsenic	6	6	---	---	---
			beta-Agonists	5	5	---	---	---
			Other Pesticides	1	1	---	---	---
			Sulfonamides	6	6	---	---	---

Table 58. Normal Reinspection Results *(continued)*
2009 Import Residue Plan

Country	Species	Type	Compound Class	Number of Analyses	Number of Non-Detects	Number of Non-Violative Positives	Number of Violations	Specific Compound (Violation)
Germany	Pork	Processed	Other Pesticides	7	7	---	---	---
			Sulfonamides	8	8	---	---	---
Honduras	Beef	Fresh	Antibiotics 7-plate	5	5	---	---	---
			Avermectins	4	4	---	---	---
			Chloramphenicol	4	4	---	---	---
			Florfenicol	4	4	---	---	---
			Flunixin	4	4	---	---	---
			Other Pesticides	2	2	---	---	---
			Sulfonamides	4	4	---	---	---
Hungary	Pork	Processed	Sulfonamides	8	8	---	---	---
Iceland	Lamb	Fresh	Avermectins	8	8	---	---	---
			Other Pesticides	6	6	---	---	---
Ireland	Pork	Fresh	Antibiotics 7-plate	8	8	---	---	---
			Arsenic	4	4	---	---	---
			beta-Agonists	8	8	---	---	---
			Sulfonamides	4	4	---	---	---
Israel	Chicken	Processed	Arsenic	7	7	---	---	---
	Turkey	Processed	Arsenic	8	8	---	---	---
			Sulfonamides	8	8	---	---	---
Italy	Pork	Processed	Chlorinated Organophosphates	1	1	---	---	---
			Other Pesticides	8	8	---	---	---
			Sulfonamides	9	9	---	---	---
Japan	Beef	Fresh	Antibiotics 7-plate	9	9	---	---	---
			Avermectins	9	9	---	---	---
			Chloramphenicol	9	9	---	---	---
			Florfenicol	9	9	---	---	---
			Flunixin	9	9	---	---	---
			Other Pesticides	8	8	---	---	---
			Sulfonamides	9	9	---	---	---
Mexico	Beef	Fresh	Antibiotics 7-plate	8	8	---	---	---
			Avermectins	8	8	---	---	---
			Chloramphenicol	8	8	---	---	---
			Florfenicol	8	8	---	---	---
			Flunixin	8	8	---	---	---
			Other Pesticides	3	3	---	---	---
			Sulfonamides	8	8	---	---	---
	Chicken	Fresh	Antibiotics 7-plate	1	1	---	---	---
			Arsenic	2	2	---	---	---
			Chloramphenicol	2	2	---	---	---
			Nitroimidazoles	1	1	---	---	---

Table 58. Normal Reinspection Results *(continued)*
2009 Import Residue Plan

Country	Species	Type	Compound Class	Number of Analyses	Number of Non-Detects	Number of Non-Violative Positives	Number of Violations	Specific Compound (Violation)
Mexico	Goat	Fresh	Avermectins	6	6	---	---	---
	Pork	Fresh	Antibiotics 7-plate	5	5	---	---	---
			Arsenic	3	3	---	---	---
			beta-Agonists	6	6	---	---	---
			Other Pesticides	3	3	---	---	---
			Sulfonamides	3	3	---	---	---
	Turkey	Processed	Arsenic	2	2	---	---	---
			Other Pesticides	1	1	---	---	---
			Sulfonamides	2	2	---	---	---
Netherlands	Pork	Fresh	Antibiotics 7-plate	8	8	---	---	---
			Arsenic	7	7	---	---	---
			beta-Agonists	8	8	---	---	---
			Sulfonamides	7	7	---	---	---
New Zealand	Beef	Fresh	Antibiotics 7-plate	52	52	---	---	---
			Avermectins	48	48	---	---	---
			Chloramphenicol	5	5	---	---	---
			Chlorinated Organophosphates	5	5	---	---	---
			Florfenicol	5	5	---	---	---
			Flunixin	7	7	---	---	---
			Other Pesticides	44	44	---	---	---
			Sulfonamides	48	48	---	---	---
	Goat	Fresh	Avermectins	8	8	---	---	---
	Lamb	Fresh	Avermectins	8	8	---	---	---
			Chlorinated Organophosphates	3	3	---	---	---
			Other Pesticides	6	6	---	---	---
	Mutton	Fresh	Avermectins	2	2	---	---	---
			Chlorinated Organophosphates	1	1	---	---	---
			Other Pesticides	1	1	---	---	---
	Veal	Fresh	Avermectins	54	54	---	---	---
			beta-Agonists	45	45	---	---	---
			Chloramphenicol	54	54	---	---	---
			Sulfonamides	53	53	---	---	---
			Thyreostats	42	42	---	---	---
			Zeranol	45	45	---	---	---

Table 58. Normal Reinspection Results *(continued)*
2009 Import Residue Plan

Country	Species	Type	Compound Class	Number of Analyses	Number of Non-Detects	Number of Non-Violative Positives	Number of Violations	Specific Compound (Violation)
Nicaragua	Beef	Fresh	Antibiotics 7-plate	6	6	---	---	---
			Avermectins	8	8	---	---	---
			Chloramphenicol	7	7	---	---	---
			Chlorinated Organophosphates	1	1	---	---	---
			Florfenicol	6	6	---	---	---
			Flunixin	7	7	---	---	---
			Other Pesticides	8	8	---	---	---
			Sulfonamides	8	8	---	---	---
Northern Ireland	Pork	Fresh	Antibiotics 7-plate	7	7	---	---	---
			Arsenic	2	2	---	---	---
			beta-Agonists	7	7	---	---	---
			Sulfonamides	2	2	---	---	---
Poland	Pork	Processed	Chlorinated Organophosphates	1	1	---	---	---
			Other Pesticides	9	9	---	---	---
			Sulfonamides	8	8	---	---	---
Spain	Pork	Processed	Chlorinated Organophosphates	1	1	---	---	---
			Other Pesticides	9	9	---	---	---
			Sulfonamides	9	9	---	---	---
Sweden	Pork	Fresh	Antibiotics 7-plate	6	6	---	---	---
			Arsenic	4	4	---	---	---
			beta-Agonists	6	6	---	---	---
			Other Pesticides	1	1	---	---	---
			Sulfonamides	4	4	---	---	---
United Kingdom	Pork	Fresh	Antibiotics 7-plate	8	8	---	---	---
			Arsenic	8	8	---	---	---
			beta-Agonists	8	8	---	---	---
			Sulfonamides	8	8	---	---	---
Uruguay	Beef	Fresh	Antibiotics 7-plate	38	38	---	---	---
			Avermectins	37	37	---	---	---
			Chloramphenicol	1	1	---	---	---
			Chlorinated Organophosphates	1	1	---	---	---
			Florfenicol	5	5	---	---	---
			Flunixin	5	5	---	---	---
			Other Pesticides	10	10	---	---	---
			Sulfonamides	38	38	---	---	---
Total				**3820**	**3818**	**1**	**1**	**---**

Increased Reinspection

Table 59 presents the results for import products subject to increased reinspection. The data include the number of analyses, non-detects, non-violative positives, and violations found for each compound class tested by product class.

Table 59. Increased Reinspection Results
2009 Import Residue Plan

Country	Species	Type	Compound Class	Number of Analyses	Number of Non-Detects
New Zealand	Beef	Fresh	Antibiotics 7-plate	3	3
Total				**3**	**3**

Intensified Reinspection

Table 60 presents results for import products subject to intensified reinspection. The data include the number of analyses, non-detects, non-violative positives, and violations found for each compound class tested by product class.

Table 60. Intensified Reinspection Results
2009 Import Residue Plan

Country	Species	Type	Compound Class	Number of Analyses	Number of Non-Detects
Brazil	Beef	Processed	Avermectins	25	25
Canada	Chicken	Fresh	Other Pesticides	2	2
	Pork	Fresh	Other Pesticides	3	3
Costa Rica	Beef	Fresh	Avermectins	19	19
Total				**49**	**49**

APPENDIX I
Analytical Methods

Table AI. Analytical Methods
2009 U.S. National Residue Program

Compound Class	*Compound*	*Analytical Method*			*Minimum Proficiency Level*[1]		
		Screen	*Determinative (quantitative)*	*Confirmatory (identification)*	*Screen*	*Determinative (quantitative)*	*Confirmatory (identification)*
Antibiotics	Carbadox		GC-ECD	GC/MS		15 ppb	30 ppb
	Chloramphenicol		GC-ECD	GC-MS		0.25 ppb (M)(B)	0.25 ppb (M)(B), 0.30 ppb (M)(T)
	Florfenicol		HPLC	GC/SIM-MS LC/MS/MS		0.3 ppm (L)(B) 0.2 ppm (M)(B) 1.5 ppm (P)(L) 0.6 ppm (P)(M)	0.5 ppm (L)(B), 0.3 ppm (M)(B) 0.3 ppm (B)(L,M)
Antibiotics: *beta*-Lactams	Amoxicillin	7-Plate Bioassay		HPLC/MS-MS		TBD	TBD
	Ampicillin		Bioassay			0.05 ppm	10 ppb
	Cefazolin					TBD	50 ppb
	Cloxacillin					TBD	TBD
	Desacetyl Cephapirin					TBD	100 ppb
	Ceftiofur (Parent) Desfuroyl Ceftiofur (Marker residue for Quantiation) Desfuroylceftiofur cysteine disulfide (DCCD) (Metabolite For Confirmation)		HPLC-UV			0.10 ppm	50 ppb
	Dicloxacillin					TBD	TBD
	Nafcillin					TBD	20 ppb
	Penicillin-G		Bioassay			0.05 ppm	50 ppb
	Oxacillin					TBD	TBD

[1] Minimum Proficiency Level (MPL): The minimum concentration of a residue at which an analytical result will be used to assess a laboratory's quantification capability. This concentration is an estimate of the smallest concentration for which the average coefficient of variation (CV) for reproducibility (i.e., combined within and between laboratory variability) does not exceed 20 percent (9 CFR 318.21).

Method detection limit (MDL): The lowest quantity of residue (or sample component) that can be reliably observed or found in the sample matrix by the analytical methodology used.

Table AI. Analytical Methods
2009 U.S. National Residue Program

Compound Class	*Compound*	*Analytical Method*			*Minimum Proficiency Level*		
		Screen	*Determinative (quantitative)*	*Confirmatory (identification)*	*Screen*	*Determinative (quantitative)*	*Confirmatory (identification)*
Antibiotics: Tetracyclines	Chlortetracycline	7-Plate Bioassay	Bioassay	HPLC		0.05 ppm	0.5 ppm
	Oxytetracycline					0.40 ppm	
	Tetracycline						
Antibiotics: Macrolides	Clindamycin	7-Plate Bioassay		HPLC/MS-MS			0.1 ppm
	Erythromycin		Bioassay			0.25 ppm	0.1 ppm
	Lincomycin						0.1 ppm
	Pirlimycin						0.1 ppm
	Tilmycosin		HPLC-Ion Pairing			300 ppb (M) 600 ppb (L,K)	0.1 ppm
	Tulathromycin						1 ppm
	Tylosin		Bioassay			1.0 ppm	0.1 ppm
Antibiotics: Aminoglycosides	Amikacin	7-Plate Bioassay		HPLC/MS-MS			1.0 ppm (L,K), 0.4 ppm (M)
	Apramycin						0.4 ppm (K), 0.1 ppm (L,M)
	Dihydrostreptomycin		Bioassay			1.0 ppm	0.4 ppm (L,K,M)
	Gentamycin		Bioassay			0.5 ppm	0.1 ppm (K,M), 0.4 (L)
	Hygromycin						1.0 ppm (L,K), 0.4 ppm (M)
	Kanamycin						4.0 ppm(L), 2.0 ppm (K), 0.4 ppm (M)
	Neomycin		Bioassay			2.5 ppm	0.1ppm (K,M), 0.4 (L)
	Spectinomycin						1.0 ppm (L), 0.4 ppm (K) 0.25 ppm (M)
	Streptomycin		Bioassay			0.5 ppm	0.4 ppm (L,K,M)
	Tobramycin						1.0 ppm (L), 0.1 ppm (K,M)

Table AI. Analytical Methods
2009 U.S. National Residue Program

Compound Class	*Compound*	*Analytical Method*			*Minimum Proficiency Level*		
		Screen	*Determinative (quantitative)*	*Confirmatory (identification)*	*Screen*	*Determinative (quantitative)*	*Confirmatory (identification)*
Antibiotics: Fluoroquinolones	Ciprofloxacin	7-Plate Bioassay		HPLC/MS-MS			25 ppb
	Danofloxacin						
	Desethylene diprofloxacin						
	Desmethyl danofloxacin						
	Difloxacin						
	Enrofloxacin						
	Norfloxacin						
	Sarafloxacin						
Arsenicals	Arsenicals		AAS	AAS		0.2 ppm	0.2 ppm
Avermectins	Ivermectin		HPLC	HPLC/APCI-MS		7.5 ppb	25 ppb
	Doramectin						
	Moxidectin						
β-Agonists	Cimaterol	LC/MS/MS		LC/MS/MS	3 ppb		3 ppb
	Clenbuterol				3 ppb		3 ppb
	Ractopamine		HPLC		21 ppb	1 ppb (M), 25 ppb (L)	25 ppb
	Salbutamol				3 ppb		3 ppb
	Zilpaterol				6 ppb		6 ppb
Dyes	Crystal Violet	ELISA			1 ppb		
	Leuchocrystal Violet	ELISA			1 ppb		
	Leuchomalachite Green	ELISA			1 ppb		
	Malachite Green	ELISA			1 ppb		
Heavy metals	Cadmium			ICP/MS			10 ppb
	Lead						25 ppb

Table AI. Analytical Methods
2009 U.S. National Residue Program

Compound Class	*Compound*	*Analytical Method*			*Minimum Proficiency Level*		
		Screen	*Determinative (quantitative)*	*Confirmatory (identification)*	*Screen*	*Determinative (quantitative)*	*Confirmatory (identification)*
Hormones, synthetic	Diethylstilbesterol (DES)		GC-MS	GC-MS		0.5 ppb	1.0 ppb (L,M)
	Zeranol	GC-MS	GC-MS	GC-MS	1.0 ppb	1.0 ppb	1.0 ppb (L,M)
	alpha-Trenbolone			GC/MS-MS	5.0 ppb		5.0 ppb (L)
	beta-Trenbolone			GC/MS-MS			5.0 ppb (M)
Nitrofurans	Furazolidone	LC/MS-MS			5.0 ppb (L) 1.0 ppb (catfish)		5.0 ppb (L) 1.0 ppb (catfish)
	Furaltadone				5.0 ppb (L) 1.0 ppb (catfish)		5.0 ppb (L) 1.0 ppb (catfish)
Nitroimi-dazoles	Hydoxydimetridazole		HPLC	HPLC/MS/MS		1 ppb	1 ppb
	Hydroxyipronidazole					1 ppb	1 ppb
Non-Steroidal Anti-Inflammatory Drugs (NSAIDs)	Flunixin	ELISA	HPLC/ESI-MS-MS	HPLC/ESI-MS-MS	50 ppb	62.5 ppb (L) 12.5 ppb (M)	62.5 ppb (L) 12.5 ppb (M)
Sulfonamides	Sulfapyridine		TLC	GC/ESI-MS		0.05 ppm	0.1 ppm
	Sulfadiazine						
	Sulfathiazole						
	Sulfamerazine						
	Sulfamethazine						
	Sulfachloropyridazine						
	Sulfamethoxypyridazine						
	Sulfaquinoxaline						
	Sulfadimethoxine						
	Sulfaethoxypyridazine						
	Sulfaphenazole						
	Sulfatroxazole						
	Sulfisoxazole						
	Sulfadoxine						

Table AI. Analytical Methods
2009 U.S. National Residue Program

Compound Class	*Compound*	*Analytical Method*			*Minimum Proficiency Level*		
		Screen	*Determinative (quantitative)*	*Confirmatory (identification)*	*Screen*	*Determinative (quantitative)*	*Confirmatory (identification)*
CHCs/COPs/PCBs (continued)	Hexachlorobenzene (HCB)	GC-ECD	GC-ECD		0.10 ppm	0.10 ppm	
	Heptachlor epoxides				0.10 ppm	0.10 ppm	
	Heptachlor				0.03 ppm	0.10 ppm	
	Kepone				0.06 ppm	0.06 ppm	
	Lindane				0.10 ppm	0.10 ppm	
	Linuron				0.50 ppm	0.50 ppm	
	Methoxychlor				0.50 ppm	0.50 ppm	
	Mirex				0.10 ppm	0.10 ppm	
	Trans-Nonachlor				0.15 ppm	0.15 ppm	
	o,p'-TDE				0.15 ppm		
	o,p'-DDT				0.15 ppm	0.15 ppm	
	o,p'-DDE				0.10 ppm		
	Oxychlordane				0.04 ppm	0.04 ppm	
	p,p'-DDE				0.10 ppm	0.10 ppm	
	p,p'-DDT				0.10 ppm	0.15 ppm	
	p,p'-TDE				0.10ppm	0.15 ppm	
	PCB 1260				0.50 ppm	0.50 ppm	
	PCB 1254				0.50 ppm	0.50 ppm	
	Phosalone				0.02 ppm	0.02 ppm	
	Poly brominated biphenyls				0.10 ppm		
	Ronnel				0.03 ppm	0.03 ppm	
	Stirofos				0.04 ppm	0.06 ppm	
	Toxaphene				1.00 ppm	1.00 ppm	
	trans-chlordane				0.04 ppm	0.30 ppm	
Adulterant / Contaminant	Melamine		HPLC-MS-MS	HPLC-MS-MS		50 ppb ground beef 1 ppp RTE	50 ppb ground beef 1 ppp RTE

Table AI. Analytical Methods
2009 U.S. National Residue Program

Key:

AA = Atomic Absorption Spectroscopy
APCI = Atmospheric Pressure Chemical Ionization
B = Bovine
CHCs = Chlorinated hydrocarbons
COPs = Chlorinated organophosphates
ECD = Electron Capture Detection
ELISA = Enzyme Linked Immunosorbent Assay
GC = Gas Chromatography
GPC = Gel Permeation Chromatography
HPLC = High Performance Liquid Chromatography
K = Kidney
L = Liver
M = Muscle
MS = Mass Spectroscopy
P = Poultry
PCBs = Polychlorinated biphenyls
ppb = parts per billion
ppm = parts per million
RTE= Ready to eat
SIM = selected ion mode
TBD = To be determined
TLC = Thin Layer Chromatography
T = Turkey

APPENDIX II
Statistical Table

Statistical Table

Table AII indicates the number of samples required to ensure detection of a violation that affects a given percentage of the sampled population. Statistically, for a binomial distribution with sample size "n" and violation rate "v" (in decimal number), if v is the true violation rate in the population and n is the number of samples, the probability, p, of finding at least one violation among the n samples (assuming random sampling) is: $p = 1-(1-v)^n$. Therefore, if the true violation rate is 1% (i.e., 0.01), the probabilities of detecting at least one violation with sampling levels of 230 and 300 are 0.90 and 0.95, respectively.

Table AII. Statistical Table
2009 U.S. National Residue Program

Percentage % Violative in the Sample (v)	Probability (p) of detecting at least one violation in (n) samples			
	0.90	**0.95**	**0.99**	**0.999**
	Sample size required "n"			
10	22	29	44	66
5	45	59	90	135
1	230	300	459	688
0.5	460	598	919	1,379
0.1	2,302	2,995	4,603	6,905
0.05	4,605	5,990	9,209	13,813

Procedure to calculate the required sample size

$1-p=(1-v)^n$ ← Subtract one from both side of the equation

$\log(1-p)=\log(1-v)^n$ ← Apply logarithmic function to both side of the equation

$\log(1-p)=n*\log(1-v)$ ← A logarithmic function property

$n=\frac{\log(1-p)}{\log(1-v)}$ ← Sample size based on violation rate (v) and probability of detecting (p)

APPENDIX III
Summary of U.S. NRP Scheduled Sampling Data From 2006 to 2008

Table AIII. Summary of U.S. NRP
Scheduled Sampling Data from 2006 to 2008

Antibiotics (7-plate bioassay)

Production Class	CY 2008			CY 2007			CY 2006		
	Number of Analyses	Number of Violations	Specific Antibiotic Violations	Number of Analyses	Number of Violations	Specific Antibiotic Violations	Number of Analyses	Number of Violations	Specific Antibiotic Violations
Beef Cows	------	------	-------	316	0	----------	326	0	----------
Boars/Stags	296	0	-------	364	0	----------	267	0	----------
Bob Veal	253	1	1 gentamicin	----------	----------	----------	278	11	1 gentamicin 9 neomycin 1 oxytetracycline
Bulls	292	0	-------	----------	----------	----------	----------	----------	----------
Dairy Cows	246	0	-------	318	0	----------	310	4	3 gentamicin 1 penicillin
Ducks	57	0	-------	----------	----------	----------	----------	----------	----------
Formula-fed Veal	302	0	-------	343	0	----------	323	0	----------
Geese	------	------	------	----------	----------	----------	----------	----------	----------
Goats	85	1	1 oxytetracycline	----------	----------	----------	----------	----------	----------
Heavy Calves	100	0	-------	237	1	1 oxytetracycline	220	3	1 gentamicin 2 neomycin
Heifers	300	0	-------	302	0	----------	323	0	----------
Horses	------	------	-------	44	0	----------	112	0	----------
Lambs	251	0	-------	----------	----------	----------	----------	----------	----------
Market Hogs	323	0	------	----------	----------	----------	----------	----------	----------
Mature Chickens	------	------	-------	----------	----------	----------	----------	----------	----------

Table AIII. Summary of U.S. NRP
Scheduled Sampling Data from 2006 to 2008

Antibiotics, *continued*

Production Class	CY 2008			CY 2007			CY 2006		
	Number of Analyses	Number of Violations	Specific Antibiotic Violations	Number of Analyses	Number of Violations	Specific Antibiotic Violations	Number of Analyses	Number of Violations	Specific Antibiotic Violations
Mature Sheep	62	0	------	----------	----------	----------	----------	----------	----------
Mature Turkeys	----	------	------	----------	----------	----------	----------	----------	----------
Non-formula-fed Veal	102	0	------	255	3	3 gentamicin	200	6	3 gentamicin 3 neomycin
Rabbits	57	0	------	----------	----------	----------	----------	----------	----------
Roaster Pigs	289	0	------	249	0	----------	241	0	----------
Sows	223	0	------	304	0	----------	300	0	----------
Steers	318	0	------	----------	----------	----------	----------	----------	----------
Young Chickens	296	0	------	311	0	----------	330	0	----------
Young Turkeys	294	0	------	329	0	----------	326	0	----------

Table AIII. Summary of U.S. NRP
Scheduled Sampling Data from 2006 to 2008

Arsenic

Production Class	CY 2008		CY 2007		CY 2006	
	Number of Analyses	Number of Violations	Number of Analyses	Number of Violations	Number of Analyses	Number of Violations
Beef Cows	604	1	------	--------	------	--------
Dairy Cows	------	------	------	--------	------	--------
Egg Products	------	------	------	--------	------	--------
Market Hogs	------	------	291	0	301	0
Mature Chickens	------	------	318	0	297	0
Mature Turkeys	328	0	------	--------	------	--------
Young Chickens	------	------	297	0	349	0
Young Turkeys	------	----	------	--------	----	--------

Table AIII. Summary of U.S. NRP
Scheduled Sampling Data from 2006 to 2008

Avermectins

Production Class	CY 2008			CY 2007			CY 2006		
	Number of Analyses	Number of Violations	Specific Violations	Number of Analyses	Number of Violations	Specific Violations	Number of Analyses	Number of Violations	Specific Violations
Beef Cows	-----	----	-------	--------	------	----------	-------	------	----------
Boars/Stags	287	1	1 ivermectin	-----	----	-------	-----	----	-------
Bulls	272	1	1 moxidectin	302	1	1 ivermectin	309	0	-------
Dairy Cows	-----	----	-------	320	0		-----	----	-------
Formula-fed Veal	-----	----	-------	-----	----	-------	-----	----	-------
Goats	227	0	-------	240	2	2 moxidectin	240	6	1 ivermectin 5 moxidectin
Heavy Calves	117	1	1 doramectin	337	3	1 ivermectin 2 doramectin	234	0	-------
Heifers	-----	----	-------	305	0	-------	321	0	-------
Horses	-----	----	-------	54	0	-------	113	0	-------
Lambs	287	0	-------	268	0	-------	323	1	1 doramectin
Market Hogs	-----	----	-------	-----	----	-------	-----	----	-------
Mature Sheep	213	0	-------	227	0	-------	249	1	1 ivermectin
Non-formula-fed Veal	99	0	-------	298	2	2 ivermectin	173	1	1 ivermectin
Rabbits	58	--	-------	-----	----	-------	-----	----	-------
Sows	311	0	-------	-----	----	-------	-----	----	-------
Steers	-----	----	-------	303	1	1 ivermectin	313	0	-------

Table AIII. Summary of U.S. NRP Scheduled Sampling Data from 2006 to 2008

***beta*-Agonists -1-**

Production Class	CY 2008		CY 2007		CY 2006	
	Number of Analyses	Number of Violations	Number of Analyses	Number of Violations	Number of Analyses	Number of Violations
Beef Cows	----	----	------	---	------	--------
Bulls	----	----	------	---	------	--------
Bob Veal	------	---	------	--------	224	0
Formula-fed veal	------	---	333	0	247	0
Goats	221	0	------	--------	------	--------
Heifers	------	---	306	0	293	0
Market Hogs	310	0	285	0	------	--------
Non-formula-fed Veal	111	0	367	0	175	1 salbutamol
Steers	------	---	------	--------	------	--------

Zilpaterol was added to the beta-agonist analytical methodology in CY 2008

(Ractopamine)

Production Class	CY 2008		CY 2007		CY 2006	
	Number of Analyses	Number of Violations	Number of Analyses	Number of Violations	Number of Analyses	Number of Violations
Beef Cows	----	----	------	---	------	--------
Bulls	----	----	------	---	------	--------
Bob Veal	------	---	------	---	------	---
Formula-fed Veal	------	---	333	0	257	0
Goats	221	0	------	---	------	---
Heifers	------	---	306	0	4	0
Market Hogs	310	0	285	0	------	--------
Non-formula-fed Veal	111	0	367	0	201	0
Steers	------	---	------	--------	------	--------

1- Clenbuterol, Salbutamol, Cimaterol, and Zilpaterol

Table AIII. Summary of U.S. NRP
Scheduled Sampling Data from 2006 to 2008

Carbadox

Production Class	CY 2008		CY 2007		CY 2006	
	Number of Analyses	Number of Violations	Number of Analyses	Number of Violations	Number of Analyses	Number of Violations
Market Hogs	305	1	301	1	------	--------
Roaster Pigs	267	3	322	1	------	--------

Chloramphenicol

Production Class	CY 2008		CY 2007		CY 2006	
	Number of Analyses	Number of Violations/Non-Violative Positives	Number of Analyses	Number of Violations/Non-Violative Positives	Number of Analyses	Number of Violations/Non-Violative Positives
Bob Veal	311	0	------	--------	------	--------
Dairy Cows	------	--------	335	0	254	0
Formula-fed Veal	------	--------	341	0	252	0
Heifers	298	0	------	--------	------	--------
Mature Chickens	332	0	------	--------	------	--------
Mature Turkeys	330	0	------	--------	------	--------
Non-formula-fed Veal	------	--------	------	--------	------	--------
Steers	317	0	------	--------	------	--------
Young Chickens	------	--------	309	0	265	0
Young Turkeys	------	--------	319	0	266	0

Table AIII. Summary of U.S. NRP
Scheduled Sampling Data from 2006 to 2008

Chlorinated Hydrocarbons, Chlorinated Organophosphates, Organophosphates, Pyrethroids, Environmental Contaminants

Production Class	CY 2008			CY 2007			CY 2006		
	Number of Analyses	Number of Violations	Specific Violations	Number of Analyses	Number of Violations	Specific Violations	Number of Analyses	Number of Violations	Specific Violations
Beef Cows	282	0	------	315	0	----------	314	0	---------
Boars/Stags	236	2	1 hexachloro-benzene, 1 mirex	397	4	1 DDT, 2 heptachlor, 1 HCB	284	6	1 halowax 3HCB 1 PBB 1 PBDE,
Bulls	-------	-------	---------	---------	----------	----------	---------	----------	----------
Dairy Cows	302	0	------	330	0	----------	304	2	1 dieldrin 1 permethrin
Egg Products	-------	-------	---------	---------	----------	----------	---------	----------	----------
Formula-fed Veal	-------	-------	---------	---------	----------	----------	---------	----------	----------
Goats	214	0	------	264	1	1 chlordane	211	0	---------
Heavy Calves	117	0	------	---------	----------	----------	---------	----------	----------
Heifers	277	0	------	309	0	----------	333	0	---------
Horses	-------	-------	---------	50	0	----------	281	1	1 PBDE

Table AIII. Summary of U.S. NRP
Scheduled Sampling Data from 2006 to 2008

Chlorinated hydrocarbons, Chlorinated organophosphates, Organophosphates, Pyrethroids, Environmental contaminants, ***continued***

Production Class	CY 2008			CY 2007			CY 2006		
	Number of Analyses	Number of Violations	Specific Violations	Number of Analyses	Number of Violations	Specific Violations	Number of Analyses	Number of Violations	Specific Violations
Lambs	276	0	------	246	1	1 methoxychlor	221	0	---------
Market Hogs	-------	-------	------	---------	----------	----------	---------	----------	----------
Mature Chickens	-------	------	------	---------	---------	---------	---------	---------	---------
Mature Sheep	197	0	------	240	0	----------	208	1	1 PBB
Mature Turkeys	-------	-------	------	---------	---------	---------	---------	---------	---------
Non-formula-fed Veal	-------	-------	------	---------	----------	----------	203	0	---------
Roaster Pigs	-------	-------	------	---------	----------	----------	---------	----------	----------
Sows	228	0	------	323	0	----------	286	2	1 HCB 1 PBB
Steers	-------	-------	------	---------	----------	----------	---------	----------	----------
Young Chickens	------	-------	------	---------	---------	---------	---------	---------	---------
Young Turkeys	------	------	------	---------	---------	---------	---------	---------	---------

Table AIII. Summary of U.S. NRP
Scheduled Sampling Data from 2006 to 2008

Florfenicol

Production Class	CY 2008		CY 2007		CY 2006	
	Number of Analyses	Number of Violations	Number of Analyses	Number of Violations	Number of Analyses	Number of Violations
Beef Cows	206	0	-----	------	-----	------
Bob Veal	-----	-----	-----	-----	-----	-----
Dairy Cows	-----	------	373	0	270	0
Formula-fed Veal	-----	------	340	1	-----	------
Mature Chickens	266	0	-----	------	-----	------
Non-formula-fed Veal	63	0	292	4	78	2
Steers	-----	------	----	-----	------	------

Flunixin

Production Class	CY 2008		CY 2007		CY 2006	
	Number of Analyses	Number of Violations	Number of Analyses	Number of Violations	Number of Analyses	Number of Violations
Beef Cows	-----	------	-----	------	306	0
Bob Veal	-----	------	-----	------	---	---
Bulls	84	0	-----	------	232	1
Dairy Cows	90	0	-----	------	292	4
Heavy Calves	-----	------	-----	------	214	0

Table AIII. Summary of U.S. NRP
Scheduled Sampling Data from 2006 to 2008

Melengestrol acetate (MGA)

Production Class	CY 2008		CY 2007		CY 2006	
	Number of Analyses	Number of Violations	Number of Analyses	Number of Violations	Number of Analyses	Number of Violations
Heifers	285	0	309	0	329	0

Nitrofurans

Production Class	CY 2008		CY 2007		CY 2006		
	Number of Analyses	Number of Violations	Number of Analyses	Number of Violations	Number of Analyses	Number of Violations	Specific Nitrofurans Violations
Dairy Cows	237	0	----------	----------	285	1	1 furazolidone
Formula-fed Veal	-----	------	----------	----------	257	0	----------
Heifers	-----	------	----------	----------	321	0	----------
Market Hogs	303	0	302	0	----------	----------	----------
Roaster Pigs	-----	------	328	0	----------	----------	----------
Steers	-----	------	----------	----------	----------	----------	----------
Sows	295	0	325	0	----------	----------	----------

Nitroimidazoles

Production Class	CY 2008		CY 2007		CY 2006	
	Number of Analyses	Number of Violations	Number of Analyses	Number of Violations	Number of Analyses	Number of Violations
Young Chickens	293	0	306	0	----------	----------
Young Turkeys	-----	------	----------	----------	337	0

Table AIII. Summary of U.S. NRP
Scheduled Sampling Data from 2006 to 2008

Sulfonamides

Production Class	CY 2008			CY 2007			CY 2006		
	Number of Analyses	Number of Violations	Specific sulfonamides Violations	Number of Analyses	Number of Violations	Specific sulfonamides Violations	Number of Analyses	Number of Violations	Specific sulfonamides Violations
Beef Cows	---	--	------	312	0	----------	317	0	----------
Boars/Stags	---	--	------	----------	--------	----------	----------	----------	----------
Bob Veal	254	1	1 sulfamethoxazole	315	2	1 sulfadimethoxine 1 sulfamethazine	300	3	1 sulfadimethoxine 2 sulfamethazine
Bulls	---	--	------	302	0	----------	297	0	
Dairy Cows	224	0	------	336	3	1 sulfadimethoxine 2 sulfamethazine	317	3	1 sulfadimethoxine 2 sulfamethazine
Ducks	---	--	------	-----	--------	----------	----------	----------	----------
Egg Products	---	--	------	-----	--------	----------	----------	----------	----------
Formula-fed Veal	---	--	------	-----	--------	----------	253	0	-------
Goats	233	--	------	317	0	----------	------	-----	---------
Heavy Calves	122	1	1 sulfamethazine	337	1	1 sulfadimethoxine	222	1	1 sulfamethazine
Heifers	306	1	1 sulfamethazine	------	-----	---------	----------	------	-----
Lambs	---	--	------	342	0	----------	----------	----------	----------
Market Hogs	223	2	2 sulfamethazine	291	2	2 sulfamethazine	267	1	1 sulfamethazine
Mature Chickens	334	0	------	------	---------	----------	----------	----------	----------
Mature Sheep	---	--	------	283	0	----------	----------	----------	----------
Mature Turkeys	---	--	------	328	0	----------	261	0	----------
Non-formula-fed Veal	104	1	1 sulfamethazine	382	2	1 sulfadimethoxine 1 sulfamethazine	165	0	----------
Roaster Pigs	230	0	------	327	4	4 sulfamethazine	311	8	1 sulfadimethoxine 7 sulfamethazine
Sows	314	2	2 sulfamethazine	------	---------	----------	------	--------	----------
Steers	252	0	------	303	1	1 sulfamethazine	298	1	1 sulfamethazine
Young Chickens	294	0	------	297	0	----------	----------	----------	----------
Young Turkeys	---	--	------	320	1	1 sulfaquinoxaline	----------	----------	----------

Table AIII. Summary of U.S. NRP
Scheduled Sampling Data from 2006 to 2008

Thyreostats

Production Class	CY 2008		CY 2007		CY 2006	
	Number of Analyses	Number of Violations	Number of Analyses	Number of Violations	Number of Analyses	Number of Violations
Beef Cows	313	0	-----	------	-----	------
Dairy Cows	-----	------	-----	------	-----	------
Formula-fed Veal	-----	------	342	0	-----	------
Heifers	-----	------	-----	------	-----	------
Market Hogs	-----	------	-----	------	291	0
Sows	-----	------	-----	------	-----	------
Steers	-----	------	-----	------	-----	------

Trenbolone

Production Class	CY 2008		CY 2007		CY 2006	
	Number of Analyses	Number of Violations	Number of Analyses	Number of Violations	Number of Analyses	Number of Violations
Formula-fed Veal	93	0	258	0	323	0
Non-formula-fed Veal	97	0	-----	------	174	2

Zeranol

Production Class	CY 2008		CY 2007		CY 2006	
	Number of Analyses	Number of Violations	Number of Analyses	Number of Violations	Number of Analyses	Number of Violations
Formula-fed Veal	94	0	261	0	323	0
Non-formula-fed Veal	97	0	-----	------	-----	------