United States National Residue Program Quarterly Report (July–Sept. 2015)

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Introduction

Background

The USDA Food Safety and Inspection Service (FSIS) administers the United States National Residue Program (hereafter, NRP) for meat, poultry, and egg products. The NRP is an interagency program between FSIS, the Food and Drug Administration and the Environmental Protection Agency that was established to identify, rank, and test for chemical residues in FSIS regulated products.

The 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) report results; and, (4) identify the need for regulatory follow-up subsequent to the identification of violative levels of chemical residues.

FSIS administers this regulatory program under the Federal Meat Inspection Act (FMIA) (21 U.S.C. 601 et seq.), the Poultry Products Inspection Act (PPIA) (21 U.S.C. 453 et seq.), and the Egg Products Inspection Act (EPIA) (21 U.S.C. 1031 et seq.). The NRP is designed to protect the health and welfare of consumers by regulating the meat, poultry, and egg products produced in federally inspected establishments and to prevent the distribution in commerce of any such products that are adulterated or misbranded.

FSIS has administered the NRP by collecting meat, poultry, and egg product samples and analyzing the samples for specific chemical compounds at FSIS laboratories. The program has analyzed meat and poultry samples since 1967. The program began sampling egg products in 1995.

Beginning in August 2012, FSIS implemented several new multi-residue chemical methods for both of the domestic sampling programs. By incorporating the multi-residue method, the agency discontinued the use of testing production classes for single chemical or chemical classes ("pairing").

The new methods allows for the analysis of hundreds of chemicals in a single sample. These changes are detailed in the July 6, 2012 Federal Register Notice. (http://www.fsis.usda.gov/wps/wcm/connect/96433e1b-d3b6-42b0-93a8-f0beee77e520/2012-0012.pdf?MOD=AJPERES)

A violation occurs when an FSIS laboratory detects a chemical compound in excess of an established tolerance or action level. When a violation is identified, FSIS informs the establishment electronically and the producer via certified letter. Under best practices, the establishment also should notify the producer that an animal from that business had a violative chemical level.

FSIS shares the violation data with the Environmental Protection Agency (EPA) and the Food and Drug Administration (FDA), which establish violative levels for chemical residues. The FDA has on-farm jurisdiction and works with cooperating State agencies to investigate producers linked to residue violations and enforce legal action if conditions leading to the residue violations are not corrected.

The NRP sampling plans focus on chemical residues in domestic meat, poultry, and egg products. The domestic sampling plan includes scheduled sampling (headquarters-directed) and inspector-generated (targeted) sampling. Scheduled sampling plans involve random tissue sampling from food animals that have passed ante-mortem inspection.

Domestic Scheduled Sampling

Under the current scheduled sampling program, FSIS inspectors test twelve production classes (beef cows, bob veal calves, dairy cows, lamb, steers, heifers, goats, sheep, market hogs, sows, young chickens, and young turkeys) representing 96 percent of domestic meat and poultry consumption.

Domestic Inspector-generated Sampling

Inspector-generated sampling is conducted by the Office of Field Operations' in-plant personnel (IPP), overseen by the Public Health Veterinarians (PHVs). Currently, IPP inspector-generated sampling targets individual suspect animals, suspect populations of animals, and special sampling for bob veal calves per 9 CFR 310.21 (c) and (d).

When an inspector-generated sample is collected, the carcass is held pending the results of laboratory testing. If a carcass is found to contain violative levels of residues, FSIS condemns the carcass.

Port-of-Entry Reinspection Sampling

Under the import reinspection plan, imported meat, poultry, and egg products are sampled by FSIS inspectors through the Port-of-Entry Reinspection Program. This program is a chemical residue-monitoring program conducted to verify the equivalence of inspection systems in exporting countries.

All imported products are subject to reinspection and one or more types of inspection (TOI). These procedures ensure that every lot of product is inspected before it enters the United States. Chemical residue sampling is included in the reinspection of imported products.

Purpose of Quarterly Report

The Quarterly Report summarizes the chemical residue results for the domestic (Scheduled and Inspector-generated) and import sampling programs analyzed in July–Sept. 2015. FSIS continues to publish National Residue Program Data (also known as the Red Book) on an annual basis, as the final analysis of the NRP.

The report here is divided into tables and an appendix. The tables summarize the current fourth quarter (**July–Sept. 2015**) by month, whereas the appendix will include previous three quarters' (**Oct. 2014–June 2015**) results for a quick comparison with current quarter report.

Note: Some tables in this report provide results based on the number of unique violative carcasses, while other tables provide results as individual chemical in carcasses regardless of number of violative results per carcass. Multiple chemical residue violations may be associated with the same carcass.

Comments are welcome. Please submit your comment to Naser Abdelmajid at Naser.abdelmajid@fsis.usda.gov

Note: Results are based on sample collection date.
Data Source: FSIS Data Warehouse (DW)/ Public Health Information System (PHIS) **as of Dec. 28, 2015**

Tables

Table 1a: NRP Domestic Scheduled Sampling Program Results by Month, July–Sept. 2015

During the fourth quarter of FY 2015, **1,713** samples were collected from beef cows, bob veal calves, dairy cows, steers, heifers, lamb, goats, sheep, market hogs, sows, young chickens, young turkeys, and older breeder turkey. Tissues analyzed include muscle, kidney, and liver. The program identified four chemical residues at violative level.

Sample Collection Month	Number of Samples / (FSIS Lab Chemical Analytes)	Number of Violative Carcasses/(Number of Lab Confirmed Violative Samples)	Number Violative Chemical Residues Detected
July	550 / **(57,452)**	1 / (1) Market Hogs	**2 (Piperonyl Butoxide)**
Aug.	574 / **(60,043)**	1 / (2) Young turkeys	**2 (Sulfadimethoxine)**
Sept.	589 / **(55,246)**	1 / (1) Bob veal 1 / (1) Goats 1 / (1) Lamb	**1 (Flunixin)** **1 (MGK-264)** **1 (Moxidectin)**
Total	**1,713 / (172,741)**	**5 / (6)**	

Note: Results are based on sample collection date.
Data Source: FSIS Data Warehouse (DW)/ Public Health Information System (PHIS) **as of Dec. 28, 2015**

Table 1b: NRP Domestic Scheduled Sampling Program collected by Month, Carcass Class, July–Sept. 2015

Carcass Class	July	Aug.	Sept.	Total
Beef Cows	72	64	65	201
Bob veal	39	38	39	116
Dairy Cows	64	62	65	191
Goats	29	27	30	86
Heifer	39	46	46	131
Lamb	13	15	14	42
Market Swine	59	78	69	206
Sows	55	60	72	187
Steers	41	42	53	136
Young Chickens	55	58	57	170
Young Turkeys	61	56	55	172
Older Breeder Turkeys	3	8	5	16
TOTAL	**550**	**571**	**589**	**1,713**

Table 2: NRP Domestic Inspector-Generated (In-plant) Screening Program (KIS™ Test) Performed by Month, Carcass Class, July–Sept. 2015

The numbers in parentheses represents the number of in-plant screen positives that were sent to FSIS labs.

Carcass Class	July	Aug.	Sept.	Total
Beef Cows	1,021 **(25)**	1,081 **(31)**	1,326 **(27)**	**3,428** **(83)**
Boars/Stags	5 **(0)**	8 **(0)**	15 **(1)**	**28** **(1)**
Bob Veal	1,611 **(20)**	1,587 **(20)**	1,909 **(43)**	**5,107** **(83)**
Bulls	142 **(7)**	111 **(7)**	151 **(4)**	**404** **(18)**
Dairy Cows	8,958 **(212)**	7,846 **(269)**	8,025 **(233)**	**24,829** **(714)**
Formula Fed Veal	43 **(1)**	27 **(0)**	55 **(1)**	**125** **(2)**
Goats	51 **(0)**	92 **(2)**	63 **(0)**	**206** **(2)**
Heavy Calves	25 **(2)**	37 **(0)**	51 **(2)**	**113** **(4)**

Note: Results are based on sample collection date.
Data Source: FSIS Data Warehouse (DW)/ Public Health Information System (PHIS) **as of Dec. 28, 2015**

Table 2 (Continued): NRP Domestic Inspector-Generated (In-plant) Screening Program (KIS™ Test) Performed by Month, Carcass Class, July–Sept. 2015

The numbers in parentheses represents the number of in-plant screen positives that was sent to FSIS labs.

Carcass Class	July	Aug.	Sept.	Total
Heifers	189 **(5)**	200 **(6)**	165 **(7)**	**554** **(18)**
Lambs	124 **(0)**	301 **(2)**	164 **(1)**	**589** **(3)**
Market Hogs	1,456 **(25)**	1,928 **(28)**	1,704 **(22)**	**5,088** **(75)**
Mature Sheep	34 **(3)**	28 **(1)**	25 **(0)**	**87** **(4)**
Non Formula Fed Veal	16 **(0)**	6 **(0)**	3 **(0)**	**25** **(0)**
Roaster Pigs	115 **(0)**	94 **(1)**	87 **(1)**	**296** **(1)**
Sows	506 **(7)**	489 **(3)**	547 **(5)**	**1,542** **(15)**
Steers	749 **(9)**	842 **(15)**	727 **(20)**	**2,318** **(44)**
TOTAL	**15,045** **(316)**	**14,677** **(385)**	**15,017** **(366)**	**44,739** **(1,067)**

Note: Results are based on sample collection date.
Data Source: FSIS Data Warehouse (DW)/ Public Health Information System (PHIS) **as of Dec. 28, 2015**

Table 3: NRP Domestic Inspector-Generated (In-plant) Screening Program (KIS™ Test).
Results by Month, July–Sept. 2015

1,067 in-plant screen positive values were identified from about 45,000 in-plant tests. Of these positive samples, 198 were lab-confirmed violative samples. Several of the violative tissue samples were associated with the same carcass.

Sample Collection Month	Number of In-plant Screen Tests	Number of Positive In-plant Screens Sent to FSIS Labs	Number of Positive In-plant Screens Tested in FSIS Labs (FSIS Lab Chemical Analytes screened for)	Number of Carcasses with Violative Samples	Number of Lab-confirmed Violative Samples	Three Most Commonly Reported Chemical Violations (Number of Violative Samples for 3 Most Reported Violations)	Total Number of DISTINCT Violative Chemical Residues
July	15,045	316	310 / (**20,765**)	46	**60**	Penicillin (**16**) Ceftiofur (**13**) Flunixin (**7**)	**14**
Aug.	14,677	385	379 / (**25,421**)	45	**53**	Ceftiofur (**20**) Penicillin (**8**) Sulfadimethoxine (**7**)	**10**
Sept.	15,017	366	355 / (**23,775**)	69	**85**	Ceftiofur (**22**) Penicillin (**19**) Sulfamethzine (**10**)	**15**
Total	**44,739**	**1,067**	**1,044** / (**69,961**)	**160**	**198**	Ceftiofur (**55**) Penicillin (**43**) Sulfamethzine (**22**)	**19**

Note: Results are based on sample collection date.
Data Source: FSIS Data Warehouse (DW)/ Public Health Information System (PHIS) **as of Dec. 28, 2015**

Table 4: Distribution of NRP Residue Violations Inspector-Generated (In-plant) Screening Program (KIS™ Test). Results by Carcass Class and Month, July–Sept. 2015

Violations reported for inspector-generated samples by production class. Samples include in-plant screened samples (KIS™ Test). The number of laboratory confirmed violations appear in **parentheses**. Results include multiple violative tissues associated with the same sample.

Carcass Class	July	Aug.	Sept.	Total
Beef Cows	3 **(3)**	7 **(11)**	4 **(4)**	**14** **(18)**
Boars/Stags	--	--	1 **(1)**	1 **(1)**
Bob Veal	3 **(4)**	1 **(1)**	10 **(16)**	**14** **(21)**
Bulls	1 **(1)**	1 **(2)**	--	**2** **(3)**
Dairy Cows	32 **(39)**	33 **(36)**	42 **(48)**	**107** **(123)**
Formula Fed Veal	--	--	--	--
Goats	--	--	--	--
Heavy Calves	1 **(3)**	--	1 **(1)**	**2** **(4)**

Note: Results are based on sample collection date.
Data Source: FSIS Data Warehouse (DW)/ Public Health Information System (PHIS) **as of Dec. 28, 2015**

Table 4 (Continued): Distribution of NRP Residue Violations Inspector-Generated (In-plant) Screening Program (KIS™ Test). Results by Carcass Class and Month, July–Sept. 2015

Violations reported for inspector-generated samples by production class. Samples include in-plant screened samples (KIS™ Test). The number of laboratory confirmed violations appear in **parentheses**. Results include multiple violative tissues associated with the same sample.

Carcass Class	July	Aug.	Sept.	Total
Heifers	1 **(1)**	--	1 **(1)**	**2** **(2)**
Lambs	--	--	1 **(1)**	1 **(1)**
Market Hogs	--	2 **(2)**	1 **(2)**	**3** **(4)**
Mature Sheep	--	--	--	--
Non Formula Fed Veal	--	--	--	--
Roaster Pigs	--	--	--	--
Sows	2 **(2)**	1 **(1)**	2 **(3)**	**5** **(6)**
Steers	3 **(7)**	--	6 **(8)**	**9** **(15)**
TOTAL	**46** **(60)**	**45** **(53)**	**69** **(85)**	**160** **(198)**

Note: Results are based on sample collection date.
Data Source: FSIS Data Warehouse (DW)/ Public Health Information System (PHIS) **as of Dec. 28, 2015**

Table 5a: Overall Distribution of NRP Residue Violations Inspector-Generated (In-plant) Screening Program (KIS™ Test). Results by Carcass Class and Chemical Residue (Combined July–Sept. 2015)

Violations reported for inspector-generated sampling for each production by specific chemical residue. The results include in-plant screened samples (KIS™ Test) sent to lab. Results include multiple violative tissues samples associated with the same Carcass.

Note: The three most commonly reported chemical violations are highlighted.

Compound	Beef Cows	Boars/Stags	Bob Veal	Bulls	Dairy Cows	Heavy Calves	Heifers	Lamb	Market Hogs	Sows	Steers	Total
Ampicillin	-	-	-	-	8	-	-	-	-	-	-	**8**
Cefazolin	-	-	-	-	-	-	-	-	-	-	1	**1**
Ciprofloxacin	-	-	-	1	-	-	-	-	-	-	-	**1**
Desfuroylceftiofur	4	-	2	-	47	-	-	-	-	-	2	**55**
Erythromycin	-	-	-	-	-	-	-	-	-	-	1	**1**
Florfenicol	-	-	2	-	3	2	-	-	-	-	1	**8**
Flunixin	1	-	2	-	15	-	-	-	-	-	-	**18**
Gentamycin Sulfate	-	-	-	-	-	-	-	-	-	1	-	**1**
Neomycin	-	-	1	-	-	-	-	-	-	-	-	**1**
Oxytetracycline	1	-	-	-	3	-	-	-	-	-	-	**4**

Note: Results are based on sample collection date.
Data Source: FSIS Data Warehouse (DW)/ Public Health Information System (PHIS) **as of Dec. 28, 2015**

Table 5a (Continued): Overall Distribution of NRP Residue Violations Inspector-Generated (In-plant) Screening Program (KIS™ Test). Results by Carcass Class and Chemical Residue (Combined July–Sept. 2015)

Violations reported for inspector-generated sampling for each production by specific chemical residue. The results include in-plant screened positive samples (KIS™ Test) tested in FSIS labs. **Results include multiple violative tissues samples associated with the same carcass.**

Compound	Beef Cows	Boars/Stags	Bob Veal	Bulls	Dairy Cows	Heavy Calves	Heifers	Lamb	Market Hogs	Sows	Steers	Total
Penicillin	4	1	-	-	28	1	2	1	-	5	1	**43**
Ractopamine	-	-	-	-	-	-	-	-	2	-	-	**2**
Sulfadiazine	-	-	1	-	-	-	-	-	-	-	-	**1**
Sulfadimethoxine	2	-	4	-	9	-	-	-	1	-	-	**16**
Sulfamethazine	4	-	4	1	6	1	-	-	1	-	5	**22**
Sulfamethoxazole	-	-	1	-	-	-	-	-	-	-	-	**1**
Sulfamethoxypyridazine	-	-	-	-	2	-	-	-	-	-	2	**4**
Tetracycline	-	-	-	-	2	-	-	-	-	-	-	**2**
Tilmicosin	2	-	4	1	-	-	-	-	-	-	2	**9**
Total	**18**	**1**	**21**	**3**	**123**	**4**	**2**	**1**	**4**	**6**	**15**	**198**

Note: Results are based on sample collection date.
Data Source: FSIS Data Warehouse (DW)/ Public Health Information System (PHIS) **as of Dec. 28, 2015**

Table 5b: Distribution of NRP Residue Violations Inspector-Generated (In-plant) Screening Program (KIS™ Test). Results by Carcass Class and Chemical Residue, July 2015

Compound	Beef Cows	Bob Veal	Bulls	Dairy Cows	Heavy Calves	Heifers	Sows	Steers	Total
Ampicillin	-	-	-	2	-	-	-	-	**2**
Cefazolin	-	-	-	-	-	-	-	1	**1**
Ciprofloxacin	-	-	1	-	-	-	-	-	**1**
Ceftiofur	2	1	-	10	-	-	-	-	**13**
Florfenicol	-	-	-	1	2	-	-	-	**3**
Flunixin	-	-	-	7	-	-	-	-	**7**
Gentamycin Sulfate	-	-	-	-	-	-	1	-	**1**
Neomycin	-	1	-	-	-	-	-	-	**1**
Oxytetracycline	-	-	-	1	-	-	-	-	**1**
Penicillin	-	-	-	13	1	1	1	-	**16**
Sulfadimethoxine	-	-	-	4	-	-	-	-	**4**
Sulfamethazine	-	2	-	1	-	-	-	3	**6**
Sulfamethoxypyridazine	-	-	-	-	-	-	-	1	**1**
Tilmicosin	1	-	-	-	-	-	-	2	**3**
Total	**3**	**4**	**1**	**39**	**3**	**1**	**2**	**7**	**60**

Table 5c: Distribution of NRP Residue Violations Inspector-Generated (In-plant) Screening Program (KIS™ Test). Results by Carcass Class and Chemical Residue, Aug. 2015

Compound	Beef Cows	Bob Veal	Bulls	Dairy Cows	Market Hogs	Sows	Total
Ampicillin	-	-	-	2	-	-	**2**
Ceftiofur	2	-	-	18	-	-	**20**
Florfenicol	-	-	-	2	-	-	**2**
Flunixin	-	1	-	4	-	-	**5**
Oxytetracycline	1	-	-	-	-	-	**1**
Penicillin	2	-	-	5	-	1	**8**
Sulfadimethoxine	2	-	-	4	1	-	**7**
Sulfamethazine	4	-	1	-	1	-	**6**
Tetracycline	-	-	-	1	-	-	**1**
Tilmicosin	-	-	1	-	-	-	**1**
Total	**11**	**1**	**2**	**36**	**2**	**1**	**53**

Note: Results are based on sample collection date.
Data Source: FSIS Data Warehouse (DW)/ Public Health Information System (PHIS) **as of Dec. 28, 2015**

Table 5d: Distribution of NRP Residue Violations Inspector-Generated (In-plant) Screening Program (KIS™ Test). Results by Carcass Class and Chemical Residue, Sept. 2015

Compound	Beef Cows	Boar/Stag	Bob Veal	Dairy Cows	Heavy Calves	Heifers	Lamb	Market Hogs	Sows	Steers	Total
Ampicillin	-	-	-	4	-	-	-	-	-	-	**4**
Ceftiofur	-	-	1	19	-	-	-	-	-	2	**22**
Erythromycin	-	-	-	-	-	-	-	-	-	1	**1**
Florfenicol	-	-	2	-	-	-	-	-	-	1	**3**
Flunixin	1	-	1	4	-	-	-	-	-	-	**6**
Oxytetracycline	-	-	-	2	-	-	-	-	-	-	**2**
Penicillin	2	1	-	10	-	1	1	-	3	1	**19**
Ractopamine	-	-	-	-	-	-	-	2	-	-	**2**
Sulfadiazine	-	-	1	-	-	-	-	-	-	-	**1**
Sulfadimethoxine	-	-	4	1	-	-	-	-	-	-	**5**
Sulfamethazine	-	-	2	5	1	-	-	-	-	2	**10**
Sulfamethoxazole	-	-	1	-	-	-	-	-	-	-	**1**
Sulfamethoxypyridazine	-	-	-	2	-	-	-	-	-	1	**3**
Tetracycline	-	-	-	1	-	-	-	-	-	-	**1**
Tilmicosin	1	-	4	-	-	-	-	-	-	-	**5**
Total	**4**	**1**	**16**	**48**	**1**	**1**	**1**	**2**	**3**	**8**	**85**

Note: Results are based on sample collection date.
Data Source: FSIS Data Warehouse (DW)/ Public Health Information System (PHIS) **as of Dec. 28, 2015**

Table 6: NRP Import Sample Collected by Country July–Sept 2015

Three violative residue import results (Abamectin, Arsenic, and Ivermectin) were found in 586 tested import samples. See Table 10 for more details.

Country	July	Aug.	Sept.	Total
Canada	57	28	64	149
Mexico	49	21	20	90
Iceland	-	-	44	44
Australia	18	7	17	42
Ireland	-	15	20	35
Brazil	8	11	12	31
Other**	56	55	84	195
Total	**188**	**137**	**261**	**586**

** The following additional countries eligible to export meat and egg product to the United States did not produce a violation: Argentina, Chile, Costa Rica, Denmark, Israel, Italy, Japan, Netherlands, New Zealand, Nicaragua, Northern Ireland, Poland, Spain, United kingdom, and Uruguay

Table 7: NRP Import Sample Analysis by Species, July–Sept. 2015

The number of samples analyses under the import reinspection program by production class.

Species	July	Aug.	Sept.	Total
Beef	511	325	442	1,278
Chicken	55	77	136	268
Goat	3	14	28	45
Lamb	50	29	310	389
Mutton	14	14	43	71
Pork	198	118	366	682
Turkey	140	64	66	270
Veal	47	36	33	116
Total	**1,018**	**677**	**1,424**	**3,119**

Note: Based on 586 import residue samples. Multiple import residue results may be associated with the same sample.

Table 8: NRP Import Sample Analysis by Chemical Residue, July–Sept. 2015

The number of import analyses based on 586 import residue samples collected and analyzed during the import reinspection program tested for different chemical residues.

Chemical Residue	July	Aug.	Sept.	Total
Abamectin	-	1	-	1
Aminoglycosides	77	49	106	232
Analgesics/Anti-Inflammatory	77	49	106	232
Arsenic	64	49	99	212
Avermectins	46	36	81	163
Beta Agonists	77	49	106	232
Beta Lactams	39	25	66	130
Beta Lactams/Cephalosporins	38	24	39	101
Cadmium	-	-	1	1
Cobalt	-	-	1	1
Drugs, General	47	32	71	150
Ethion	1	-	-	1
Fluoroquninolones	77	49	106	232
Hormones	98	63	109	270
Iron	-	-	2	2
Ivermectin	1	4	3	8
Lead	-	-	1	1
Macrolides	77	49	103	229
Manganese	4	1	4	9
Pesticides	52	36	77	165
Phenicols	77	49	103	229
Selenium	-	-	1	1
Strontium	1	-	-	1
Sulfas	80	56	112	248
Tetracyclines	77	49	103	229
Trace Elements	4	5	10	19
Zinc	4	2	14	20
Total	**1,018**	**677**	**1,424**	**3,119**

Note: Multiple import residue results may be associated with the same sample.

Table 9: NRP Import Sample Analyses by Species and Chemical Residue, July–Sept. 2015

Number of import reinspection program analyses arranged by product class tested for chemical residue.

Chemical Residue	Beef	Chicken	Goat	Lamb	Mutton	Pork	Turkey	Veal	Total
Abamectin	1	-	-	-	-	-	-	-	1
Aminoglycosides	91	21	3	28	5	53	21	10	232
Analgesics/Anti-Inflammatory	91	21	3	28	5	53	21	10	232
Arsenic	90	21	4	33	5	39	18	2	212
Avermectins	83	-	4	30	5	39	-	2	163
Beta Agonists	91	21	3	28	5	53	21	10	232
Beta Lactams	46	11	3	28	5	27	8	2	130
Beta Lactams/Cephalosporins	45	10	-	-	-	26	12	8	101
Cadmium	-	-	-	-	-	1	-	-	1
Cobalt	-	-	-	-	-	1	-	-	1
Drugs, General	46	21	3	26	5	26	21	2	150
Ethion	1	-	-	-	-	-	-	-	1
Fluoroquninolones	91	21	3	28	5	53	21	10	232
Hormones	135	21	3	26	4	51	20	10	270
Iron	1	-	-	-	-	1	-	-	2
Ivermectin	8	-	-	-	-	-	-	-	8
Lead	-	-	-	-	-	1	-	-	1

Note: Based on 586 import residue samples. Multiple import residue results may be associated with the same sample.

Table 9 (Continued): NRP Import Sample Analyses by Species and Chemical Residue, July–Sept. 2015

Chemical Residue	Beef	Chicken	Goat	Lamb	Mutton	Pork	Turkey	Veal	Total
Macrolides	91	21	3	26	5	52	21	10	229
Manganese	1	2	-	2	-	2	2	-	9
Pesticides	64	10	4	28	7	30	14	8	165
Phenicols	91	21	3	26	5	52	21	10	229
Selenium	-	-	-	-	-	1	-	-	1
Strontium	-	-	-	-	-	-	1	-	1
Sulfas	101	21	3	26	5	59	23	10	248
Tetracyclines	91	21	3	26	5	52	21	10	229
Trace Elements	2	4	-	-	-	9	3	1	19
Zinc	17	-	-	-	-	1	1	1	20
Total	**1,278**	**268**	**45**	**389**	**71**	**682**	**270**	**116**	**3,119**

Note: Based on 586 import residue samples. Multiple import residue results may be associated with the same sample.

Table 10: NRP Import Sample Analyses by Chemical Residue Results, July–Sept. 2015

Number of import reinspection program analyses arranged by results of chemical residue. **Three** chemical residue violations were found.

Chemical Residue	Residue Detected - Not-Violative	Residue Not Detected	Residue Detected - Violative	Total
Abamectin	-	-	1	1
Aminoglycosides	-	232	-	232
Analgesics/Anti-Inflammatory	-	232	-	232
Arsenic	6	205	1	212
Avermectins	-	163	-	163
Beta Agonists	-	232	-	232
Beta Lactams	-	130	-	130
Beta Lactams/Cephalosporins	-	101	-	101
Cadmium	-	1	-	1
Cobalt	-	1	-	1
Drugs, General	-	150	-	150
Ethion	-	1	-	1
Fluoroquninolones	-	232	-	232
Hormones	-	270	-	270
Iron	-	2	-	2
Ivermectin	7	-	1	8
Lead	-	1	-	1

Note: Based on 586 import residue samples. Multiple import residue results may be associated with the same sample.

Table 10 (Continued): NRP Import Sample Analyses by Chemical Residue Results, July–Sept 2015

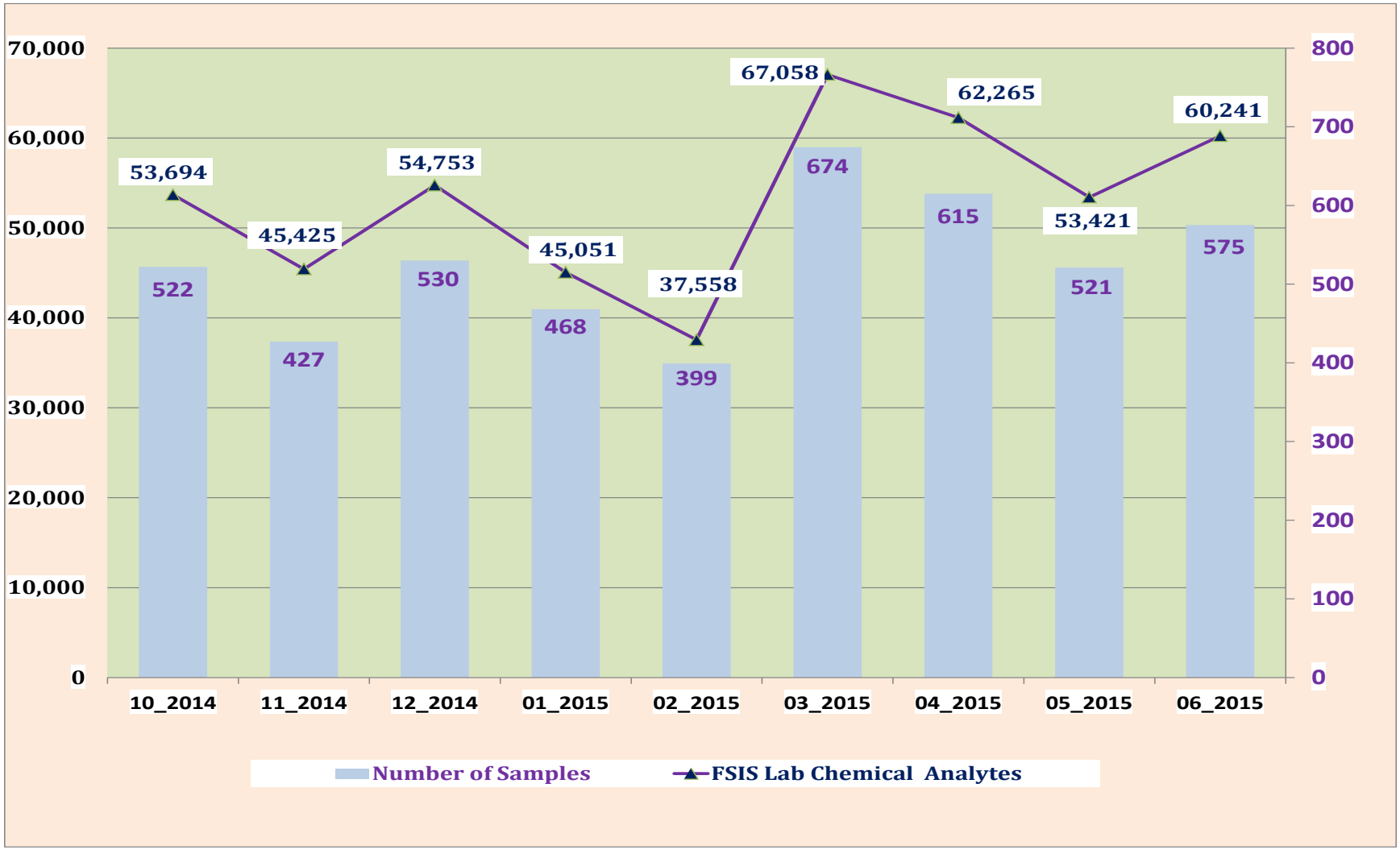
Chemical Residue	Residue Detected - Not-Violative	Residue Not Detected	Residue Detected - Violative	Total
Macrolides	-	229	-	229
Manganese	-	9	-	9
Pesticides	-	165	-	165
Phenicols	-	229	-	229
Selenium	-	1	-	1
Strontium	-	1	-	1
Sulfas	-	248	-	248
Tetracyclines	-	229	-	229
Trace Elements	-	19	-	19
Zinc	-	20	-	20
Total	**13**	**3,103**	**3**	**3,119**

Note: Based on 586 import residue samples. Multiple import residue results may be associated with the same sample.

Appendix

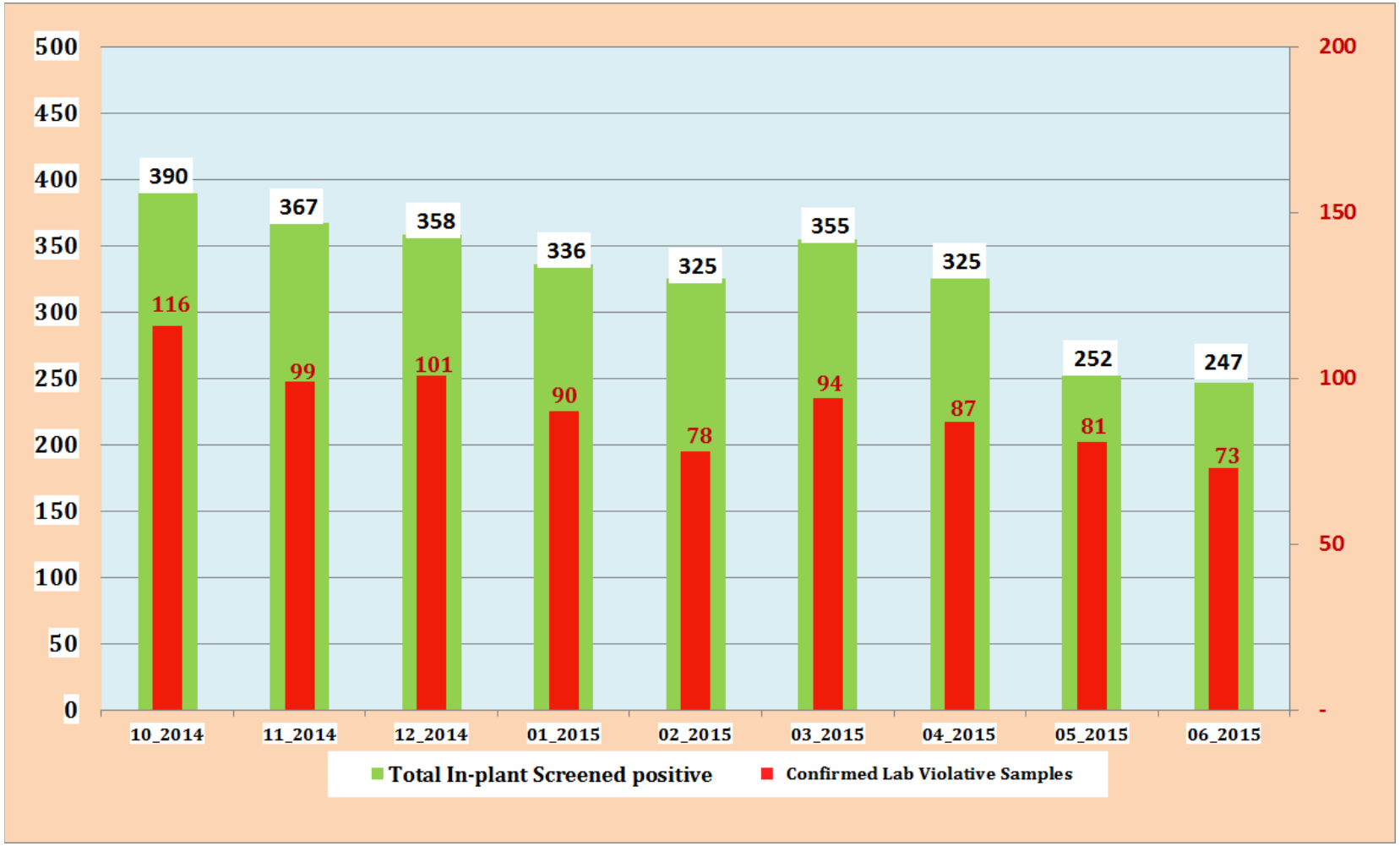
Summary of NRP Domestic Sample Data (Scheduled and Inspector-generated: KIS™ Test) (Oct. 2014–June 2015)

Figure A:[1] **Distribution of NRP Domestic Scheduled Samples by Month. Includes FSIS Lab Chemical Analytes by Month, Oct. 2014–June 2015**



[1] Number of residue domestic scheduled sample in **PURPLE**.

Figure B:[2] Distribution of NRP Inspector Generated (In-plant) Positive Screenings (KIS™ Test) and Confirmed Lab Violative Results by Month, Oct. 2014–June 2015



[2] Number of confirmed violative samples in **RED**. Multiple violative samples results may be associated with the same carcass sample.

Table 11: Distribution of NRP Inspector Generated Program (In-plant) Screenings (KIS™ Test) Residue Violative Samples, Oct. 2014–June 2015

Residue Name	Oct. 2014	Nov. 2014	Dec. 2014	Jan. 2015	Feb. 2015	Mar. 2015	Apr. 2015	May 2015	June 2015	Total
Amikacin	1	-	-	-	-	-	-	-	-	**1**
Ampicillin	1	1	-	3	2	1	4	2	1	**15**
Apramycin	-	-	-	-	-	-	-	1	-	**1**
Ciprofloxacin	1	-	-	1	4	4	1	1	1	**13**
Desethylene ciprofloxacin	-	-	-	-	-	2	-	-	-	**2**
Desfuroylceftiofur	20	17	26	30	20	25	19	21	23	**201**
Dihydrostreptomycin	-	-	-	-	1	-	-	-	-	**1**
Enrofloxacin	-	-	-	-	1	2	-	-	-	**3**
Florfenicol	10	17	6	3	1	1	8	2	4	**52**
Flunixin	8	7	9	8	4	5	6	5	5	**57**
Gamithromycin	-	-	1	-	-	-	-	-	-	**1**
Gentamycin Sulfate	4	8	2	1	-	1	2	-	-	**18**
Lincomycin	-	-	-	-	2	3	-	1	1	**7**
Neomycin	6	2	6	6	3	4	3	4	5	**39**
Oxytetracycline	1	-	5	-	1	3	1	2	1	**14**

Note: Multiple violations may be associated with one carcass.

Table 11 (Continued): Distribution of NRP Inspector Generated Program (In-plant) Screenings (KIS™ Test) Residue Violative Samples, Oct. 2014–June 2015

Residue Name	Oct. 2014	Nov. 2014	Dec. 2014	Jan. 2015	Feb. 2015	Mar. 2015	Apr. 2015	May 2015	June 2015	Total
Penicillin	24	17	24	17	17	18	22	20	10	**169**
Salbutamol	-	-	-	-	-	1	-	-	-	**1**
Spectinomycin	-	-	-	-	2	-	-	-	1	**3**
Sulfadiazine	-	-	-	-	-	1	1	-	-	**2**
Sulfadimethoxine	8	14	5	4	8	4	5	8	4	**60**
Sulfadoxine	2	-	-	1	2	-	-	-	-	**5**
Sulfamethazine	27	8	7	10	7	7	12	6	12	**96**
Sulfamethoxazole	-	1	-	1	2	6	1	2	1	**14**
Sulfamethoxypyridazine	-	-	-	-	-	-	-	-	1	**1**
Tilmicosin	3	6	5	4	-	5	2	4	3	**32**
Tulathromycin	-	-	3	1	-	-	-	-	-	**4**
Tylosin	-	1	1	-	1	1	-	2	-	**6**
Zeranol	-	-	1	-	-	-	-	-	-	**1**
Total	**116**	**99**	**101**	**90**	**78**	**94**	**87**	**81**	**73**	**819**

Note: Multiple violations may be associated with one carcass.

Table 12: Distribution of NRP Inspector Generated Program (In-plant) Screenings (KIS™ Test) Residue Violative Samples by Animal Class, Oct. 2014–June 2015

Compound	Beef Cows	Bob Veal	Bulls	Dairy Cows	Formula-fed Veal	Goats	Heavy Calves	Heifer	Lamb	Market Swine	Mature Sheep	Non Formula-fed Veal	Roaster Swine	Sows	Steers	Total
Amikacin	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	**1**
Ampicillin	-	-	-	15	-	-	-	-	-	-	-	-	-	-	-	**15**
Apramycin	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	**1**
Ciprofloxacin	1	3	2	1	-	-	3	-	-	-	-	-	-	-	3	**13**
Desethylene ciprofloxacin	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	**2**
Desfuroylceftiofur	19	19	2	149	-	1	1	1	-	-	1	-	-	-	8	**201**
Dihydrostreptomycin	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	**1**
Enrofloxacin	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	**3**
Florfenicol	12	-	5	6	-	-	11	-	-	-	-	4	-	-	14	**52**
Flunixin	6	4	1	36	-	-	4	-	-	-	-	-	-	1	5	**57**
Gamithromycin	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	**1**
Gentamycin Sulfate	1	1	1	9	-	-	1	2	-	-	-	1	-	1	1	**18**
Lincomycin	-	-	-	2	-	3	2	-	-	-	-	-	-	-	-	**7**
Neomycin	-	36	-	1	-	-	1	-	-	-	-	-	-	-	1	**39**
Oxytetracycline	5	1	1	7	-	-	-	-	-	-	-	-	-	-	-	**14**

Note: Multiple violations may be associated with one carcass.

Table 12 (Continued): Distribution of NRP Inspector Generated Program (In-plant) Screenings (KIS™ Test) Residue Violative Samples by Animal Class, Oct 2014–June 2015

Compound	Beef Cows	Bob Veal	Bulls	Dairy Cows	Formula-fed Veal	Goats	Heavy Calves	Heifer	Lamb	Market Swine	Mature Sheep	Non Formula-fed Veal	Roaster Swine	Sows	Steers	Total
Penicillin	22	4	3	107	-	-	3	2	-	1	-	-	-	25	2	**169**
Salbutamol	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	**1**
Spectinomycin	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	**3**
Sulfadiazine	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	**2**
Sulfadimethoxine	3	1	-	48	-	-	1	1	-	-	-	2	1	-	3	**60**
Sulfadoxine	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	**5**
Sulfamethazine	10	19	3	23	-	-	10	-	1	4	-	17	-	3	6	**96**
Sulfamethoxazole	-	14	-	-	-	-	-	-	-	-	-	-	-	-	-	**14**
Sulfamethoxypyridazine	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	**1**
Tilmicosin	11	-	1	12	-	-	-	4	-	-	-	-	-	-	4	**32**
Tulathromycin	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	**4**
Tylosin	2	2	-	1	-	-	-	-	-	-	-	-	1	-	-	**6**
Zeranol	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	**1**
Total	**92**	**117**	**19**	**424**	**1**	**7**	**37**	**10**	**1**	**6**	**1**	**24**	**2**	**31**	**47**	**819**

Note: Multiple violations may be associated with one carcass.