

**NATIONAL MILK DRUG RESIDUE DATABASE
FISCAL YEAR 2025 ANNUAL REPORT**

October 1, 2024 – September 30, 2025

Submitted to:

Office of the Center Director/Senior Science Advisor Staff

Human Foods Program (HFP)

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**NATIONAL MILK DRUG RESIDUE DATABASE
FISCAL YEAR 2025 ANNUAL REPORT
October 1, 2024 – September 30, 2025**

INTRODUCTION

The National Milk Drug Residue Database (NMDRD) is a reporting program to compile data regarding the antibiotic testing of milk by the dairy industry. Although the NMDRD is a voluntary industry reporting program, mandatory reporting is required by Regulatory Agencies under the National Conference on Interstate Milk Shipments (NCIMS). Data are reported on the extent of the national testing activities, the analytical methods used, the kind and extent of the animal drug residues identified, and the amount of contaminated milk that was removed from the human food supply. This database includes cow milk, Grade "A" as well as non-Grade "A", which is commonly known as manufacturing grade milk. Grade "A" milk represents approximately 99% of the milk supply in the United States and is regulated through the NCIMS by the Regulatory Agencies. Manufacturing grade milk is under the direction of the Regulatory Agencies in the states where it is produced and may be subject to the standards recommended by the United States Department of Agriculture (USDA). Data reported to the NMDRD are for educational and analytical purposes and are not intended or suitable for regulatory action or follow up.

BACKGROUND

The NCIMS is a voluntary organization directed and controlled by member States to promote the availability of a safe, high quality milk supply. The Food and Drug Administration (FDA) and the NCIMS through their collaborative efforts have developed a cooperative, federal-state program (the Grade "A" Interstate Milk Shippers Program) to ensure the sanitary quality of Grade "A" milk and milk products shipped in interstate commerce. During the 1991 meeting of the NCIMS, the Conference authorized a national program to compile the results of milk drug residue testing by industry and State Regulatory Agencies.

Subsequently, a competitively selected contract was awarded to GLH, Inc. as an independent third party to develop the NMDRD under contract to the FDA. The database design was developed in consultation with a project advisory group with members from the FDA and a NCIMS committee representing dairy producers, dairy processors, USDA, State Regulatory Agencies, and academia. The database was established to promote maximum voluntary participation by the dairy industry in reporting their testing results, without compromising any confidential data. The information submitted to the database is not specific to individual firms, or states, but instead consists of numbers of milk drug residue tests organized by categories including test kit method, drug family, and sample type. It is important to recognize that the samples and tests reported do not necessarily represent one hundred percent (100%) of the milk supply from every State.

GLH informed the FDA that they would not be bidding on the prospective proposal for the NMDRD third party contractor. On June 6, 2023, the FDA announced that JIFSAN was selected as the new NMDRD Third party contractor.

GLH, Inc. has supported the FDA and the NCIMS in the design, management, and operation of

the NMDRD since the national database was approved by the delegates during the 1991 NCIMS. The dedicated work done by GLH, Inc. has been outstanding and much appreciated.

FY 2025 ACTIVITIES

Because of the high amount of turnover in the state dairy programs, the JIFSAN team has spent a considerable amount of time answering questions, educating employees one-on-one of the importance of reporting to this database and how to report to this database.

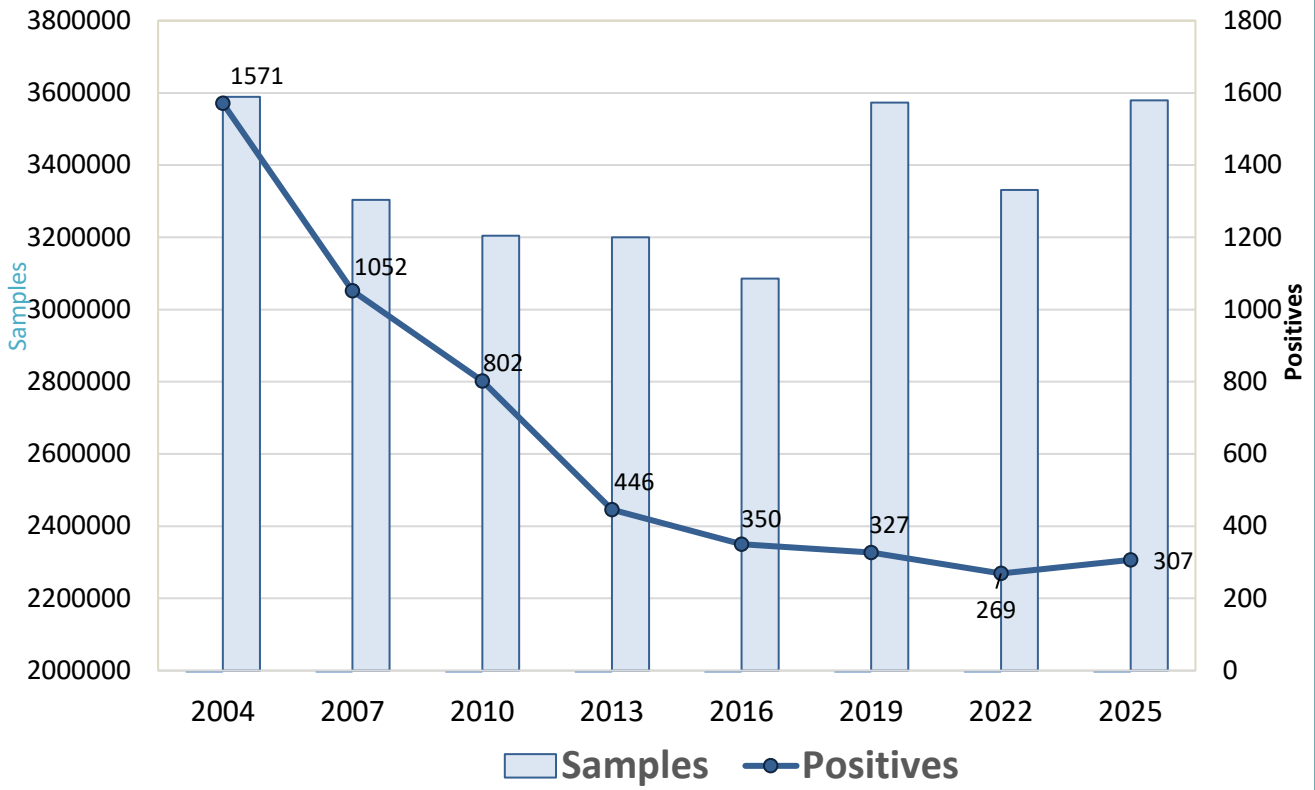
As a result of this high turnover, JIFSAN continually updated the state dairy program contact list. JIFSAN also sent out reminders that the Drug Residue Test Methods list: “Code and Status by Drug Family” had been updated and the list could be found on the NMDRD Website at <https://www.nmdrd.com>.

Through working with the employees in state dairy programs, JIFSAN realized the need to update the “NMDRD Report Form with Instructions and Definitions” found on the NMDRD Website at <https://www.nmdrd.com>. This was completed in December 2024.

This third-party database has been very successful in documenting the hard work done by the dairy industry to prevent drug residues in our milk supply, thus helping to meet the NCIMS standard as “the Safest Possible Milk Supply for All the People.” The two charts that are included below represent data taken from NMDRD Annual Reports over the last 22 years. The reduction of Bulk Milk Pickup Tanker sample positives and the resulting reduction in test positive milk represent a commendable achievement by the dairy industry and that story is told through the NMDRD.

Bulk Milk Pickup Total Samples and Positives

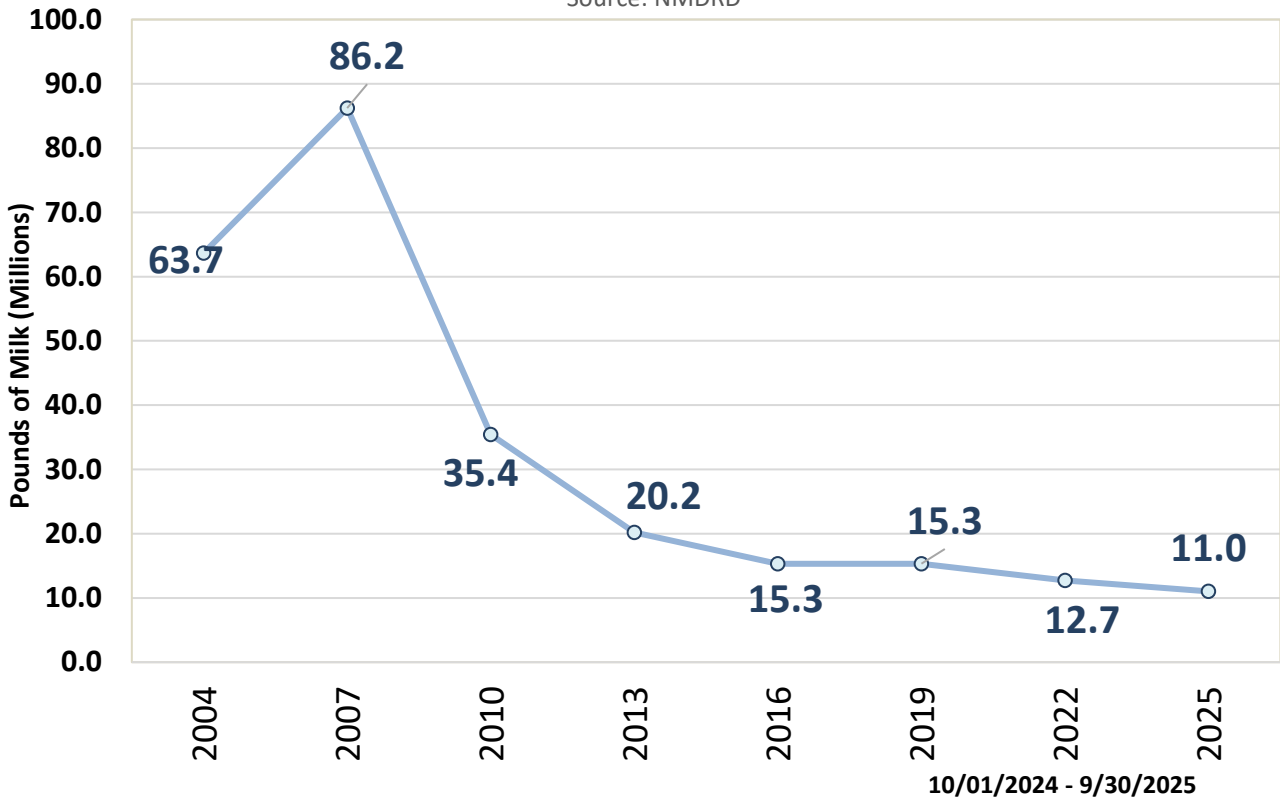
Source: NMDRD



Pounds of Milk Properly Disposed (Millions)

2004-2025

Source: NMDRD



10/01/2024 - 9/30/2025

SAMPLES AND TESTS REPORTED

This report presents summary data on samples and tests conducted during the Fiscal Year 2025 (October 1, 2024 to September 30, 2025). Fifty (50) States, Puerto Rico and two (2) Third Party Certifiers (TPC) authorized under the International Certification Program (ICP) submitted data for this report. The contractor greatly appreciates the cooperation of all the data reporters who contributed to this fiscal year's report.

The Grade "A" Pasteurized Milk Ordinance (PMO), the regulations which govern Regulatory Agencies in the implementation and enforcement of their Grade "A" milk safety programs, requires that all bulk milk pickup tankers and/or all raw milk supplies that have not been transported in bulk milk pickup tankers - regardless of final use - be sampled and analyzed for animal drug residues before the milk is processed. Any bulk milk pickup tanker and/or all raw milk supply that has not been transported in a bulk milk pickup tanker that is found positive is rejected for human consumption.

During October through September of FY 2025, **3,579,601** samples were analyzed for animal drug residues. Of these samples **307** were positive for a drug residue. A total of **3,807,295** tests were reported on the samples for Four (4) different groups or families of drugs. Since some samples are analyzed for more than one (1) drug residue, the number of tests conducted is greater than the number of samples. During FY 2025, a total of **328** tests were reported as positive for a drug residue. Fifteen (15) testing methods were used to analyze the samples for drug residues. Key residue findings, by test method and sample source, can be found in Tables 8-1 to 8-8 of this report.

SAMPLE RESULTS

A SAMPLE is defined as representing a load or lot of milk sampled and analyzed. Samples may include, for example, milk collected from a bulk milk pickup tanker, a raw milk supply that has not been transported in a bulk milk pickup tanker, a producer's bulk milk tank, a milk transport tanker, a plant silo, or a pasteurized finished product. Table 1 shows the results of the samples tested by source.

Data are reported by four (4) SOURCES OF SAMPLES:

1. Bulk Milk Pickup Tanker and/or Raw Milk Supply That Has Not Been Transported in a Bulk Milk Pickup Tanker - bulk raw milk from dairy farm(s).
2. Pasteurized Fluid Milk and Milk Products - after pasteurization, finished product in package form or bulk. This term includes milk products such as milk and cream.
3. Producer - raw milk obtained from the bulk tank/silo from a dairy farm. Samples are reported by the permitting State, rather than by the analyzing State.
4. Other - milk from milk plant tanks/silos, milk transport tankers, etc.

A POSITIVE result, as used in this report, means that the sample was found to be a Confirmed Positive as defined in the PMO, latest revision, Appendix N; or the owner of the Presumptive Positive milk as defined in the PMO, latest version, Appendix N may reject the milk without further testing and must follow the conditions outlined in the PMO, latest revision Appendix N.

The DISPOSITION per PMO column represents the amount of milk contained in the tanker, raw milk supply that has not been transported in a bulk milk pickup tanker, tank/silo or lot found to be positive and disposed of in accordance with the PMO and/or applicable State regulations.

Table 1 -- Sample Results

Sample	Total Samples	Source of Number Positive	Percent Positive	Disposition per PMO (Pounds)
Bulk Milk Pickup Tanker	3,267,554	206	0.006%	10,708,000
Pasteurized Fluid Milk and Milk Products	32,995	1	0.003%	25,000
Producer	229,245	97	0.042%	224,000
Other	49,807	3	0.006%	64,000
TOTALS	3,579,601	307	*	11,021,000

The asterisk (*) notes that a summary of the percent positive cannot be provided because there is no uniformity in terms of sampling in the four (4) categories. For example, the PMO sets forth specific sampling requirements for Beta lactams testing as follows:

1. Bulk Milk Pickup Tanker Samples and/or Raw Milk Supplies That Have Not Been Transported in a Bulk Milk Pickup Tanker -- samples are taken on receipt of every tanker load and/or raw milk supply that has not been transported in a bulk milk pickup tanker at a milk receiving facility;
2. Pasteurized Fluid Milk and Milk Products -- a minimum of four (4) samples in at least four (4) separate months, except when three (3) months show a month containing two (2) sampling dates separated by at least twenty (20) days, shall be tested for each finished milk or milk product from each milk plant during any consecutive six (6) months;
3. Producer -- each producer shall be tested at least four (4) times in at least four (4) separate months, except when three (3) months show a month containing two (2) sampling dates separated by at least twenty (20) days, during any consecutive six (6) months; and
4. Other -- samples are conducted on a random basis.

Table 2 presents these results in greater detail and indicates the number of samples conducted by industry and by Regulatory Agencies. Industry samples are taken by milk plants, receiving and transfer stations, and marketing groups or cooperatives. Industry sampling and testing may be conducted to meet the industry requirements of Appendix N of the PMO, which sets forth testing and reporting requirements for animal drug residues, or for quality control purposes. Regulatory samples are taken by Regulatory Agencies.

Table 2 -- Industry and Regulatory Samples

Source of Sample	Number of Industry Samples	Number of Positive Industry Samples	Number of Regulatory Samples	Number of Positive Regulatory Samples	Total Samples	Total Positive Samples	Total Percent Positive	Disposition Per PMO (Pounds)
GRADE "A"								
Bulk Milk Pickup Tanker	3,207,583	203	7,901	1	3,215,484	204	0.006%	10,606,000
Pasteurized Fluid Milk and Milk Products	364	0	32,012	1	32,376	1	0.003%	25,000
Producer	170,844	71	47,360	12	218,204	83	0.038%	224,000
Other	40,606	0	7,429	2	48,035	2	0.004%	64,000
NON-GRADE "A"								
Bulk Milk Pickup Tanker ¹	51,933	2	137	0	52,070	2	0.004%	102,000
Pasteurized Fluid Milk and Milk Products	85	0	534	0	619	0	0.000%	0
Producer	10,827	14	214	0	11,041	14	0.127%	0
Other	1,622	0	150	1	1,772	1	0.056%	0
TOTALS	3,483,864	290	95,737	17	3,579,601	307	*	11,021,000²

¹ It is a common practice in some states, including two large milk producing states, that bulk milk pickup tankers collect milk from both Grade "A" and non-Grade "A" milk producers on the same tanker. Then, these loads are delivered to non-Grade "A" processing facilities. Because of this commingling of the two grades of milk, all data related to these loads are reported under non-Grade "A".

² Note that this represents 0.005% of the total milk supply of the United States with an annual production of 226 billion pounds.

* See Table 1 for explanation

TESTS CONDUCTED

An objective of the NMDRD is to record every test run on each sample analyzed. Since some samples are analyzed for more than one (1) drug residue, the number of tests conducted (3,807,295) is greater than the number of samples (3,579,601). To avoid duplicate reporting of samples, the number of samples analyzed is reported separately from the number of tests run in the data base.

Table 3 presents summary results of the number of tests which were conducted during October 1, 2024 to September 31, 2025. The term, "validated test," as used in this report, is a test used for the screening of milk for drug residue, which has been evaluated by FDA in accordance with the standards established for the evaluation of these types of tests, and found acceptable by the NCIMS in accordance with Appendix N of the PMO. Also refer to the definition of NCIMS Accepted Drug Residue Test Methods in the PMO Appendix N (latest revision). In addition, FDA validated drug residue detection procedures for screening and quantification of drug residues in milk may be used. Table 3A presents summary results using validated tests and Table 3B presents summary results using non-validated tests.

Table 3 -- Tests Conducted by Sample Sources

Source of Sample	Total Tests	Number of Positive Tests	Percent Positive
Bulk Milk Pickup Tanker	3,488,952	226	0.006%
Pasteurized Fluid Milk and Milk Products	33,213	1	0.003%
Producer	235,321	98	0.042%
Other	49,809	3	0.006%
TOTALS	3,807,295	328	*

* See Table 1 for explanation

Table 3A -- Validated Tests Conducted

Source of Sample	Total Tests	Number of Positive Tests	Percent Positive
Bulk Milk Pickup Tanker	3,488,891	226	0.006%
Pasteurized Fluid Milk and Milk Products	33,213	1	0.003%
Producer	235,321	98	0.042%
Other	49,809	3	0.006%
TOTALS	3,807,234	328	*

* See Table 1 for explanation

Table 3B -- Non-Validated Tests Conducted

Source of Sample	Total Tests	Number of Positive Tests	Percent Positive
Bulk Milk Pickup Tanker	61	0	0.000%
Pasteurized Fluid Milk and Milk Products	0	0	0.000%
Producer	0	0	0.000%
Other	0	0	0.000%
TOTALS	61	0	*

* See Table 1 for explanation

Table 4 presents additional details in terms of the tests conducted by industry and by Regulatory Agencies. Tables 4A and 4B present these data by validated and non-validated tests.

Table 4 -- Tests Conducted by Industry and Regulatory Agencies

Source of Sample	Number of Industry Tests	Number of Positive Industry Tests	Number of Regulatory Tests	Number of Positive Regulatory Tests	Total Tests	Total Positive Tests	Total Percent Positive
GRADE "A"							
Bulk Milk Pickup Tanker	3,428,981	223	7,901	1	3,436,882	224	0.007%
Pasteurized Fluid Milk and Milk Products	365	0	32,212	1	32,577	1	0.003%
Producer	176,140	71	47,366	13	223,506	84	0.038%
Other	40,606	0	7,431	2	48,037	2	0.004%
NON-GRADE "A"							
Bulk Milk Pickup Tanker ¹	51,933	2	137	0	52,070	2	0.004%
Pasteurized Fluid Milk and Milk Products	102	0	534	0	636	0	0.000%
Producer	11,601	14	214	0	11,815	14	0.118%
Other	1,622	0	150	1	1,772	1	0.056%
TOTALS	3,711,350	310	95,945	18	3,807,295	328	*

¹ It is a common practice in some states, including two large milk producing states, that bulk milk pickup tankers collect milk from both Grade "A" and non-Grade "A" milk producers on the same tanker. Then, these loads are delivered to non-Grade "A" processing facilities. Because of this commingling of the two grades of milk, all data related to these loads are reported under non-Grade "A".

* See Table 1 for explanation

Table 4A -- Validated Tests Conducted by Industry and Regulatory Agencies

Source of Sample	Number of Industry Tests	Number of Positive Industry Tests	Number of Regulatory Tests	Number of Positive Regulatory Tests	Total Tests	Total Positive Tests	Total Percent Positive
GRADE "A"							
Bulk Milk Pickup Tanker	3,428,920	223	7,901	1	3,436,821	224	0.007%
Pasteurized Fluid Milk and Milk Products	365	0	32,212	1	32,577	1	0.003%
Producer	176,140	71	47,366	13	223,506	84	0.038%
Other	40,606	0	7,431	2	48,037	2	0.004%
NON-GRADE "A"							
Bulk Milk Pickup Tanker ¹	51,933	2	137	0	52,070	2	0.004%
Pasteurized Fluid Milk and Milk Products	102	0	534	0	636	0	0.000%
Producer	11,601	14	214	0	11,815	14	0.118%
Other	1,622	0	150	1	1,772	1	0.056%
TOTALS	3,711,289	310	95,945	18	3,807,234	328	*

¹ It is a common practice in some states, including two large milk producing states, that bulk milk pickup tankers collect milk from both Grade "A" and non-Grade "A" milk producers on the same tanker. Then, these loads are delivered to non-Grade "A" processing facilities. Because of this commingling of the two grades of milk, all data related to these loads are reported under non-Grade "A".

* See Table 1 for explanation

Table 4B -- Non-Validated Tests Conducted by Industry and Regulatory Agencies

Source of Sample	Number of Industry Tests	Number of Positive Industry Tests	Number of Regulatory Tests	Number of Positive Regulatory Tests	Total Tests	Total Positive Tests	Total Percent Positive
GRADE "A"							
Bulk Milk Pickup Tanker	61	0	0	0	61	0	0.000%
Pasteurized Fluid Milk and Milk Products	0	0	0	0	0	0	0.000%
Producer	0	0	0	0	0	0	0.000%
Other	0	0	0	0	0	0	0.000%
NON-GRADE "A"							
Bulk Milk Pickup Tanker ¹	0	0	0	0	0	0	0.000%
Pasteurized Fluid Milk and Milk Products	0	0	0	0	0	0	0.000%
Producer	0	0	0	0	0	0	0.000%
Other	0	0	0	0	0	0	0.000%
TOTALS	61	0	0	0	61	0	*

¹ It is a common practice in some states, including two large milk producing states, that bulk milk pickup tankers collect milk from both Grade "A" and non-Grade "A" milk producers on the same tanker. Then, these loads are delivered to non-Grade "A" processing facilities. Because of this commingling of the two grades of milk, all data related to these loads are reported under non-Grade "A".

* See Table 1 for explanation

Table 5 shows the number of tests conducted by the family of drugs. Tables 5A and 5B present these data by validated and non-validated tests.

Table 5 -- Number of Tests Conducted by Family/Drug

Family/Drug	Total Tests	Total Positive
BETA lactams	3,585,254	325
MACROLIDES	61	0
SULFONAMIDES	111,902	3
TETRACYCLINES	110,078	0
TOTALS	3,807,295	328

Table 5A -- Number of Validated Tests Conducted by Family/Drug

Family/Drug	Total Tests	Total Positive
BETA lactams	3,585,254	325
SULFONAMIDES	111,902	3
TETRACYCLINES	110,078	0
TOTALS	3,807,234	328

Table 5B -- Number of Non-Validated Tests Conducted by Family/Drug

Family/Drug	Total Tests	Total Positive
MACROLIDES	61	0
TOTALS	61	0

Table 6 presents details on the tests used, and the total test numbers are the same as shown in Table 5. The test numbers for each drug test method are arranged by test method within each drug family. Test methods with the largest use to detect drug residues were: Charm 3 SL3 used for **1,847,970** tests; Charm SL Beta lactams used for **1,136,159** tests; Delvotest P 5 Pack used for **265,265** tests; Charm BL30SEC used for **123,015** tests; Charm Trio used for **105,421** tests. Please note that the Charm TRIO – Beta lactams, the Charm TRIO – Sulfonamides, and the Charm TRIO - Tetracyclines methods are highlighted in the following tables since they are approved for screening purposes only and not for confirmation.

Table 6 -- Number of Tests by Method by Family/Drug

Tests Used by Family/Drug	Number of Tests	Number Positive	Percent Positive
BETA lactams			
Charm 3 SL3	1,847,970	133	0.007%
Charm BL30SEC	123,015	9	0.007%
Charm BsDA**	32,879	3	0.009%
Charm SL Beta lactams	1,136,159	58	0.005%
Charm TRIO - Beta lactams	105,421	2	0.002%
Delvotest P 5 Pack**	265,265	109	0.041%
Delvotest P Mini - Beta lactams**	7,828	0	0.000%
Green Book Micro - Beta lactams	3,216	0	0.000%
IDEXX New SNAP Beta-Lactam	63,501	11	0.017%
MACROLIDES			
Charm II Tablet Sequential - Macrolides**	61	0	0.000%
SULFONAMIDES			
Charm ROSA Sulfonamides	6,481	3	0.046%
Charm TRIO - Sulfonamides	105,421	0	0.000%
TETRACYCLINES			
Charm ROSA Tetracycline-SL(Dil. Conf.) Orange	3,737	0	0.000%
Charm TRIO - Tetracyclines	105,421	0	0.000%
IDEXX SNAP Tetracycline (Dil. Conf.)	920	0	0.000%
TOTALS	3,807,295	328	*

* See Table 1 for explanation

** Non-Validated Test Method

** NCIMS evaluated these kits for detection of Beta lactams; however, unless the kits are used with Beta lactamase, they do not specifically identify the presence of Beta lactams. The reporting of these tests does not make it possible to separate the use/nonuse of Beta lactamase. A finding of "Not Found" would indicate the test did not detect any inhibitor for which it is sensitive, including, but not limited to, antibiotics or non-specific inhibitors such as sanitizers. See technical bulletin on the contractor's website at: <https://www.nmrd.com/>

Table 6A shows a comparison of tests conducted using Validated and Non-Validated test methods for Sulfonamides and Tetracyclines.

Table 6A -- Comparison of Validated and Non-Validated Tests for Sulfonamides and Tetracyclines

Tests By Method by Family/Drug	Number of Tests	Number Positive	Percent Positive
VALIDATED FOR SULFONAMIDES			
Charm ROSA Sulfonamides	6,481	3	0.046%
Charm TRIO - Sulfonamides	105,421	0	0.000%
VALIDATED FOR TETRACYCLINES			
Charm ROSA Tetracycline-SL(Dil. Conf.) Orange	3,737	0	0.000%
Charm TRIO - Tetracyclines	105,421	0	0.000%
IDEXX SNAP Tetracycline (Dil. Conf.)	920	0	0.000%
TOTALS	221,980	3	*

* See Table 1 for explanation

Tables 7-1 to 7-8 present additional details of the testing conducted. These tables show the testing by the family of drugs and present results in terms of Grade "A" and Non-Grade "A" testing.

Table 7-1 -- Grade "A" Bulk Milk Pickup Tanker Testing

Family/Drug	Number of Industry Tests	Number of Positive Industry Tests	Number of Regulatory Tests	Number of Positive Regulatory Tests	Total Tests	Total Positive Tests
BETA lactams	3,207,002	220	7,901	1	3,214,903	221
MACROLIDES	61	0	0	0	61	0
SULFONAMIDES	111,898	3	0	0	111,898	3
TETRACYCLINES	110,020	0	0	0	110,020	0
TOTALS	3,428,981	223	7,901	1	3,436,882	224

Table 7-2 -- Grade "A" Pasteurized Fluid Milk and Milk Products Testing

Family/Drug	Number of Industry Tests	Number of Positive Industry Tests	Number of Regulatory Tests	Number of Positive Regulatory Tests	Total Tests	Total Positive Tests
BETA lactams	365	0	32,212	1	32,577	1
TOTALS	365	0	32,212	1	32,577	1

Table 7-3 -- Grade "A" Producer Testing

Family/Drug	Number of Industry Tests	Number of Positive Industry Tests	Number of Regulatory Tests	Number of Positive Regulatory Tests	Total Tests	Total Positive Tests
BETA lactams	176,078	71	47,366	13	223,444	84
SULFONAMIDES	4	0	0	0	4	0
TETRACYCLINES	58	0	0	0	58	0
TOTALS	176,140	71	47,366	13	223,506	84

Table 7-4 -- Grade "A" Other Testing (Milk from Milk plant tanks/silos, milk transport tankers, etc.)

Family/Drug	Number of Industry Tests	Number of Positive Industry Tests	Number of Regulatory Tests	Number of Positive Regulatory Tests	Total Tests	Total Positive Tests
BETA lactams	40,606	0	7,431	2	48,037	2
TOTALS	40,606	0	7,431	2	48,037	2

Table 7-5 -- Non-Grade "A" Bulk Milk Pickup Tanker Testing

Family/Drug	Number of Industry Tests	Number of Positive Industry Tests	Number of Regulatory Tests	Number of Positive Regulatory Tests	Total Tests	Total Positive Tests
BETA lactams	51,933	2	137	0	52,070	2
TOTALS	51,933	2	137	0	52,070	2

Table 7-6 -- Non-Grade "A" Pasteurized Fluid Milk and Milk Products Testing

Family/Drug	Number of Industry Tests	Number of Positive Industry Tests	Number of Regulatory Tests	Number of Positive Regulatory Tests	Total Tests	Total Positive Tests
BETA lactams	102	0	534	0	636	0
TOTALS	102	0	534	0	636	0

Table 7-7 -- Non-Grade "A" Producer Testing

Family/Drug	Number of Industry Tests	Number of Positive Industry Tests	Number of Regulatory Tests	Number of Positive Regulatory Tests	Total Tests	Total Positive Tests
BETA lactams	11,601	14	214	0	11,815	14
TOTALS	11,601	14	214	0	11,815	14

Table 7-8 -- Non-Grade "A" Other Testing (Milk from Milk plant tanks/silos, milk transport tankers, etc.)

Family/Drug	Number of Industry Tests	Number of Positive Industry Tests	Number of Regulatory Tests	Number of Positive Regulatory Tests	Total Tests	Total Positive Tests
BETA lactams	1,622	0	150	1	1,772	1
TOTALS	1,622	0	150	1	1,772	1

Tables 8-1 to 8-8 present details on the number of tests conducted by industry and by Regulatory Agencies. The data are arranged by test within each family/drug and present results in terms of sample type and Grade "A" and Non-Grade "A" testing. Please reference the latest revision of M-a-98 for tests that are approved/validated or acceptable for testing milk and milk products for regulatory purposes.

Table 8-1 -- Number of Tests by Method by Family/Drug Grade "A" Bulk Milk Pickup Tanker

Tests Used by Family/Drug	Number of Industry Tests	Number of Positive Industry Tests	Number of Regulatory Tests	Number of Positive Regulatory Tests	Total Tests	Total Positive Tests	Percent Positive
BETA lactams							
Charm 3 SL3	1,797,386	131	432	1	1,797,818	132	0.007%
Charm BL30SEC	111,959	7	0	0	111,959	7	0.006%
Charm BsDA**	21,826	2	0	0	21,826	2	0.009%
Charm SL Beta lactams	1,085,457	51	6,869	0	1,092,326	51	0.005%
Charm TRIO - Beta lactams	105,421	2	0	0	105,421	2	0.002%
Delvotest P 5 Pack**	19,719	21	582	0	20,301	21	0.103%
Delvotest P Mini - Beta lactams**	4,383	0	0	0	4,383	0	0.000%
Green Book Micro - Beta lactams	3,216	0	0	0	3,216	0	0.000%
IDEXX New SNAP Beta-Lactam	57,635	6	18	0	57,653	6	0.010%
Macrolides							
Charm II Tablet Sequential - Macrolides**	61	0	0	0	61	0	0.000%
Sulfonamides							
Charm ROSA Sulfonamides	6,477	3	0	0	6,477	3	0.046%
Charm TRIO - Sulfonamides	105,421	0	0	0	105,421	0	0.000%
Tetracyclines							
Charm ROSA Tetracycline-SL(Dil. Conf.) Orange	3,679	0	0	0	3,679	0	0.000%
Charm TRIO - Tetracyclines	105,421	0	0	0	105,421	0	0.000%
IDEXX SNAP Tetracycline (Dil. Conf.)	920	0	0	0	920	0	0.000%
TOTALS	3,428,981	223	7,901	1	3,436,882	224	0.007%

** Non-Validated Test Method

** NCIMS evaluated these kits for detection of Beta lactams; however, unless the kits are used with Beta lactamase, they do not specifically identify the presence of Beta lactams. The reporting of these tests does not make it possible to separate the use/nonuse of Beta lactamase. A finding of "Not Found" would indicate the test did not detect any inhibitor for which it is sensitive, including, but not limited to, antibiotics or non-specific inhibitors such as sanitizers. See technical bulletin on the contractor's website at: <https://www.nmrd.com/>

Table 8-2 -- Number of Tests by Method by Family/Drug Grade "A" Pasteurized Fluid Milk and Milk Products

Tests Used by Family/Drug	Number of Industry Tests	Number of Positive Industry Tests	Number of Regulatory Tests	Number of Positive Regulatory Tests	Total Tests	Total Positive Tests	Percent Positive
BETA lactams							
Charm 3 SL3 ³	0	0	30	0	30	0	0.000%
Charm BsDA ⁺⁺	0	0	1,520	0	1,520	0	0.000%
Charm SL Beta lactams ³	9	0	1,779	0	1,788	0	0.000%
Delvotest P 5 Pack ⁺⁺	147	0	28,425	1	28,572	1	0.003%
Delvotest P Mini - Beta lactams ⁺⁺	105	0	0	0	105	0	0.000%
IDEXX New SNAP Beta-Lactam ³	104	0	458	0	562	0	0.000%
TOTALS	365	0	32,212	1	32,577	1	0.003%

⁺⁺ NCIMS evaluated these kits for detection of Beta lactams; however, unless the kits are used with Beta lactamase, they do not specifically identify the presence of Beta lactams. The reporting of these tests does not make it possible to separate the use/nonuse of Beta lactamase. A finding of "Not Found" would indicate the test did not detect any inhibitor for which it is sensitive, including, but not limited to, antibiotics or non-specific inhibitors such as sanitizers. See technical bulletin on the contractor's website at: <https://www.nmrd.com/>

³ This test is not approved for official NCIMS Regulatory Testing of Pasteurized Milk and Milk Products, see M-a-98.

Table 8-3 -- Number of Tests by Method by Family/Drug Grade "A" Producer Testing

Tests Used by Family/Drug	Number of Industry Tests	Number of Positive Industry Tests	Number of Regulatory Tests	Number of Positive Regulatory Tests	Total Tests	Total Positive Tests	Percent Positive
BETA lactams							
Charm 3 SL3	2,102	0	1,968	1	4,070	1	0.025%
Charm BsDA ⁺⁺	8,075	1	151	0	8,226	1	0.012%
Charm SL Beta lactams	4,230	6	2,366	0	6,596	6	0.091%
Delvotest P 5 Pack ⁺⁺	157,446	61	42,376	12	199,822	73	0.037%
Delvotest P Mini - Beta lactams ⁺⁺	1,985	0	491	0	2,476	0	0.000%
IDEXX New SNAP Beta-Lactam	2,240	3	14	0	2,254	3	0.133%
Sulfonamides							
Charm ROSA Sulfonamides	4	0	0	0	4	0	0.000%
Tetracyclines							
Charm ROSA Tetracycline-SL(Dil. Conf.) Orange	58	0	0	0	58	0	0.000%
TOTALS	176,140	71	47,366	13	223,506	84	0.038%

⁺⁺ NCIMS evaluated these kits for detection of Beta lactams; however, unless the kits are used with Beta lactamase, they do not specifically identify the presence of Beta lactams. The reporting of these tests does not make it possible to separate the use/nonuse of Beta lactamase. A finding of "Not Found" would indicate the test did not detect any inhibitor for which it is sensitive, including, but not limited to, antibiotics or non-specific inhibitors such as sanitizers. See technical bulletin on the contractor's website at: <https://www.nmrd.com/>

Table 8-4 -- Number of Tests by Method by Family/Drug Grade "A" Other Testing (Milk from Milk plant tanks/silos, milk transport tankers, etc.)

Tests Used by Family/Drug	Number of Industry Tests	Number of Positive Industry Tests	Number of Regulatory Tests	Number of Positive Regulatory Tests	Total Tests	Total Positive Tests	Percent Positive
BETA lactams							
Charm 3 SL3	26,659	0	243	0	26,902	0	0.000%
Charm BsDA**	0	0	130	0	130	0	0.000%
Charm SL Beta lactams	12,661	0	1,833	0	14,494	0	0.000%
Delvotest P 5 Pack**	131	0	5,024	0	5,155	0	0.000%
Delvotest P Mini - Beta lactams**	0	0	51	0	51	0	0.000%
IDEXX New SNAP Beta-Lactam	1,155	0	150	2	1,305	2	0.153%
TOTALS	40,606	0	7,431	2	48,037	2	0.004%

** NCIMS evaluated these kits for detection of Beta lactams; however, unless the kits are used with Beta lactamase, they do not specifically identify the presence of Beta lactams. The reporting of these tests does not make it possible to separate the use/nonuse of Beta lactamase. A finding of "Not Found" would indicate the test did not detect any inhibitor for which it is sensitive, including, but not limited to, antibiotics or non-specific inhibitors such as sanitizers. See technical bulletin on the contractor's website at: <https://www.nmdrd.com/>

Table 8-5 -- Number of Tests by Method by Family/Drug Non-Grade "A" Bulk Milk Pickup Tanker

Tests Used by Family/Drug	Number of Industry Tests	Number of Positive Industry Tests	Number of Regulatory Tests	Number of Positive Regulatory Tests	Total Tests	Total Positive Tests	Percent Positive
BETA lactams							
Charm 3 SL3	18,817	0	131	0	18,948	0	0.000%
Charm BL30SEC	11,056	2	0	0	11,056	2	0.018%
Charm SL Beta lactams	19,831	0	0	0	19,831	0	0.000%
Delvotest P 5 Pack**	8	0	6	0	14	0	0.000%
Delvotest P Mini - Beta lactams**	753	0	0	0	753	0	0.000%
IDEXX New SNAP Beta-Lactam	1,468	0	0	0	1,468	0	0.000%
TOTALS	51,933	2	137	0	52,070	2	0.004%

** NCIMS evaluated these kits for detection of Beta lactams; however, unless the kits are used with Beta lactamase, they do not specifically identify the presence of Beta lactams. The reporting of these tests does not make it possible to separate the use/nonuse of Beta lactamase. A finding of "Not Found" would indicate the test did not detect any inhibitor for which it is sensitive, including, but not limited to, antibiotics or non-specific inhibitors such as sanitizers. See technical bulletin on the contractor's website at: <https://www.nmdrd.com/>

Table 8-6 -- Number of Tests by Method by Family/Drug Non-Grade "A" Pasteurized Fluid Milk and Milk Products

Tests Used by Family/Drug	Number of Industry Tests	Number of Positive Industry Tests	Number of Regulatory Tests	Number of Positive Regulatory Tests	Total Tests	Total Positive Tests	Percent Positive
BETA lactams							
Delvotest P 5 Pack**	102	0	534	0	636	0	0.000%
TOTALS	102	0	534	0	636	0	0.000%

** NCIMS evaluated these kits for detection of Beta lactams; however, unless the kits are used with Beta lactamase, they do not specifically identify the presence of Beta lactams. The reporting of these tests does not make it possible to separate the use/nonuse of Beta lactamase. A finding of "Not Found" would indicate the test did not detect any inhibitor for which it is sensitive, including, but not limited to, antibiotics or non-specific inhibitors such as sanitizers. See technical bulletin on the contractor's website at: <https://www.nmrd.com/>

Table 8-7 -- Number of Tests by Method by Family/Drug Non-Grade "A" Producer Testing

Tests Used by Family/Drug	Number of Industry Tests	Number of Positive Industry Tests	Number of Regulatory Tests	Number of Positive Regulatory Tests	Total Tests	Total Positive Tests	Percent Positive
BETA lactams							
Charm BsDA**	1,177	0	0	0	1,177	0	0.000%
Charm SL Beta lactams	0	0	16	0	16	0	0.000%
Delvotest P 5 Pack**	10,105	14	198	0	10,303	14	0.136%
Delvotest P Mini - Beta lactams**	60	0	0	0	60	0	0.000%
IDEXX New SNAP Beta-Lactam	259	0	0	0	259	0	0.000%
TOTALS	11,601	14	214	0	11,815	14	0.118%

** NCIMS evaluated these kits for detection of Beta lactams; however, unless the kits are used with Beta lactamase, they do not specifically identify the presence of Beta lactams. The reporting of these tests does not make it possible to separate the use/nonuse of Beta lactamase. A finding of "Not Found" would indicate the test did not detect any inhibitor for which it is sensitive, including, but not limited to, antibiotics or non-specific inhibitors such as sanitizers. See technical bulletin on the contractor's website at: <https://www.nmrd.com/>

Table 8-8 -- Number of Tests by Method by Family/Drug Non-Grade "A" Other Testing (Milk from Milk plant tanks/silos, milk transport tankers, etc.)

Tests Used by Family/Drug	Number of Industry Tests	Number of Positive Industry Tests	Number of Regulatory Tests	Number of Positive Regulatory Tests	Total Tests	Total Positive Tests	Percent Positive
BETA lactams							
Charm 3 SL3	202	0	0	0	202	0	0.000%
Charm SL Beta lactams	960	0	148	1	1,108	1	0.090%
Delvotest P 5 Pack**	460	0	2	0	462	0	0.000%
TOTALS	1,622	0	150	1	1,772	1	0.056%

** NCIMS evaluated these kits for detection of Beta lactams; however, unless the kits are used with Beta lactamase, they do not specifically identify the presence of Beta lactams. The reporting of these tests does not make it possible to separate the use/nonuse of Beta lactamase. A finding of "Not Found" would indicate the test did not detect any inhibitor for which it is sensitive, including, but not limited to, antibiotics or non-specific inhibitors such as sanitizers. See technical bulletin on the contractor's website at: <https://www.nmrd.com/>