

CgFARAD™ NEWSLETTER

SPRING 2024

CgFARAD™ - Protecting Animals and Our Food Supply

CgFARAD™ provides veterinarians with unbiased expertise on the withdrawal interval required before animals or animal products can enter the food chain both from a food safety and a residue detection perspective. Where licensed products for a species or a specific condition are not available, veterinarians are legally permitted to prescribe drugs extra-label. A CgFARAD™ recommendation must be obtained when drugs are used extra-label for all processed poultry and eggs. All other CgFARAD™ requests are submitted on a voluntary basis by veterinarians on behalf of their producer clients or feed companies.

The simplest definition of extra label drug use is a use that is any way different from the exact label instructions for the product including: species, age, route of administration, dose and duration.

CgFARAD™ responded to 2,687 withdrawal requests in 2023-2024

CgFARAD™ personnel also assist:

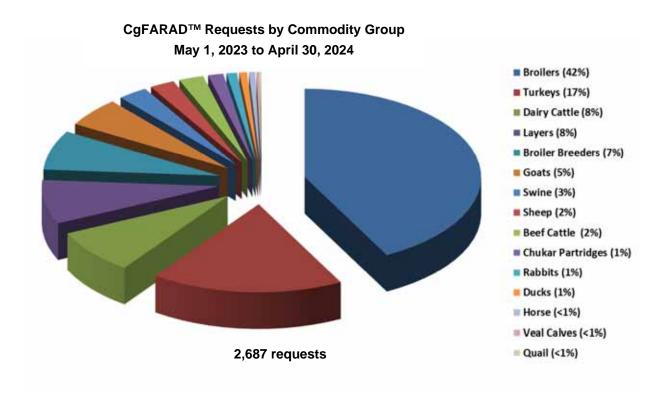
- veterinarians in determining safe withdrawal intervals when animals are accidentally exposed to pesticides, heavy metals or other chemicals;
- feed mills and processors when accidental contamination of feeds occur; and,
- regulatory agencies seeking clinical pharmacological expertise regarding drug residues.

CgFARAD™ services ensure the safety of Canada's food supply, while protecting our reputation with international trading partners and export markets.

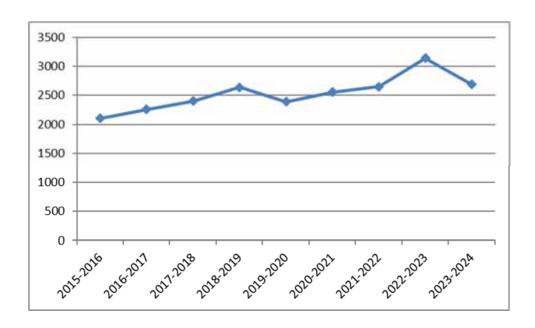
YEAR IN REVIEW

In our spring newsletter, we provide graphs illustrating requests by pharmaceutical product and by disease for each commodity group. This is valuable information as it illustrates the health challenges with which veterinarians are dealing and highlights where there may be limited registered label options. The CgFARAD™ pharmacologists also use this knowledge to identify where drug residue research and depletion studies are needed.

The number of requests received by CgFARAD™ in 2023-2024 was similar to the 2021-2022 volume (2,687 and 2,649 respectively). In 2022-2023, we saw a significant increase of 493 requests over 2021-2022. The service volume appears to have stabilized this year.



Withdrawal Recommendation Requests

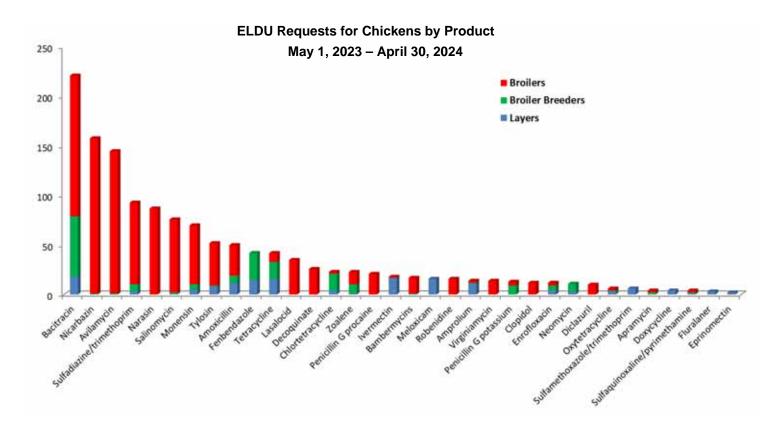


The CgFARAD™ personnel provide withdrawal guidance as our major mandate but are playing an increasing role in the promotion of antimicrobial stewardship. Dr Dowling continues to be very active in the area of antimicrobial stewardship. She is now a member of the Veterinary Antimicrobial Susceptibility Testing (*VAST*) subcommittee of the Clinical & Laboratory Standards Institute (*CLSI*), the organization that sets international standards for microbiology laboratories. She serves on the Education and Outreach Antimicrobial Stewardship group of the International Society for Companion Animal Infectious Diseases (ISCAID).

The CgFARAD™ personnel continue to be concerned about the shortage of approved veterinary products in Canada that is impacting everything from animal health and welfare, economics of production, to international competitiveness of Canadian animal agriculture. Dr Dowling has represented the CgFARAD™ on an industry working group on access to antimicrobials for the Canadian market that started with a roundtable meeting with the Veterinary Drugs Directorate, Regulatory Operations and Enforcement Branch, Pest Management Regulatory Agency, Canadian Food Inspection Agency, and Agriculture and Agri-Food Canada. This was followed by online meetings of the industry working group to explore options for improving the access of Canadian producers to necessary medications. The working group is producing a "white paper" on improving access to veterinary health products in Canada that all industry partners could bring to government to drive improvements in access to antimicrobials and alternatives. Dr Dowling also represents the CgFARAD™ on the Canadian Animal Feed and Health Products Engagement Committee (CAFHPEC). An online meeting in May had presentations by the government agencies involved in animal health on initiatives to promote antimicrobial stewardship, limit antimicrobial resistance and improved access to veterinary products.

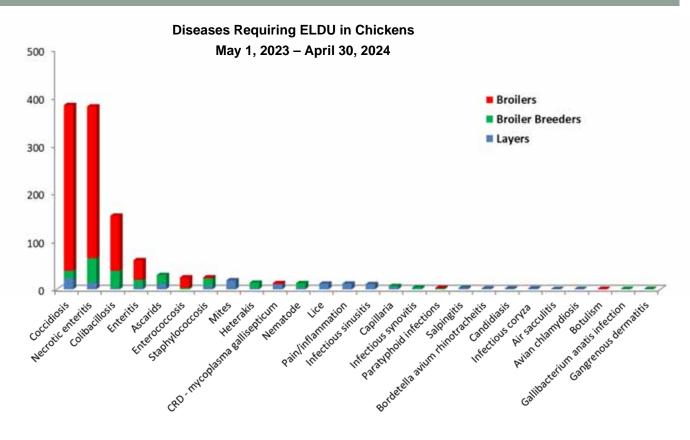
Commodity Group Trends

In all types of chickens, coccidiosis and necrotic enteritis continue to be the predominant diseases that require extra-label drug use (ELDU). The chicken industry has eliminated the preventive use of Category I and II antimicrobials and has a goal to eliminate the preventive use of Category III antimicrobials. So, the use of these drugs has moved from disease prevention requests to treatment in the face of disease requests. This leaves a heavy reliance on bacitracin and avilamycin for the treatment of necrotic enteritis, along with the use of Category IV ionophores to control coccidiosis.

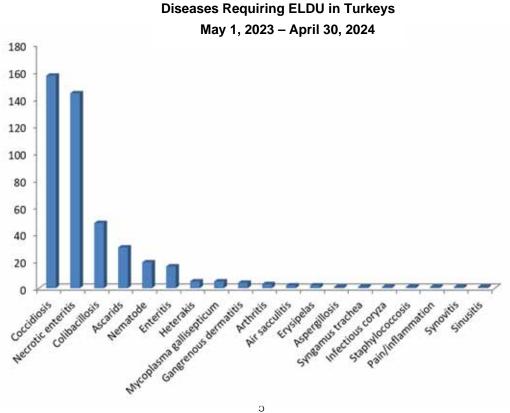


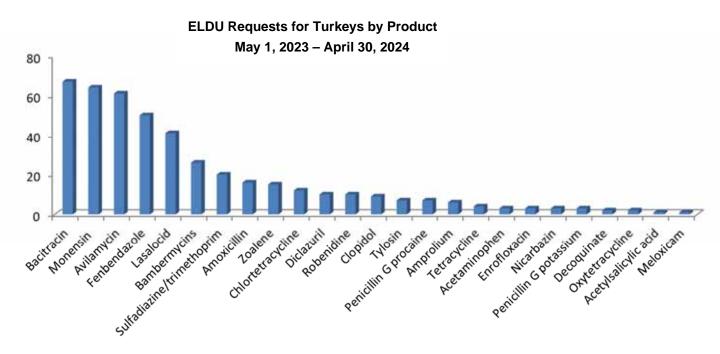
Mites and lice are problematic both in commercial birds and backyard flocks. We do a lot of education for veterinarians for small flock owners, as pesticides cannot be used in an extra-label manner and we must tell them that the CgFARAD™ cannot give withdrawal recommendations for an illegal pesticide use. Currently, we only have residue depletion information for the use of ivermectin in the water, so we direct veterinarians to this treatment. For commercial flocks, we are eagerly awaiting the approval of Exzolt™ (fluranaler, Merck Animal Health) for control of mites in Canadian poultry. Due to its strong safety profile, the maximum residue limits will be high and the product is anticipated to have a zero egg withdrawal time in Canada, as it does in the European Union. Unfortunately for the backyard flocks, the smallest size of the product is a container that treats 10,000 birds.

The CgFARAD™ directors formed a small research group with a CFIA scientist and a poultry professor from the University of Saskatchewan and with funding from the Egg Farmers of Canada, investigated the use of dog and cat formulations of fluralaner to determine if they would be suitable for use on small flocks of layers. While the oral dog tablet resulted in high egg residues that would require a long withdrawal period, the topical cat formulation resulted in egg residues that never exceeded the maximum residue limit that has been approved for many years in the European Union.

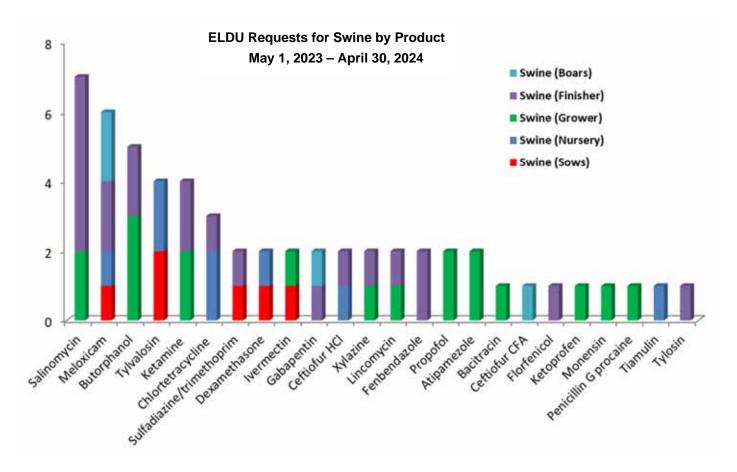


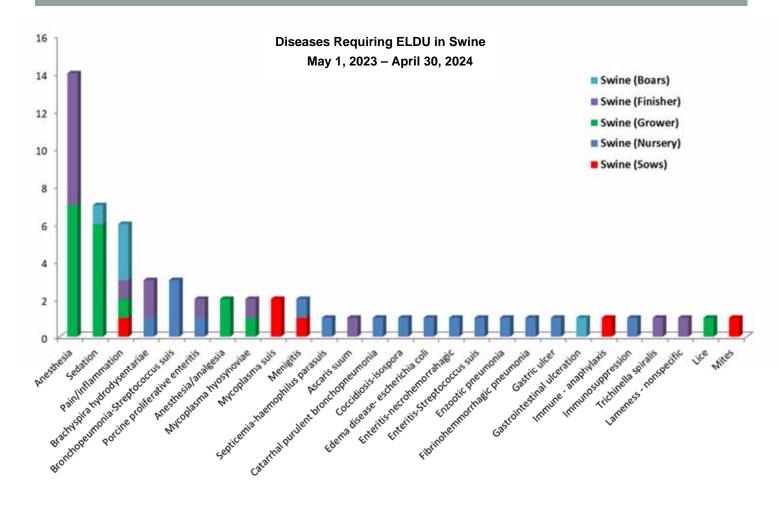
As for chickens, necrotic enteritis and coccidiosis remain significant diseases of turkeys that may require extralabel combinations of medications to control.





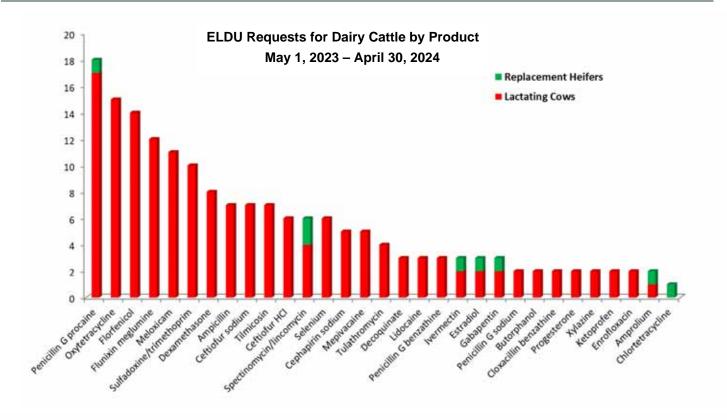
We are frequently consulted for advice on drugs used for anesthesia and pain control in swine, especially as the production of breeding boars uses high tech methods of determining suitability such as CT scans. The swine veterinarians have few on-label treatment options in this area and one of the only approved products was in a back-order situation. It is difficult for Canadian veterinarians to meet the requirements of the Code of Practice for the care and handling of pigs with so few treatment options.

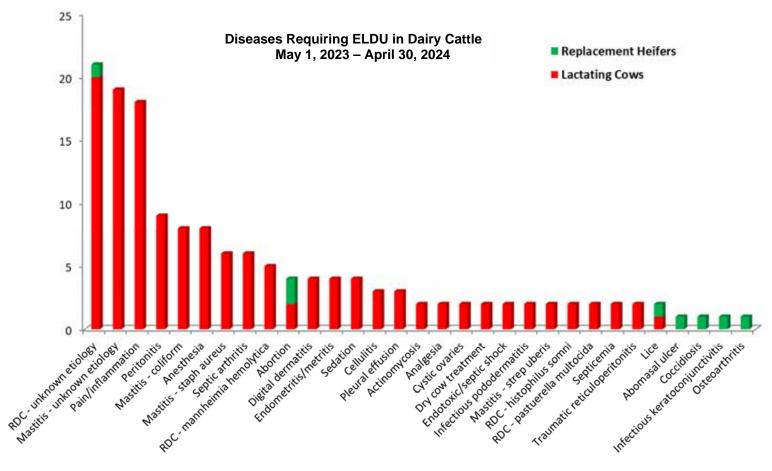




In dairy cattle, treatment of bovine respiratory disease (BRD) and mastitis continue to be the most common reasons for ELDU. Treatment of digital dermatitis and pain and inflammation are also important reasons for ELDU. Drug availability for the on-label treatment of mastitis continues to be a problem and makes it very difficult for dairy veterinarians to practice good antimicrobial stewardship.

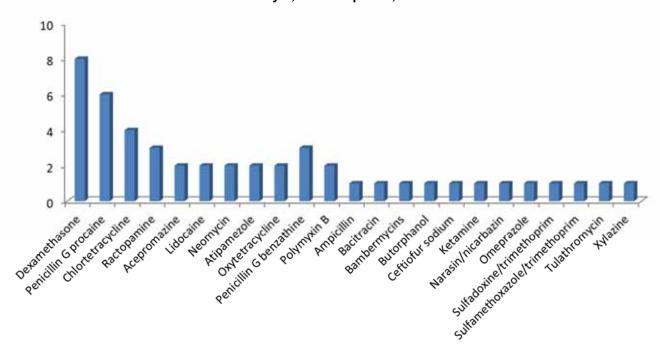
Feed mill errors and accidental exposures are always given emergency priority for dairy cattle. For these situations, CgFARAD™ personnel provide information on drug residue testing in milk and laboratories with the capability of rapid testing in order to get the impacted producer back online as fast as possible.

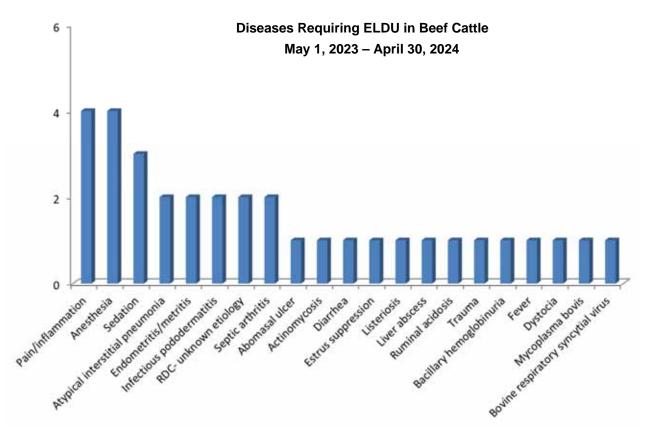




Requests for withdrawal information for ELDU in beef cattle are traditionally low. Cow/calf operations have animals that are far from the time of slaughter and feedlot operations typically do not use drugs in an ELDU manner.

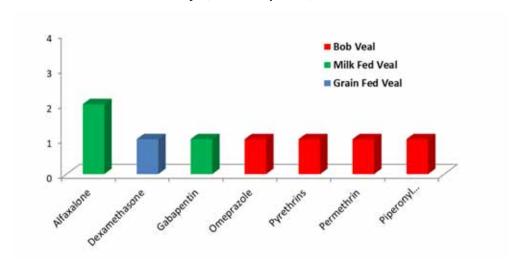
ELDU Requests for Beef Cattle by Product May 1, 2023 – April 30, 2024

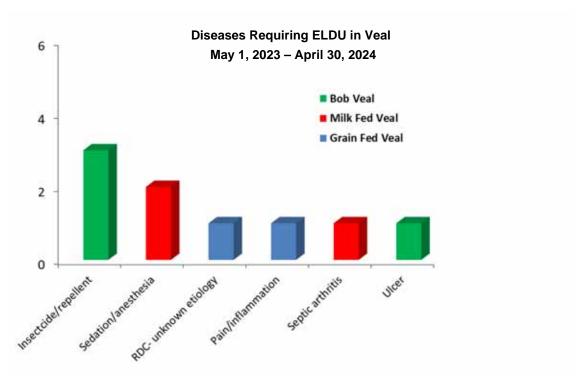




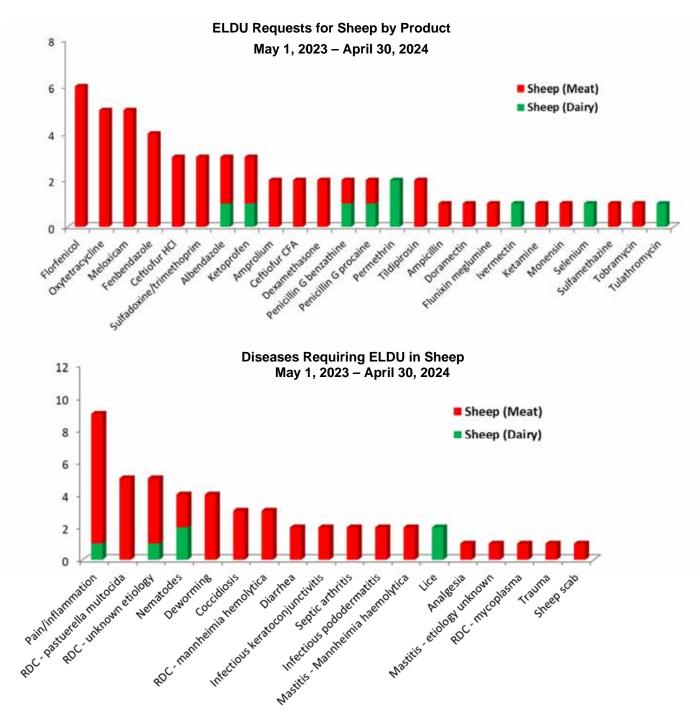
ELDU in the veal sector focuses on treatment of infectious diseases. The Veterinary Drugs Directorate and the Canadian Food Inspection Agency have set guidelines for the MRLs applied to veal. Category I drugs and hormones will be enforced to the limits of detection of the CFIA assays and require greatly extended withdrawal times. In keeping with good antimicrobial stewardship guidelines, we also provide advice on the appropriate use of such drugs, including the warning that such use is illegal in the United States. For the other categories of drugs, the CFIA will enforce to the MRLs set for cattle.

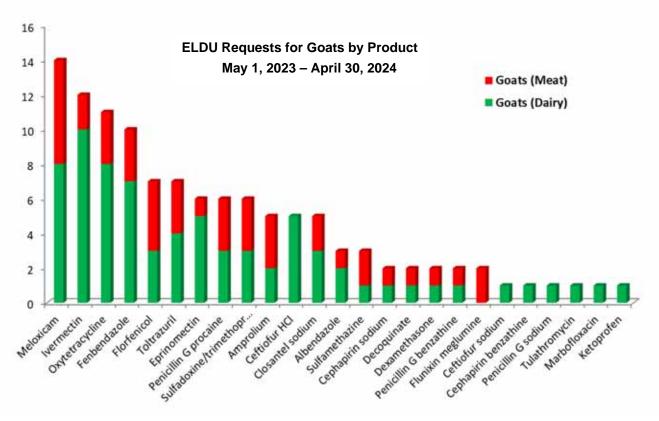
ELDU Requests for Veal by Product May 1, 2023 – April 30, 2024

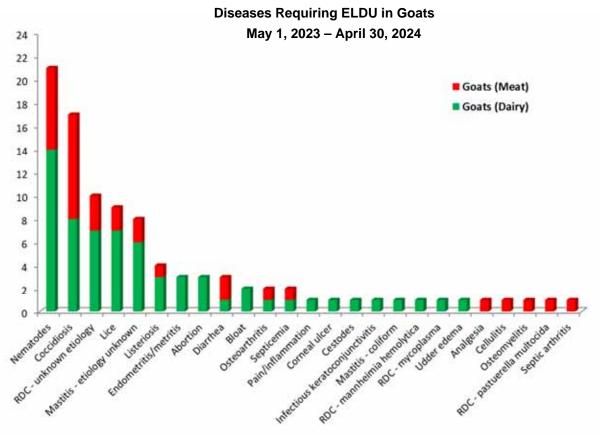




Due to limited drug approvals and bacterial and parasite resistance, antimicrobials, coccidiostats and dewormers are the most commonly used products for ELDU in sheep and goats. Even if parasite resistance is not present, residues in milk of lactating sheep and goats can be very problematic due to persistence and very sensitive detection methods used by regulators. The CgFARADTM personnel provide a lot of guidance on the appropriate use of dewormers in small ruminants. For antimicrobial use, there is a tendency for small ruminant practitioners to want to offer "recipe books" of drugs, dosages and withdrawal times to producers. The CgFARADTM personnel also provide a lot of information on good antimicrobial stewardship principles and the need for specific prescriptions and CgFARADTM withdrawal recommendations for treatment of infectious diseases.

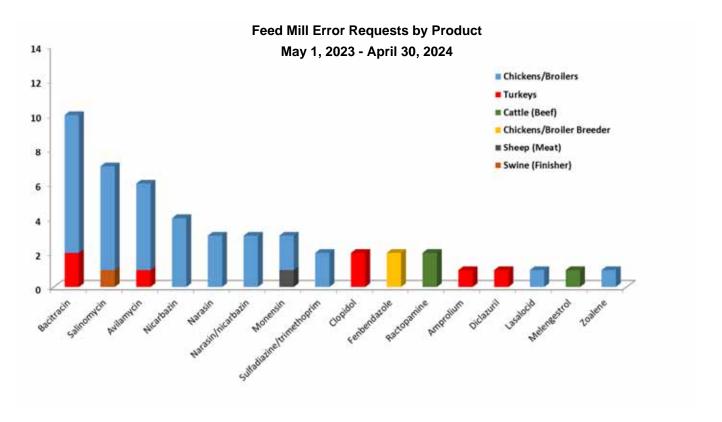






With the launch of the new database in 2017, the CgFARAD™ became able to track requests for "feed mill errors" as we realized that this was not veterinarian instigated extra label drug use but reflected some of the most economically significant requests that we receive. Because of this, these types of requests are often emergencies and require CgFARAD™ personnel to respond guickly and often out of regular business hours.

Since 2017, the CgFARAD™ has received 246 requests involving feed mill errors, primarily involving poultry and the antimicrobials and coccidiostats used to control necrotic enteritis and coccidiosis. There were 49 requests involving 52 products in 2023-2024. In many cases, we find that there is little to no risk of a detectable residue or human food safety issue. In some cases, we are able to advise dilution or redirection of the medicated feed so that it can still be used. Unfortunately, in some cases we do have to recommend testing of product from exposed animals to ensure human food safety or disposal of the feed.



The chart below shows a comparison of ELDU requests by commodity over the past several years. Overall requests in 2023-2024 returned to a level comparable to 2021-2023. Requests last year, 2022-2023, increased by 493 as compared to 2021-2022 and was the highest number of annual requests received. Broiler requests were noticeably higher than average last year but declined this year to more historical levels.

The "other" category in 2023-2024 was comprised of four alpaca requests, two yak, one ostrich and one for bees reflecting the diversity of species groups served by CgFARAD™ team. However, most requests are for the major farmed animal species.

Species	2023-2024 requests	2022- 2023 requests	2021-2022 requests	2020-2021 requests	2019- 2020 requests	2018- 2019 requests	2017- 2018 requests	2016- 2017 requests	2015- 2016 requests
Chickens/Broilers	1116	1704	1057	819	866	796	756	825	801
Turkeys	465	413	317	455	399	380	512	482	446
Dairy Cattle	215	172	190	230	274	266	261	232	266
Broiler Breeders	191	193	237	227	228	259	119	79	101
Chickens/Layers	212	213	325	330	145	144	137	92	69
Goats	140	114	156	153	134	241	189	196	90
Sheep	60	85	66	110	80	170	164	125	61
Beef Cattle	60	63	68	67	72	82	64	88	48
Swine	72	50	63	50	62	171	38	40	56
Rabbits	25	26	22	23	24	24	22	21	21
Bison	22	9	8	5	22	11	13	11	7
Horses	15	17	45	12	19	23	21	10	19
Ducks	19	22	24	48	16	20	5	6	13
Veal Calves	8	12	11	4	14	15	45	23	48
Deer	2	0	6	0	7	0	1	1	5
Chukar Partridges	37	16	6	1	6	10	6	8	19
Elk (Wapiti)	6	5	8	2	5	5	4	N/A	3
Quail	3	3	8	2	4	5	10	5	9
Geese	1	5	8	2	3	2	5	N/A	3
Pigeons	2	3	0	3	2	3	14	N/A	4
Guinea Fowl	2	5	9	1	2	2	8	1	0
Pheasants	4	0	3	7	2	6	6	6	4
Fish	2	5	2	1	0	1	4	1	2
Other	8	7	10	5	7	4	N/A	5	10
Total	2687	3142	2649	2557	2393	2640	2404	2257	2105

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