



California Commercial Feed Tonnage Report 2022



The California Department of Food and Agriculture (CDFA) Commercial Feed Regulatory Program (CFRP) is funded by the feed industry with an annual license fee and tonnage tax. The 2022 tax rate was ten cents (\$0.10) per ton of feed distributed to the end-user in the State. Certain human food by-products were eligible for a lower tax of five cents (\$0.05) per ton to incentivize diversion of by-products to commercial feed.

Changes have been made to the tonnage reporting section in the ExtraView database to allow the licensee to provide the type of feed and intended species. This information is increasingly valuable to the CFRP, researchers, and other stakeholders to understand the California feed industry in a changing market. CDFA Safe Animal Feed Education (SAFE) Program has evaluated 2022 tonnage data to provide the first annual Commercial Feed Tonnage Report. Categorization of feed type in this report is an estimation rather than exactly as provided by the licensee. Evaluation of the data revealed there has been inaccurate use of the feed categories, and some tonnage was re-categorized based on the written descriptions of the product/commodity. Clarifications will be made to the tonnage reporting section in the ExtraView database and guidance documents will be provided to help work towards a reporting system that is categorized appropriately by the licensee at the time of reporting.

Over 23 million tons were reported to the CFRP in 2022, with over one-third as formula feeds and supplements (**Figure 1, Table 1**). “Formula feed” is defined as any two or more feed ingredients, proportioned, mixed, and processed according to specifications. About 43% of the tonnage reported was categorized as an agricultural, industrial, or human food by-product. About 16% of tonnage was categorized as grains and seeds, and all other feed types made up 2% or less of the total tonnage. (**Figure 1, Table 1**). The majority (60%) of tonnage reported was identified as intended for dairy cattle (**Figure 2**).

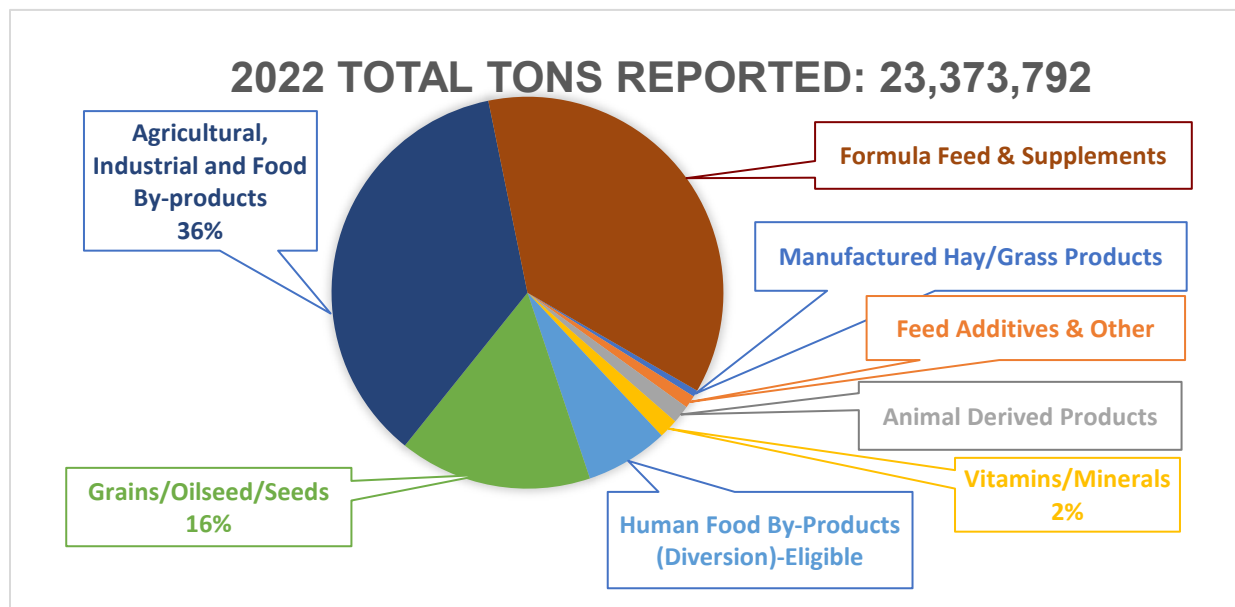


Figure 1. Percentage of total 2022 tonnage in each feed type.



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Table 1. Total tonnage in each feed type in 2022.

Feed Type	Tons
Formula Feed	8,400,921
Agricultural By-products	7,134,780
Grains/Oilseed/Seeds	3,721,840
Human Food By-Products (Diversion)-Eligible	1,598,945
Industrial By-products	948,615
Vitamins/Minerals	371,257
Animal Derived Products	345,856
Other Human Food By-products	338,870
Other (Specify)	196,760
Supplement/Concentrate	139,621
Manufactured Hay/Grass Products	128,389
Feed Additives	47,939
Grand Total	23,373,792

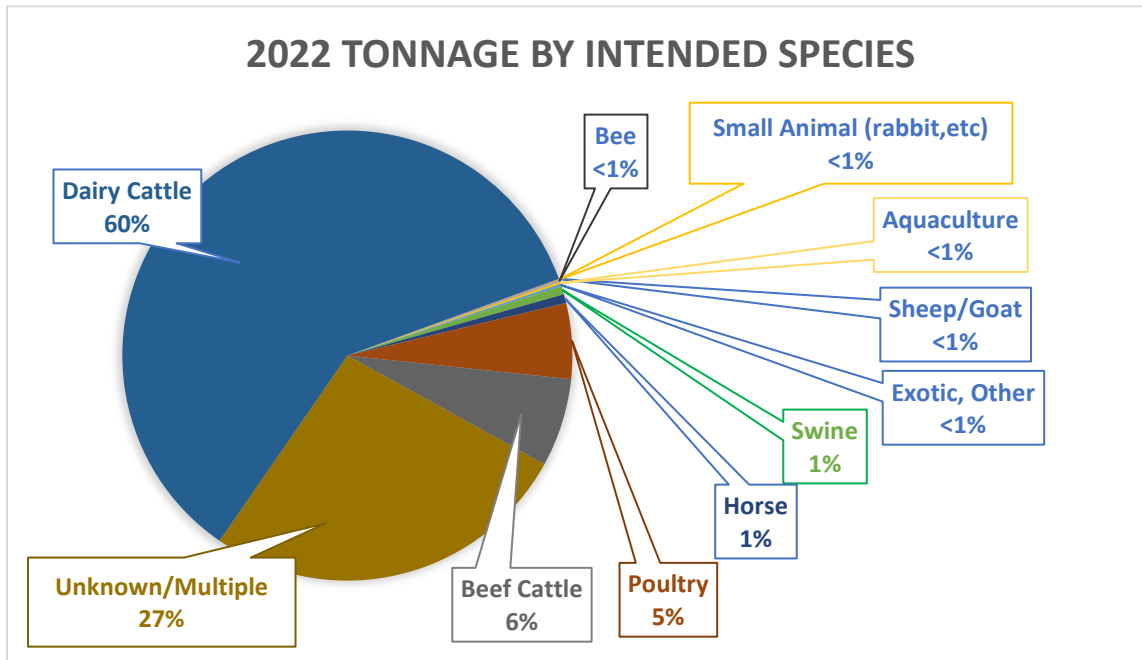


Figure 2. Total tonnage reported in 2022 by intended species of animal.



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Formula Feeds, Supplements, Premixes

Within each feed type, licensees also selected a feed category or “other” and wrote-in a description of the product/commodity. Under “formula feed” and “vitamins/minerals” the available categories were “medicated” or “non-medicated”. “Medicated” includes both feeds medicated with Veterinary Feed Directive (VFD) drugs and all other animal drugs such as monensin and decoquinate. Over 90% of the tonnage reported within these categories was non-medicated formula feed (**Figure 3, Table 2.**)

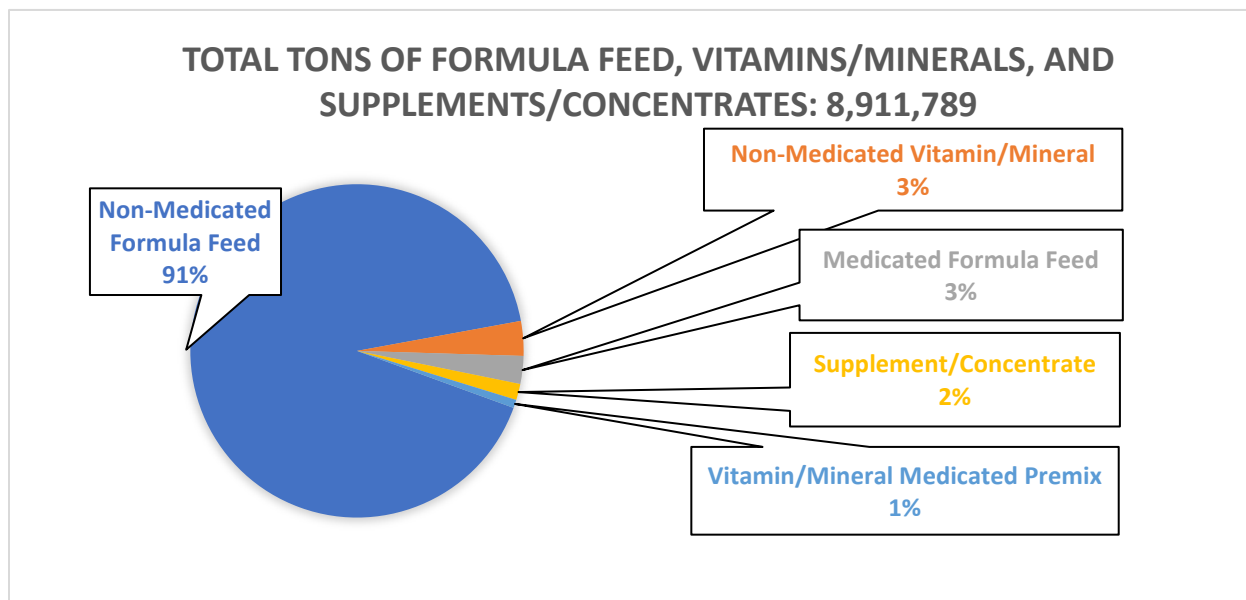


Figure 3. Percentage of tonnage for each feed category within Formula Feed, Vitamin/Mineral, and Supplement/Concentrates.

Table 2. Tonnage by feed category for Formula Feeds, Supplement/Concentrates, and Vitamins/Minerals.

Feed Category	Tons
Non-Medicated Formula Feed	8,159,774
Non-Medicated Vitamin/Mineral	300,131
Medicated Formula Feed	241,146
Supplement/Concentrate	139,612
Vitamin/Mineral Medicated Premix	71,126
Grand Total	8,911,789



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Commodities and Feed Additives

In the grains/oilseeds/seeds feed type (**Table 3**), the most tonnage was reported as “mixed grains”, which may represent a mixture of whole grains such as a corn/barley mix or may have been used to report the tonnage of several individual grain commodities without distinguishing between them. The next highest commodity reported was corn, followed by “canola*” and “soybean**”; however, it is possible some of this tonnage may have been inaccurate reporting of canola *meal* and soybean *meal**.

Table 3. Tonnage by feed category for Grains/Oilseeds/Seeds.

Feed Category	Tons
Mixed Grains	1,575,536
Corn	1,393,106
Canola (Rapeseed)*	503,930
Whole Soybeans*	106,836
Wheat	69,885
Other**	66,093
Oats	3,508
Barley	2,946
Grand Total	3,721,840

*It is possible some of this tonnage was meant to represent canola/ soybean meal.

**Other grains/seeds reported included rice, milo, sunflower, rye, quinoa, flax.

Manufactured hay products, such as pellets and cubes, contributed about 128,000 tons.

Various “other” feed products were categorized as “feed additives” which consisted of technical additives, flavorings, amino acids, non-protein nitrogen, and microorganisms (**Table 4.**)

Table 4. Tonnage by feed category for Feed Additives.

Feed Category	Tons
Technical Additives (Preservative, Binder, Flavor, etc.)	20,899
Enzymes, Microbials, Inoculants, Fermentation Products, Yeast, etc.	13,591
Amino Acids	8,741
Urea	4,619
Type A Medicated Articles	89
Grand Total	47,939



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By-products

The tonnage reported under “human food by-products (diversion)- eligible” was subject to the reduced tonnage tax rate of five cents per ton, upon approval and audit from the program. The actual tonnage reported to the program under this feed type was 695,642.49 tons. However, estimated tonnage which *may* fit into this category based on written descriptions is nearly triple that amount (**Table 5**).

The greatest volume and diversity of tonnage was reported as agricultural, industrial, or human food by-products (**Table 6**). Canola meal had the most tonnage reported of any single commodity, followed by whole cottonseed and almond hulls which were only slightly less than the tonnage reported for corn and mixed grains.

Table 4. Tonnage by feed category for Human Food By-products (Diversion) Eligible.

Feed Category	Tons
Cull Fruit & Vegetable	538,842
Brewers Wet Grain	331,362
Whey/Dairy By-Products (Liquid)	270,545
Dried Bakery Product/Cereal Food Fines	267,268
Wet Fruit/Vegetable Pomace/Pulp	155,464
Wet Food Processing Waste	20,896
Recovered Retail Food	15,555
Restaurant Food Waste	0
Grand Total	1,599,932

Table 6. Tonnage by feed category for Agricultural, Industrial and Food By-Products.

Feed Category	Tons
Canola Meal	2,047,364
Whole Cottonseed	1,170,122
Almond Hulls	1,080,978
Corn By-Product	630,677
Dried Distiller's Grains	543,535
Almond Hulls & Shell	498,181
Mixed By-Products	418,790
Wet Distiller's Grains	398,353
Soybean Meal	308,725
Cottonseed By-products	246,211
Grain Screenings	229,413
Soybean By-products	182,843
Grape Pomace	152,158
Wheat Mill Runs	137,437



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Sunflower Meal	94,275
Other (Human Food By-products) *	75,995
Dried Beet Pulp	31,282
Dried Whey/Milk Products	31,193
Molasses By-product	17,304
Rice By-product	14,967
Safflower Meal	11,791
Molasses	11,339
Rice Bran	9,606
Other (Agricultural By-products) *	9,224
Nut By-products	8,744
Beans/Peas	5,935
Potato	3,467
Glycerin	3,219
Almond Shell	2,728
Corn Oil	2,641
Linseed Meal	2,393
Olive Meal	414
Grand Total	8,381,305

*Included in "Other" is tonnage that was not described or not able to be fit into a category.