2024 Crop Year Mycotoxin Report

From July 2024 through May 2025, the Commercial Feed Regulatory Program (CFRP) obtained 62 samples of various feeds for mycotoxin analysis **(Figure 1).** Of the 62 samples obtained, 58 were routine official samples, three were official complaints, and one was an investigative complaint. The University of California, Davis, California Animal Health and Food Safety Laboratory conducted 11 mycotoxin analyses on each of the 62 samples, for a total of 682 analyses. Samples were analyzed for aflatoxin B1, B2, G1, G2 ppb, HT-2 ppb, zearalenone (F-2 toxin) ppm, fumonisin B1, B2, B3 ppm, deoxynevalenol (DON) ppm, and ochratoxin ppb.

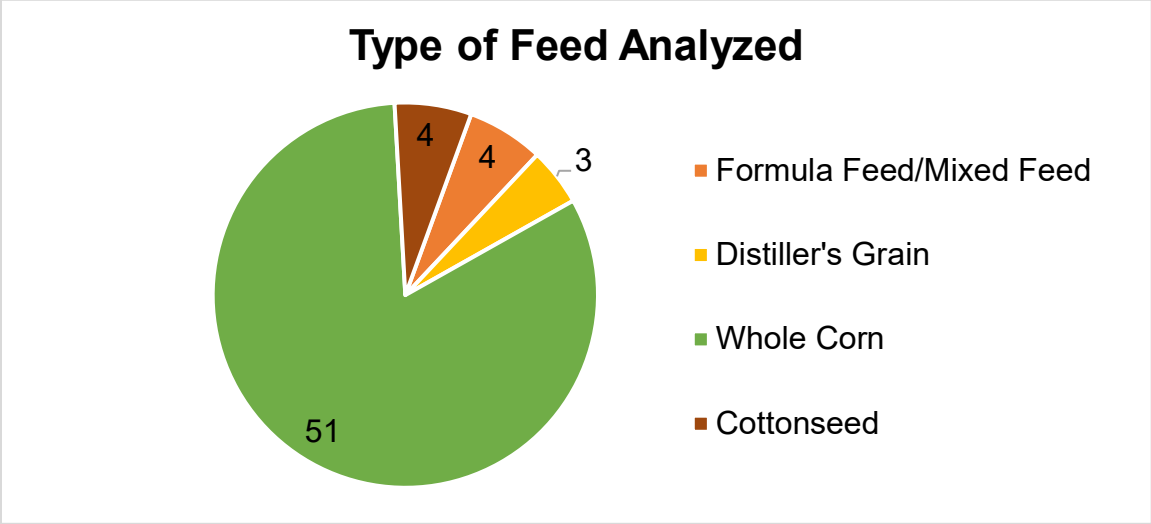

Figure 1. Feed type of 62 samples obtained and analyzed by the CFRP for mycotoxins.

The US Food and Drug Administration (FDA) has established tolerance levels for aflatoxin, fumonisin and deoxynevalenol (vomitoxin) by species and class of livestock[1]. The tolerance level for aflatoxins varies by species from 300 parts per billion (ppb) for finishing beef cattle to 20 ppb in dairy cattle. Due to California's prominent dairy industry, CFRP requires that all commercial feed in California not exceed 20 ppb total aflatoxin, since it can be transferred into milk and poses a human health concern. Tolerance levels for fumonisin range from 5 parts per million (ppm) for equids and rabbits to 100 ppm for poultry raised for slaughter. Deoxynevalenol tolerance levels in feed ingredients range from 5 ppm for swine to 30 ppm for beef cattle. FDA has not established guidance for the other mycotoxins tested.

Of the 62 samples analyzed, 28 (over 45%) resulted in no detectable levels of mycotoxins, and 33 samples of corn and one sample of wet distillers grains resulted in detectable levels of mycotoxins including fumonisin B1 and B2, aflatoxin B1, and vomitoxin **(Figure 2).** While detectable levels were found, none of the samples contained mycotoxin levels that were considered to be above the established regulatory limits, therefore no safety concerns were noted, and no regulatory action was taken by the program. No samples contained any detectable levels of aflatoxin B2, G1, or G2, fumonisin B3, zearalenone (F-2 toxin), H-T2, or ochratoxin.

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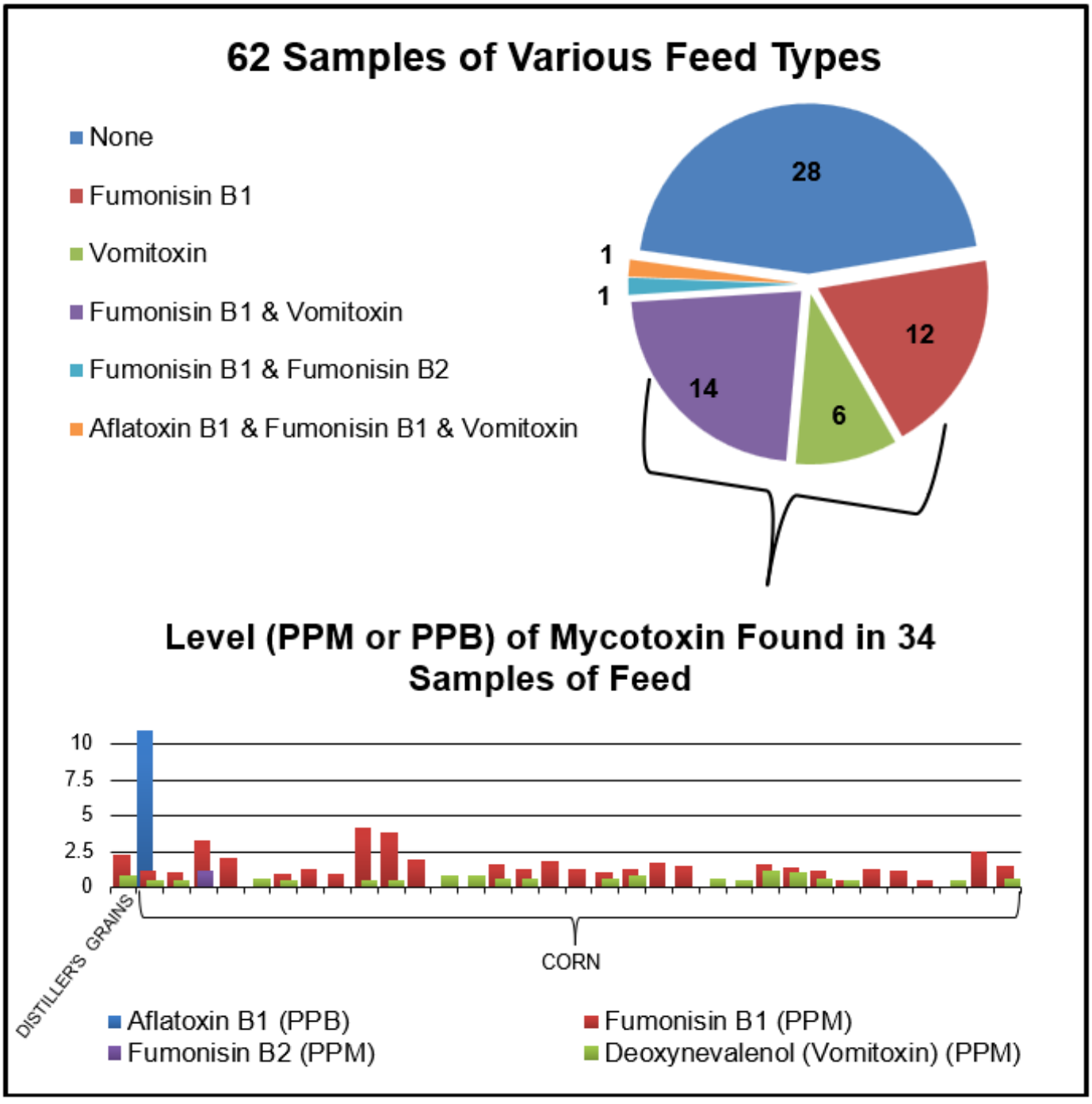

Figure 2. Mycotoxins detected in 34 of 62 samples of various feeds from the 2024 crop year and the levels detected. Fumonisin and deoxynevalenol are reported in PPM; aflatoxin B1 is reported in PPB. FDA tolerances vary by species, with a maximum tolerance of 20 ppb for aflatoxin and 5 ppm for fumonisin and deoxynevalenol.

1: FDA Center for Veterinary Medicine (2025). Chemical Contaminants; Mycotoxins: https://www.fda.gov/animal-veterinary/biological-chemical-and-physical-contaminants-animal-food/chemical-contaminants#Mycotoxins