**Action and Advisory Levels for Mycotoxins in Livestock Diets**

Table 1. FDA action levels for aflatoxin.

| Species | Commodity | Maximum Level |
|---|---|---|
| **Immature animals or when end use is not known** | Corn and other grains | 20 ppb |
| **All species** | Animal feed other than corn or cottonseed meal | 20 ppb |
| **Breeding beef cattle, breeding swine, or mature poultry** | Corn and other grains | 100 ppb |
| **Finishing swine of 100 lbs or greater** | Corn and other grains | 200 ppb |
| **Finishing beef cattle** | Corn and other grains | 300 ppb |
| **Beef cattle, swine and poultry** | Cottonseed meal | 300 ppb |

Table 2. FDA advisory level for DON (deoxynivalenol) also known as vomitoxin.

| Species | Commodity | Maximum Level |
|---|---|---|
| **Ruminating beef cattle older than 4 mo. and feedlot cattle[1]** | Grains and grain by-products | 10 ppm |
| **Ruminating beef cattle older than 4 mo. and feedlot cattle[1]** | Distillers grains and brewers grains | 30 ppm |
| **Ruminating dairy cattle older than 4 mo.[2]** | Grains and grain by-products | 10 ppm |
| **Ruminating dairy cattle older than 4 mo.[2]** | Distillers grains and brewers grains | 30 ppm |
| **Poultry[3]** | Grains and grain by-products | 10 ppm |
| **Swine[4]** | Grains and grain by-products | 5 ppm |
| **All other animals[5]** | Grains and grain by-products | 5 ppm |

[1]Total ration not to exceed 10 ppm DON.

[2]Total ration not to exceed 5 ppm DON.

[3]Ingredients not to exceed 50% of the diet.

[4]Ingredients not to exceed 20% of the diet.

[5]Ingredients not to exceed 40% of the diet.

Table 3. Considerations for other mycotoxins[1].

| Mycotoxin | Specie | Indications |
|---|---|---|
| Zearalenone | Swine | 0.1 to 5 ppm shown to cause reproductive problems in swine. |
| | Cattle | Prolonged exposure to levels greater than 15 ppm shown to cause reproductive problems. |
| Fumonisin | Horses | Levels as low as 5 ppm linked to disorientation, agitation, colic, blindness, and death. |
| | Swine | 10 ppm |
| | Cattle | 50 ppm |

[1]FDA does not have specific action or advisory levels for these mycotoxins.

Calculating the dietary inclusion rate

**Example 1.** An aflatoxin test result on corn measured 400 ppb (parts per billion). The corn is the only potential source of aflatoxin for a supplement that will be fed to growing beef cattle intended for finishing. Based on Table 1., FDA permits 300 ppb aflatoxin in the diet for this class of livestock. Using the following equation:

_____ppb (allowed) ÷ _____ppb (tested) x 100 = % in total diet.

300 ppb (allowed) ÷ 400 ppb (tested) = 75% of total ration can be the tested lot.

**Example 2.** An aflatoxin test result on corn measured 1,000 ppb (parts per billion). A beef cattle producer intends to use the lot of corn for his breeding beef herd. Based on Table 1., FDA permits 100 ppb aflatoxin in the diet for this class of livestock. Using the following equation:

_____ppb (allowed) ÷ _____ppb (tested) x 100 = % in total diet.

100 ppb (allowed) ÷ 1000 ppb (tested) = 10% of total ration can be the tested lot.

The cows weigh 1,200 lbs with an expected daily dry matter intake of 2% BW. The expected intake of a diet that is 88% dry matter is 1,200 x 0.02 ÷ 0.88 = 27 lb/d.

The amount of the tested corn offered per head daily cannot exceed 2.7 lbs. If 2.7 lbs is not a sufficient amount of supplemental energy, any additional supplemental energy source must come from a grain or grain by-product that is not contaminated with aflatoxin.