

**GUIDE FOR MYCOTOXINS IN DAIRY
Approximate Range For Potential Reaction**

<u>MYCOTOXIN</u>	<u>LOW</u>	<u>MEDIUM</u>	<u>HIGH</u>
DON (vomitoxin)	< 300 ppb	300 – 1,000 ppb	> 1,000 ppb
Zearalenone	< 100 ppb	100 – 300 ppb	> 300 ppb
Aflatoxin	< 10 ppb	10 – 30 ppb	> 30 ppb
T-2 toxin	< 75 ppb	75 – 200 ppb	> 200 ppb
Fumonisin	< 600 ppb	600 – 1,500 ppb	> 1,500 ppb

Qualifiers:

- Multiple mycotoxins will compound potential effects.
- Toxic effect may be increased by body condition, health challenge, or stress.
- Mycotoxins are not uniformly distributed in feedstuffs
- Small samples yield high test errors and underestimate mycotoxin contamination rate.
- Low-level test results may still be cause for pro-active response.

Representative Symptoms:

<u>DON</u>	<u>Zearalenone</u>	<u>Aflatoxin</u>	<u>T-2 Toxin</u>	<u>Fumonisin</u>
Reduced Feed Intake – feed refusal	Hyper-estrogenism	Liver damage; altered protein synthesis	Reduced feed intake	Reduced feed intake
Reduced milk production; reduced milk fat	Poor reproductive performance: <ul style="list-style-type: none"> • Short cycle heats • Cystic cows; follicular cysts • Twinning cows; 	Lower milk protein	Intestinal hemorrhages	Reduced milk production
Poor reproductive performance	<ul style="list-style-type: none"> • multiple ovulations • Enlarged mammary glands in virgin heifers 	Impaired immune function	Frequent defecation	GI tract ulceration
Elevated SCC		Increased disease rates	Impaired immune function	Impaired immune function
Impaired immune function		Highly interactive	Increased disease rates	
Loose, inconsistent manure				(Revised 06/2013)