

EFFECTIVE DATE	N P Analytical Laboratories	METHOD CODE
REVISED: 06/02/25	LABORATORY TEST METHOD SUMMARY	DONE
REPLACES: 05/12/21	DON – ELISA (Neogen Veratox)	PAGE 1 OF 1
KEY WORDS: vomitoxin, deoxynivalenol		

1. SCOPE AND PURPOSE:

This method measures deoxynivalenol (vomitoxin) in grains, grain products, foods, and pet foods. There is no assurance that matrices other than those listed can be assayed using this method.

2. PRINCIPLE:

- 2.1. This test uses the Neogen Veratox quantitative vomitoxin test kit, which is a direct competitive, enzyme-linked, immunosorbent assay. Vomitoxin is extracted with water. A portion of the extract is filtered and mixed with enzyme-labeled toxin (conjugate). The mixture is transferred to antibody-coated wells, where free vomitoxin competes with conjugate for antibody binding sites. The wells are rinsed and substrate is added. Color develops as a result of the presence of bound conjugate. Stopping reagent is added, and the optical density of the sample solution is read and compared with the optical density of known standards.
- 2.2. Using a 10 g sample, the lowest confidence level of this method is 0.5 ppm vomitoxin.
- 2.3. Known Interferences:
 - 2.3.1. The test kit is a screening method and will not differentiate between vomitoxin, 3 acetyl-vomitoxin, and 15 acetyl-vomitoxin. If a value above the detection level of the kit occurs (>0.5 ppm), results may be confirmed and quantitated with an additional approved method.
 - 2.3.2. There are no known interferences for this method that have not been addressed.

3. PRECISION:

Records of method precision based on Method Validation and/or known control summaries are located in the QA Master file for this test method. Assay precision may vary with test matrix and analyte level. Terms used to describe method precision are defined in NPSOP3000, *Validation of Quantitative Chemical Tests*.

4. REFERENCES:

Veratox (DON) II Quantitative Test Kit Instructions, Neogen Corporation, Lansing, MI 48912