

TRILOGY REFERENCE MATERIAL CERTIFICATE



Certification Date: September 2015
Manufacture date: September 2015
Expiration Date: September 2020
Product Number: TR-Z100, TR-Z500, or TR-Z1000
Sample Weight: 100, 500, OR 1000 grams
Description: Corn Naturally Contaminated with Zearalenone

Lot # Z-C-333

Analysis Compound	Detection Limits	Mean ppb	Mean SI units	1 sd range	2 sd range	3 sd range
Zearalenone	50 ppb	273.0	($\mu\text{g}/\text{kg}$)	243.5 to 302.5	214.0 to 331.9	184.6 to 361.4

Total 273.0 ppb
Std dev 29.5 ppb
% CV or %RSD 10.8 %

ND=None Detected

Method Reference – AOAC 976.22 with modifications

Expanded measurement of uncertainty ($k=2$) = 32.0% or ± 87.3 (ppb or $\mu\text{g}/\text{kg}$)

Range of product incorporating uncertainty ranges = 185.7 to 360.3 (ppb or $\mu\text{g}/\text{kg}$)

Storage conditions: Recommended Storage of this product is at less than 8°C.

To obtain the results above, 30 different extracts were prepared on a minimum of 6 different analyses dates. These were extracted with 84/16 CH₃CN/H₂O for 1 hour on an Eberbach shaker. Samples were analyzed by HPLC using AOAC method 976.22 with modifications. This result represents the results you would find from one laboratory performing one specific method repeatedly over the course of several weeks. The standard deviation ranges notes above represent results you would anticipate with 66% (1 sd range), 95% (2 sd range) and 99% (3 sd range) confidence with the method specifics listed above. Additionally, uncertainty has been calculated and the range is also reported above. These ranges will allow you, the end user to determine which range best suits your individual requirements. Results of this sample may vary with methodology and extraction procedures utilized in your laboratory. These results relate only to the sample material listed above. The certified value is the best estimate of the true value based on these multiple analyses.

Certificate Approved by:

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Vice President of Technical Services

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