

TO  
Mr F. Verstraete  
European Commission  
Chairperson Working Group on Agricultural Contaminants in food

FROM  
Monique de Nijs  
May 26, 2020

Dear Mr Verstraete, dear Frans

On behalf of Dr. Veršilovskis I hereby send you the results of the survey on available test kits for screening T-2 and HT-2 toxins.

The study was carried out on May 11 - 13, 2020. The internet was searched, as well as the websites from known suppliers of test kits for screening of mycotoxins in food and feed.

With kind regards,

Monique de Nijs

EURL mycotoxins & plant toxins  
Wageningen Food Safety Research

Cc. Aleksandrs Veršilovskis, Hans Mol, Patrick Mulder

## Memo

Wageningen Food  
Safety Research

DATE  
May 26, 2020

SUBJECT  
EURLMP – inventory screening  
testkits T-2 and HT-2 toxins

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## Rapid test kits for screening of T2 and HT2 toxins if food/feed available on the market, May 2020

### Summary:

#### Total number of available rapid tests identified in the survey: 28

- No of **LFDs**: **8** - 6 for both (T2 and HT2) and 2 for T2 only.  
Typical LODs: 10-50 µg/kg.
- No of **ELISAs**: **17** - 7 for both (T2 and HT2) and 10 for T2 only  
Typical LODs: 5-25 µg/kg.
- No of **other rapid tests**: **3** - 2 Multiplex Mycotoxin Arrays (LOD: 7 µg/kg);  
- 1 QuickClean SPE (LOD: n.i.)

#### Typical matrices: cereals, animal feed

Other matrices: baby food, milk, meat, fish, beans, nuts, peanuts, soy, beer, silage, seeds

	Supplier	Test kit name and type	Matrix	Test range, LOD, LOQ, µg/kg, sample intake	Time necessary to perform test	Val.*	Website / instruction
1	Aokin	QuickClean columns (SPE) (includes T2/HT2) Automatic analysis with FP470/LHW03 spectrometer	• Wheat	Range 1: 70-420 Range 2: 140-840 Range 3: 280-1680 LODs: n.i. LOQs: n.i. Sample intake: 15g	≤ 30 min 10 min (sample prep) 3 min (measurement)	n.i.	<a href="https://aokin.de/wp-content/uploads/2017/07/mycontrol-AnalyseKit-zur-T2-HT2-Bestimmung.pdf">https://aokin.de/wp-content/uploads/2017/07/mycontrol-AnalyseKit-zur-T2-HT2-Bestimmung.pdf</a>
2	Bioo Scientific	T2 ELISA test kit	• Cereals • Dried • meat/fish • Feed • Milk • Seed	Range: 10-1000 LOD: 10 LOQ: 50 Sample intake: 5g Sample intake milk: 20 µL	≥ 1h 30 min (incubation1) 15 min (incubation2) 10-20 min (test)	n.i.	<a href="http://www.medibena.at/media/bioo/product-sheets/1037-01%20maxsignal%20t-2%20elisa%20test%20kit%20manual.pdf">http://www.medibena.at/media/bioo/product-sheets/1037-01%20maxsignal%20t-2%20elisa%20test%20kit%20manual.pdf</a>
3	BioVision	T2 toxin ELISA kit	• Corn • Rice • Beans • Peanuts • Feed	Range: 50-4050 LOD: 6 LOQ: n.i. Sample intake: 1g	≥ 1h 30 min (incubation1) 15 min (incubation2) 10 min (test)	n.i.	<a href="https://www.biovision.com/t-2-toxin-elisa-kit.html">https://www.biovision.com/t-2-toxin-elisa-kit.html</a>
4	Charm Sciences INC.	ROSA T2-HT2 Quantitative Test  Strip test (LFD)	• Barley • Corn • Corn Gluten Meal • Oat • Groats • Sorghum • Soybean Meal • Wheat • Wheat Flour	Range 1: 25-200 Range 2: 100-2000 LODs: 10 LOQs: n.i. Sample intake: 10-50g	≤ 30 min 10 min (test)	n.i.	<a href="https://www.charm.com/products/test-and-kits/mycotoxin-tests/rosa-lateral-flow/t-2-and-h-2-toxins-test/t2-ht2/">https://www.charm.com/products/test-and-kits/mycotoxin-tests/rosa-lateral-flow/t-2-and-h-2-toxins-test/t2-ht2/</a>
5	Creative Diagnostics	T2 toxin test kit  ELISA	• Grains • Feed	Range: 100-1000 LOD: >100 LOQ: n.i.	≤ 30 min • 5-10 min (test)	n.i.	<a href="http://img.creative-diagnostics.com/pdf/D">http://img.creative-diagnostics.com/pdf/D</a>

	Supplier	Test kit name and type	Matrix	Test range, LOD, LOQ, µg/kg, sample intake	Time necessary to perform test	Val.*	Website / instruction
				Sample intake: 2g			<a href="#">TS479.T</a> <sup>PAGE</sup> 3 of 5 <a href="#">2%20mycotoxin.pdf</a>
6	Demeditec Diagnostics GmbH	T2 toxin ELISA	<ul style="list-style-type: none"> <li>• Cereals</li> <li>• Beer</li> <li>• Milk</li> <li>• Meat</li> </ul>	Range: 17.5-1750 LODs: 5-16 LOQ: 17.5 Sample intake: 20g	≥ 1h <ul style="list-style-type: none"> <li>• 30 min (sample prep)</li> <li>• 20 min (incubation)</li> <li>• 10 min (test)</li> </ul>	n.i.	<a href="https://www.demeditec.com/en/products/t2-toxin-elisa-det2te03/ifu-det2te03-t2-toxin-elisa-180618-m.pdf">https://www.demeditec.com/en/products/t2-toxin-elisa-det2te03/ifu-det2te03-t2-toxin-elisa-180618-m.pdf</a>
7	Elabscience	T-2(T-2 Toxin) Lateral Flow Assay Kit	<ul style="list-style-type: none"> <li>• Grains</li> <li>• Feed</li> </ul>	Range: n.i. LOD: 10 LOQ: n.i. Sample intake: 2g	≤ 30 min <ul style="list-style-type: none"> <li>• 5-8 min (test)</li> </ul>	n.i.	<a href="https://www.elabscience.com/p-t_2(t_2_toxin)_lateral_flow_assay_kit-205649.html">https://www.elabscience.com/p-t_2(t_2_toxin)_lateral_flow_assay_kit-205649.html</a>
8	Elabscience	T-2(T-2 Toxin) ELISA Kit	<ul style="list-style-type: none"> <li>• Grains</li> <li>• Peanuts</li> <li>• Beans</li> <li>• Corn</li> <li>• Feed</li> <li>• Etc.</li> </ul>	Range: n.i. LOD: 6 LOQ: n.i. Sample intake: 1g	≥ 30 min <ul style="list-style-type: none"> <li>• 10 min (test)</li> <li>• 15 min (incubation)</li> </ul>	n.i.	<a href="https://www.elabscience.com/p-t_2(t_2_toxin)_elisa_kit-40679.html">https://www.elabscience.com/p-t_2(t_2_toxin)_elisa_kit-40679.html</a>
9	Envirologix	QuickTox Kit for QuickScan T-2/HT-2 Flex  Strip test (LFD)	<ul style="list-style-type: none"> <li>• Corn</li> </ul>	Standard range: 50-900 Extended range: 900-2500 High sensitivity range: 25-600 LOD: 25 LOQ: n.i. Sample intake: 20-50g	≤ 30 min <ul style="list-style-type: none"> <li>• 5 min (test)</li> </ul>	n.i.	<a href="https://www.envirologix.com/catalog/quicktox-kit-quickscan-t-2ht-2-flex/">https://www.envirologix.com/catalog/quicktox-kit-quickscan-t-2ht-2-flex/</a>
10	Eurofins technologies Tecna	Celer® T-2 ELISA	<ul style="list-style-type: none"> <li>• Cereals</li> <li>• Feed</li> </ul>	Range: n.i. LOD: 25 LOQ: n.i. Sample intake: 15g	≤ 30 min <ul style="list-style-type: none"> <li>• 20 min (incubation)</li> </ul>	n.i.	<a href="https://www.eurofins-technologies.com/celer-t-2-elisa-96-det.html">https://www.eurofins-technologies.com/celer-t-2-elisa-96-det.html</a>
11	Eurofins technologies Tecna	B Zero®T2 (for T2 and HT2) ELISA	<ul style="list-style-type: none"> <li>• Cereals</li> <li>• Feed</li> </ul>	Range 1: 25-1000 Range 2: 125-5000 LOD: 25 LOQs: 25-50 Sample intake: 5-50g	≤ 30 min <ul style="list-style-type: none"> <li>• 2*10 min (incubation)</li> </ul>	n.i.	<a href="https://tecna.eurofins-technologies.com/home/products/mycotoxins/t-2-and-ht-2-toxins/b-zero-t2/">https://tecna.eurofins-technologies.com/home/products/mycotoxins/t-2-and-ht-2-toxins/b-zero-t2/</a>
12	Eurofins technologies	SENSISpec T-2 Toxin Rapid ELISA	<ul style="list-style-type: none"> <li>• Wheat</li> <li>• Rye</li> <li>• Barley</li> <li>• Corn</li> <li>• Rice</li> <li>• Meat</li> <li>• Milk</li> <li>• Beer</li> </ul>	Range: n.i. LODs: 5-16 LOQs: n.i. Sample intake: n.i.	≥ 30 min <ul style="list-style-type: none"> <li>• 2*10 min (incubation)</li> </ul>	n.i.	<a href="https://www.eurofins-technologies.com/sensispec-t-2-toxin-rapid.html">https://www.eurofins-technologies.com/sensispec-t-2-toxin-rapid.html</a>
13	EuroProxima	T-2/HT2 Toxin ELISA	<ul style="list-style-type: none"> <li>• Cereals</li> <li>• Baby food</li> </ul>	Range: n.i. LODs: 6-12 LOQs: n.i. Sample intake: n.i.	≥ 2h <ul style="list-style-type: none"> <li>• 1h (incubation 1)</li> <li>• 30 min (incubation 2)</li> </ul>	n.i.	<a href="http://europroxima.com/wp-content/uploads/Product-information-sheet-THT117-1.pdf">http://europroxima.com/wp-content/uploads/Product-information-sheet-THT117-1.pdf</a>
14	EuroProxima	HT2/T-2 Toxin ELISA	<ul style="list-style-type: none"> <li>• Cereals</li> <li>• Silage</li> </ul>	Range: n.i. LODs: 20-50 LOQs: n.i. Sample intake: n.i.	≥ 2h <ul style="list-style-type: none"> <li>• 1h (incubation 1)</li> <li>• 30 min (incubation 2)</li> </ul>	n.i.	<a href="http://europroxima.com/wp-content/uploads/Product-information-sheet-TOX4151.pdf">http://europroxima.com/wp-content/uploads/Product-information-sheet-TOX4151.pdf</a>

	Supplier	Test kit name and type	Matrix	Test range, LOD, LOQ, µg/kg, sample intake	Time necessary to perform test	Val.*	Website / instruction
15	Nankai Biotech Co.	T-2 Rapid test  Strip test (LFD)	<ul style="list-style-type: none"> <li>• Animal feed</li> <li>• Grains</li> </ul>	Range: n.i. LODs: 50 LOQs: n.i. Sample intake: n.i.	≤ 30 min <ul style="list-style-type: none"> <li>• 15 min (test)</li> </ul>	n.i.	<a href="http://www.foodrapidtest.com/sale-9399743-t-2-rapid-test-kit.html">http://www.foodrapidtest.com/sale-9399743-t-2-rapid-test-kit.html</a>
16	Neogen	Reveal® Q+ MAX for T-2/HT-2  Strip test (LFD)	<ul style="list-style-type: none"> <li>• Variety of commodities</li> </ul>	Range: 50-500 Or 50-3000 LOD: 50 LOQ: n.i. Sample intake: 10g	≤ 30 min <ul style="list-style-type: none"> <li>• 5 min (test)</li> </ul>	n.i.	<a href="https://www.neogen.com/en-gb/categories/mycotoxins/reveal-q-plus-max-t2-ht2/">https://www.neogen.com/en-gb/categories/mycotoxins/reveal-q-plus-max-t2-ht2/</a>
17	Neogen	Reveal® Q+ for T-2/HT-2  Strip test (LFD)	<ul style="list-style-type: none"> <li>• Grain</li> <li>• Grain products</li> </ul>	Range: 50-600 LOD: 50 LOQ: n.i. Sample intake: 10g	≤ 30 min <ul style="list-style-type: none"> <li>• 6 min (test)</li> </ul>	n.i.	<a href="https://www.neogen.com/en-gb/categories/mycotoxins/reveal-q-plus-t2-ht2/">https://www.neogen.com/en-gb/categories/mycotoxins/reveal-q-plus-t2-ht2/</a>
18	Neogen	Veratox® for T-2/HT-2  ELISA	<ul style="list-style-type: none"> <li>• Wheat</li> <li>• Corn</li> <li>• Barley</li> <li>• Oats</li> <li>• Rye</li> </ul>	Range: 25-250 LOD: 10-25 LOQ: n.i. Sample intake: 10g	≥ 30 min <ul style="list-style-type: none"> <li>• 10 min (test)</li> </ul>	n.i.	<a href="https://www.neogen.com/en-gb/categories/mycotoxins/veratox-t2-ht2/">https://www.neogen.com/en-gb/categories/mycotoxins/veratox-t2-ht2/</a>
19	MyBioSource	T2 toxin  ELISA	<ul style="list-style-type: none"> <li>• Grains</li> <li>• Feed</li> </ul>	Range: 0.3-8.1 LOD: <0.3 LOQ: n.i. Sample intake: 5g	≥ 30 min <ul style="list-style-type: none"> <li>• 25 min (procedure)</li> <li>• 5 min (test)</li> </ul>	n.i. (ISO 9001: 2015)	<a href="https://www.mybiosource.com/elisa-kits/t-2-toxin-t2/920908">https://www.mybiosource.com/elisa-kits/t-2-toxin-t2/920908</a>
20	ProGnosis Biotech	SYMMETRIC T-2/HT-2 GREEN  Strip test (LFD)	<ul style="list-style-type: none"> <li>• Grains</li> <li>• Nuts</li> <li>• Cereals</li> <li>• Animal feed</li> </ul>	Range: 30-750 LOD: 20 LOQ: n.i. Sample intake: n.i.	≤ 30 min <ul style="list-style-type: none"> <li>• 5 min (test)</li> </ul>	n.i.	<a href="https://www.prognosis-biotech.com/products/ateral-flow-mycotoxins-in-food-feed/symmetric-t-2-ht-2-green/">https://www.prognosis-biotech.com/products/ateral-flow-mycotoxins-in-food-feed/symmetric-t-2-ht-2-green/</a>
21	ProGnosis Biotech	BIO-SHIELD T-2 / HT-2  ELISA	<ul style="list-style-type: none"> <li>• Grains</li> <li>• Cereals</li> <li>• Animal feed</li> </ul>	Range: 10-500 LOD: 5 LOQ: n.i. Sample intake: n.i.	≥ 30 min <ul style="list-style-type: none"> <li>• 15 min (test)</li> </ul>	n.i.	<a href="https://www.prognosis-biotech.com/products/elisa-mycotoxins-in-food-and-feed/bio-shield-t2ht-2/">https://www.prognosis-biotech.com/products/elisa-mycotoxins-in-food-and-feed/bio-shield-t2ht-2/</a>
22	R-Biopharm	RIDA®QUICK T-2 / HT-2 RQS ECO  Strip test (LFD)	<ul style="list-style-type: none"> <li>• Oat</li> <li>• Wheat</li> <li>• Corn</li> </ul>	Range T2: 50 – 1000 HT2: 1000 – 10000 in combination with the RIDA®SMART APP smartphone software LOD: n.i. LOQ: n.i. Sample intake: n.i.  Range T2: 50 – 800 HT2: 500 – 8000 with RIDA®QUICK SCAN LOD: n.i. LOQ: n.i. Sample intake: n.i.	n.i. ≤30 min <ul style="list-style-type: none"> <li>• 5 min (test)</li> </ul>	n.i.	<a href="https://food.r-biopharm.com/products/ridaquick-t-2-ht-2-rqs/">https://food.r-biopharm.com/products/ridaquick-t-2-ht-2-rqs/</a>

	Supplier	Test kit name and type	Matrix	Test range, LOD, LOQ, µg/kg, sample intake	Time necessary to perform test	Val.*	Website / instruction
23	R-Biopharm	RIDASCREEN® T-2 / HT-2 Toxin  ELISA	<ul style="list-style-type: none"> <li>• Oat</li> <li>• Wheat</li> <li>• Barley</li> <li>• Corn</li> </ul>	Range: n.i. LODs (T2 and HT2): oats 16, corn 12, wheat 21, barley 33 LOQs: n.i. Sample intake: n.i.	n.i. ≥ 1h <ul style="list-style-type: none"> <li>• Incubation time 45 min</li> </ul>	n.i.	<a href="https://food.r-biopharm.com/products/ridascreen-t-2-ht-2-toxin-2/">https://food.r-biopharm.com/products/ridascreen-t-2-ht-2-toxin-2/</a>
24	R-Biopharm	RIDASCREEN® T-2 Toxin  ELISA	<ul style="list-style-type: none"> <li>• Cereals</li> <li>• Feed</li> </ul>	Range: n.i. LOD: <5 LOQ: n.i. Sample intake: n.i.	n.i. ≥ 2 h <ul style="list-style-type: none"> <li>• Incubation time 1.5 h</li> </ul>	n.i.	<a href="https://food.r-biopharm.com/products/ridascreen-t-2-toxin/">https://food.r-biopharm.com/products/ridascreen-t-2-toxin/</a>
25	R-Biopharm	RIDASCREEN® Fast T-2 Toxin  ELISA	<ul style="list-style-type: none"> <li>• Corn</li> <li>• Corn seedings</li> <li>• Mixed feed</li> </ul>	Range: n.i. LOD: n.i. LOQ: n.i. Sample intake: n.i.	n.i. ≥30 min	n.i.	<a href="https://food.r-biopharm.com/products/ridascreenfast-t-2-toxin/">https://food.r-biopharm.com/products/ridascreenfast-t-2-toxin/</a>
26 & 27	Randox Food & Diagnostics	Myco 9 array (includes T2/HT2) or Myco 7 array (includes T2/HT2)  Multiplex Mycotoxin Array Randox biochip array technology (BAT)	<ul style="list-style-type: none"> <li>• Feed</li> </ul>	Range: n.i. LODs: 7 LOQs: 87.5 Sample intake: n.i.	≤3 h	n.i.	<a href="https://www.randoxfood.com/feed-and-cereals-analysis/myco-9-array/">https://www.randoxfood.com/feed-and-cereals-analysis/myco-9-array/</a> or <a href="https://www.randoxfood.com/feed-and-cereals-analysis/myco-7-array/">https://www.randoxfood.com/feed-and-cereals-analysis/myco-7-array/</a>
28	Romerlabs	AgraQuant® T2/HT-2 test kits  ELISA	<ul style="list-style-type: none"> <li>• Grains</li> </ul>	Range: 25-500 LODs: 10 LOQs: 20 Sample intake: n.i.	≥ 2h <ul style="list-style-type: none"> <li>• 15 min (test)</li> <li>• 15-80 min incubation</li> </ul>	n.i.	<a href="https://www.romerlabs.com/en/analytes/mycotoxins/t-2ht-2/">https://www.romerlabs.com/en/analytes/mycotoxins/t-2ht-2/</a>

\* Val.= validation; n.i. = no information