World Organisation for Animal Health

To Be Decided - - CANADA

WOAH Reference Laboratory Reports Activities 2025

This report has been submitted: 5 février 2026 20:21

LABORATORY INFORMATION

***Name of disease (or topic) for which you are a designated WOAH Reference Laboratory:**	Trichinellosis
***Address of laboratory:**	Centre for Food-borne and Animal Parasitology, Canadian Food Inspection Agency (CFIA), Saskatoon Laboratory, 116 Veterinary Road, Saskatoon, SK, Canada, S7N 2R3
***Tel:**	+13063857815
***E-mail address:**	Laura.Lalonde@inspection.gc.ca
Website:	https://inspection.canada.ca/en/about-cfia/science-and-research-cfia/our-laboratories/saskatoon/trichinellosis
***Name (including Title) of Head of Laboratory (Responsible Official):**	David McKinnon, Director, CFIA Saskatoon Laboratory
***Name (including Title and Position) of WOAH Reference Expert:**	TBD
***Which of the following defines your laboratory? Check all that apply:**	Governmental

TOR1: DIAGNOSTIC METHODS

1. Did your laboratory perform diagnostic tests for the specified disease/topic for purposes such as disease diagnosis, screening of animals for export, surveillance, etc.? (Not for quality control, proficiency testing or staff training)

Yes

Diagnostic Test	Indicated in WOAH Manual (Yes/No)	Total number of test performed last year	
Indirect diagnostic tests		Nationally	Internationally
Direct diagnostic tests		Nationally	Internationally
Artificial Digestion of muscle tissue	Yes	745	0
ITS-1 Next Generation Sequencing (Lobanov et al., 2023)	No	90	0
Multiplex PCR (Zarlenga et al., 1999)	Yes	3	0

TOR2: REFERENCE MATERIAL

2. Did your laboratory produce or supply imported standard reference reagents officially recognised by WOAH?

No

3. Did your laboratory supply standard reference reagents (nonWOAH-approved) and/or other diagnostic reagents to WOAH Members?

Yes

Type of reagent available	Related diagnostic test	Produced/ provide	Amount supplied nationally (ml, mg)	Amount supplied internationally (ml, mg)	No. of recipient WOAH Member Countries	Country of recipients
Trichinella spiralis proficiency testing samples	Artificial digestion	Produced	316	8	2	CANADA, FRANCE,

4. Did your laboratory produce vaccines?

No

5. Did your laboratory supply vaccines to WOAH Members?

TOR3: NEW PROCEDURES

6. Did your laboratory develop new diagnostic methods for the designated pathogen or disease?

No

7. Did your laboratory validate diagnostic methods according to WOAH Standards for the designated pathogen or disease?

No

8. Did your laboratory develop new vaccines for the designated pathogen or disease?

9. Did your laboratory validate vaccines according to WOAH Standards for the designated pathogen or disease?

TOR4: DIAGNOSTIC TESTING FACILITIES

10. Did your laboratory carry out diagnostic testing for other WOAH Members?

No

11. Did your laboratory provide expert advice in technical consultancies on the request of an WOAH Member?

Yes

Name of the WOAH Member Country receiving a technical consultancy	Purpose	How the advice was provided
CANADA	Ongoing training and/or proficiency assessment of industry analysts to perform the artificial digestion assay for Trichinella and to facilitate effective oversight of industry labs performing this testing on horse meat or pork to meet requirements for export and domestic food safety (i.e., ready-to-eat products)	In-person, remote (e-mail/virtual meetings)
CANADA	Ongoing assessment of Trichinella artificial digestion assay proficiency sample testing results of ISO accredited and ISO candidate laboratories for an alternative delivery system	Remote (e-mail/virtual meetings)
CANADA	Ongoing provision of scientific advice and proficiency assessment of analysts performing the artificial digestion assay for Trichinella in walrus meat, a food safety concern in the Arctic	Remote (e-mail/virtual meetings)
FRANCE	Ongoing assessment of Trichinella artificial digestion assay proficiency sample testing results	Remote (email)

TOR5: COLLABORATIVE SCIENTIFIC AND TECHNICAL STUDIES

12. Did your laboratory participate in international scientific studies in collaboration with WOAH Members other than the own?

Yes

Title of the study	Duration	Purpose of the study	Partners (Institutions)	WOAH Member Countries involved other than your country
		Refine knowledge of geographic	Cody Malone and Emily Jenkins-Western College of Veterinary Medicine, University of Saskatchewan Kimberly Beckmen-Alaska Department of	

Determination of host and geographic ranges of Trichinella spp in Alaskan wildlife	Ongoing	and host ranges of Trichinella spp. in Canadian northern territories and Alaska using novel ITS-1 genotyping approach, with the use of Illumina sequencing technology.	Fish and Game Raphaela Stimmelmayr-Department of Wildlife Management (Utqiagvik), University of Alaska Fairbanks Institute of Arctic Biology Jayne Ellis- University of Alaska Fairbanks Department of Veterinary Medicine Peter Thompson- USDA, Beltsville MD	UNITED STATES OF AMERICA

13. In exercising your activities, have you identified any regulatory research needs* relevant for WOAH?

No

TOR6: EPIZOOLOGICAL DATA

14. Did your Laboratory collect epidemiological data relevant to international disease control?

Yes

If the answer is yes, please provide details of the data collected:

Data on prevalence of Trichinella spiralis in the national swine herd were collected via digestion testing of approximately 24647 samples at our laboratory as per annual Sample Plan M215 under the CFIA National Microbiological Monitoring Program (NMMP). (Information on the NMMP M215 Sample Plan can be accessed at https://inspection.canada.ca/food-safety-for-industry/food-chemistry-and-microbiology/food-safety-testing-reports-and-journalarticles/eng/1453324778043/1453327843364).
In collaboration with the University of Saskatchewan, new data have been accrued on the geographic and host distribution of the recently described new Trichinella species, T. chanchalensis.

15. Did your laboratory disseminate epidemiological data that had been processed and analysed?

Yes

If the answer is yes, please provide details of the data collected:

Data from the CFIA T. spiralis monitoring program for breeder and market hogs and captive wild boar at slaughter are published in the National Microbiological Monitoring Program annual reports. (Annual reports can be accessed via https://inspection.canada.ca/food-safety-for-industry/food-chemistry-andmicrobiology/food-safety-testing-reports-and-journal-articles/eng/1453324778043/1453327843364).
Data on Trichinella species/genotypes found in wildlife in the Canadian North and Alaska (USA), with a focus on the geographic and host ranges of T. chanchalensis, were published in peer-reviewed scientific journals.

16. What method of dissemination of information is most often used by your laboratory? (Indicate in the appropriate box the number by category and list the details in the box)

a) Articles published in peer-reviewed journals:

3

Malone C.J., Jutha N., Awan M., Lobanov V.A., Jenkins E.J. (2026) Revealing the northern distribution of Trichinella chanchalensis: New geographic records from Nunavut and ecological perspectives. Vet Parasitol Reg Stud Reports. 67:101406.
Malone C.J., Beckmen K., Stimmelmayr R., Lobanov V.A., Voordouw M.J., Ellis J., Jenkins E.J. (2025) First report of Trichinella chanchalensis, and detection of foreign Trichinella spiralis, in wildlife in Alaska. Parasit Vectors. DOI: 10.1186/s13071-025-07142-x
Malone C.J., Harms N.J., Lobanov V.A., Scandrett W.B., Queiroz C.A., Voordouw M.J., Jung T.S., Parker S.E., Jenkins E.J. (2025) Broad host specificity of Trichinella chanchalensis and minimal interspecific competition with T. nativa and T6 in naturally co-infected hosts. Int J Parasitol. S0020-7519(25)00165-1 DOI: 10.1016/j.ijpara.2025.09.001

b) International conferences:

0

c) National conferences:

0

d) Other (Provide website address or link to appropriate information):

0

TOR7: SCIENTIFIC AND TECHNICAL TRAINING

17. Did your laboratory provide scientific and technical training to laboratory personnel from other WOAH Members?

No

TOR8: QUALITY ASSURANCE

18. Does your laboratory have a Quality Management System?

Yes

Quality management system adopted	Certificate scan (PDF, JPG, PNG format)	
ISO/IEC 17025:2017	See attached PDF	Saskatoon Lab Scope of Accreditation.pdf

19. Is your quality management system accredited?

Yes

Test for which your laboratory is accredited	Accreditation body
The double separatory funnel digestion procedure for the detection of Trichinella larvae in pork	ILAC Signatory SCC (Standards Council of Canada)
The double separatory funnel digestion procedure for the detection of Trichinella larvae in horse meat	ILAC Signatory SCC (Standards Council of Canada)
Test Method Development and Evaluation and Non-routine Testing (TMDNRT)	ILAC Signatory SCC (Standards Council of Canada)
Genotyping of Trichinella Muscle Stage Larvae by Multiplex PCR	ILAC Signatory SCC (Standards Council of Canada)

20. Does your laboratory maintain a “biorisk management system” for the pathogen and the disease concerned?

Yes

Our laboratory continues to maintain a "biorisk management system" with all commensurate policies, procedures and documentation in accordance with our Human Pathogens and Toxins Act (HPTA) licensure issued by the Public Health Agency of Canada (PHAC) and Letters of Compliance for Level 2 in-vitro and in-vivo work with terrestrial animal pathogens in accordance with the Canadian Biosafety Standard (3rd Ed.) issued by the Office of Biohazard Containment and Safety, CFIA.

TOR9: SCIENTIFIC MEETINGS

21. Did your laboratory organise scientific meetings related to the pathogen in question on behalf of WOAH?

No

22. Did your laboratory participate in scientific meetings related to the pathogen in question on behalf of WOAH?

No

TOR10: NETWORK WITH WOAH REFERENCE LABORATORIES

23. Did your laboratory exchange information with other WOAH Reference Laboratories designated for the same pathogen or disease?

Yes

24. Are you a member of a network of WOAH Reference Laboratories designated for the same pathogen?

No

25. Did you organise or participate in inter-laboratory proficiency tests with WOAH Reference Laboratories designated for the same pathogen during the past 2 years?

No
No

26. Did your laboratory collaborate with other WOAH Reference Laboratories for the same disease on scientific research projects for the diagnosis or control of the pathogen of interest?

Yes

Title of the project or contract	Scope	Name(s) of relevant WOAH Reference Laboratories
Rodent models for Trichinella spp.	Participant in information exchange (via e-mail) regarding morphometrics and establishment in rodent models of Trichinella spp.	WOAH Reference Laboratory for Trichinellosis, Istituto Superiore di Sanità, viale Regina Elena 299 00161 Roma, Italy

TOR11: OTHER INTERLABORATORY PROFICIENCY TESTING

27. Did your laboratory organise or participate in inter-laboratory proficiency tests with laboratories other than WOAH Reference Laboratories for the same pathogen during the past 2 years?

Yes

Purpose for inter-laboratory test comparisons1	Role of your reference laboratory (organizer/participant)	No. participating laboratories	Name of the test	WOAH Member Countries
Ongoing validation/verification of respective magnetic stirrer artificial digestion assays for Trichinella and of analyst competence at participating laboratories.	Organizer and participant	11	The double separatory funnel digestion procedure for the detection of Trichinella larvae in pork. The double separatory funnel digestion procedure for the detection of Trichinella larvae in horse meat.	CANADA, FRANCE,

TOR12: EXPERT CONSULTANTS

28. Did your laboratory place expert consultants at the disposal of WOAH?

No

29. Additional comments regarding your report:

No