Association of American Feed Control Officials

AAFCO 2021 Laboratory Capability Survey Results

GENERAL STATISTICS

Total Number of Responses: 24

Number of Complete Responses: 22

RESULTS BY QUESTION

This survey is being completed by:

1. Name

Number of Responses: 24

1. f
2. tom phillips
3. Regina Wixon
4. Ametra Berry
5. Brad Knapp
6. Jack Troester
7. Quintin Muenks
8. H. Dorota inerowicz
9. Dr. Travis Knight
10. Kristi McCallum
11. Christian Dimkpa
12. Deepika Curole
13. Gina DeWit
14. Jona Verreth
15. Jason Swancer
16. Treeske Ehresmann
17. Eduardo Maciel
18. Naomi High

19. Josh Arbaugh

20. Tim Darden

21. Sally Flowers

22. Virginia Greene

23. Rebecca Moseley

24. Frank Sikora

2. Agency

Number of Responses: 24

1.   f

2.   state chemist section, MD Dept of Ag

3.   South Dakota Agricultural Laboratories

4.   Department of Agriculture

5.   WI-DATCP

6.   Wyoming Dept of Agriculture Analytical Services Laboratory

7.   Missouri Dept. of Agriculture

8.   Office of Indiana State Chemist

9.   Iowa Department of Agriculture and Land Stewardship

10.   Colorado Department of Agriculture

11.   The Connecticut Agricultural Experiment Station

12.   Louisiana Department of Ag and Forestry Ag Chem Lab

13.   Michigan Department of Agriculture and Rural Development Laboratory

14.   Montana Department of Agriculture

15.   Pennsylvania Department of Agriculture - Bureau of Food Safety and Lab Services

16.   MN Department of Agriculture

17.   Idaho State Department of Agriculture Feed and Fertilizer Lab

18.   North Carolina Department of Agriculture & Consumer Services Food and Drug Protection Division

19.   West Virginia Dept. of Agriculture

20.   New Mexico Department of Agriculture

21.   Kansas Department of Agriculture Laboratory

22.   NYS Department of Agriculture and Markets

23.   Alabama Department of Agriculture & Industries

24.   University of Kentucky

3. Job Title

1.   f

2.   State Chemist

3.   Director

4.   Feed/Fertilizer Manager

5.   Chemist Supervisor

6.   Laboratory Supervisor

7.   Lab Manager

8.   Laboratory Supervisor

9.   Laboratory Bureau Chief

10.   Laboratory Manager

11.   Chief Agricultural Scientist

12.   Quality Assurance Manager

13.   Laboratory Scientist Manager

14.   Bureau Chief

15.   Chief - Lab Divison

16.   Lab Supervisor

17.   Principal Chemist

18.   Chemistry Manager 1

19.   Deputy Director

20.   Division Director

21.   Laboratory Director

22.   Supervisor Chemistry Section Food Laboratory

23.   State Chemical Laboratory Director

24.   Laboratory Director

4. State

1.   f

2.   MD

3.   SD

4.   Georgia

5.   Wisconsin

6.   Wyoming

7.   Missouri

8. Indiana

9. Iowa

10. Colorado

11. Connecticut

12. LA

13. Michigan

14. Montana

15. Pa

16. MN

17. Idaho

18. NC

19. WV

20. New Mexico

21. KS

22. NY

23. AL

24. Kentucky

5. Email address

Number of Responses: 24

1. f

2. tom.phillips@maryland.gov

3. regina.wixon@sdaglabs.com

4. ametra.berry@agr.georgia.gov

5. bradley.knapp@wisconsin.gov

6. jack.troester@wyo.gov

7. Quintin.Muenks@mda.mo.gov

8. inerowic@purdue.edu

9. Travis.Knight@iowaagriculture.gov

10. kristina.mccallum@state.co.us

11. christian.dimkpa@ct.gov

12. dcurole@ldaf.state.la.us

13. dewittg@michigan.gov

14. jverreth@mt.gov

15. jswancer@pa.gov

16. treeske.ehresmann@state.mn.us

17. eduardo.maciel@isda.idaho.gov

18. naomi.high@ncagr.gov

19. jarbaugh@wvda.us

20. tdarden@nmda.nmsu.edu

21. sally.flowers@ks.gov

22. virginia.greene@agriculture.ny.gov

23. rebecca.moseley@agi.alabama.gov

24. fsikora@uky.edu

6. Does your laboratory attend meetings and/or participate in the AAFCO Laboratory Methods and Services Committee?

Number of Responses: 23

Yes:	19	82.6%	
No (Do you mind sharing why not?):	4	17.4%	

1. We have never been able to send anybody to the meetings. Now that they are virtual we would like to attend.

2. Historically not promoted

3. some times, if they are relevant

4. Funding, lack of relevant topics.

7. Does your laboratory currently participate in the AAFCO Proficiency Testing Program https://www.aafco.org/Laboratory/Proficiency-Testing-Program

Number of Responses: 23

Yes:	22	95.7%	
No (Do you mind sharing why not?):	1	4.3%	

1. *(nothing was entered*)*

8. Please indicate your current accreditation status below

Number of Responses: 23

Currently ISO17025:2017 accredited:	18	78.3%	
Working towards ISO17025 accreditation:	3	13.0%	
No plans to become accredited:	1	4.3%	
Laboratory wants to be accredited but lack funding or resources:	1	4.3%	

Microbiology Pathogen Testing

9. Does your laboratory have a microbiology lab that performs testing on human and/or animal food?

Number of Responses: 22

Yes - please answer next question:	15	68.2%	
No - Chemical testing lab only with no capability for microbiological testing:	6	27.3%	
No - Could have capability to do microbiological testing but don't have the equipment:	1	4.5%	
No - No trained staff to perform microbiological testing:	0	0.0%	
Other (please specify):	0	0.0%	

10. If you answered "Yes", please select the pathogen(s) your laboratory currently has the capability to analyze for.

(Survey taker was allowed to select all applicable answers)
Number of Responses: 15

Salmonella sp. VIDAS Screen and FDA BAM cultural isolation/confirmation:	8	53.3%	
Salmonella sp. rt-PCR screen (BAX or other PCR) and FDA BAM cultural isolation/confirmation:	10	66.7%	
Salmonella sp. other rapid test kit and cultural isolation/confirmation:	6	40.0%	
Listeria VIDAS screen and FDA BAM cultural isolation/confirmation:	7	46.7%	
Listeria rt-PCR screen (BAX or other PCR) and FDA BAM cultural isolation/confirmation:	8	53.3%	
Listeria other rapid test kit and cultural isolation/confirmation:	6	40.0%	
Shiga toxin-producing E. coli (E. coli O157 and non-O157 STEC) rt-PCR screen and FDA BAM cultural isolation/confirmation:	8	53.3%	
E. coli O157:H7 only VIDAS Screen and FDA BAM cultural isolation/confirmation:	5	33.3%	
E. coli O157:H7 only rt-PCR (BAX or other PCR) and FDA BAM cultural isolation/confirmation:	7	46.7%	
Mold identification - microscopy:	0	0.0%	
Mold identification - PCR :	0	0.0%	
Other (please specify):	4	26.7%	

1. E.coli 3M Molecular Detection System and BAM cultural isolation/confirmation

2. Salmonella-FDA BAM culture and LAMP screening/confirmation

3. We don't use FDA BAM, but we do use FSIS MLG

4. Cyclospora, B. anthracis, BSE, S. aureus, S. enterotoxin

Toxic Metals - Please choose the appropriate response based on your lab's current status

11. Arsenic

(Survey taker was allowed to select all applicable answers)
Number of Responses: 21

Current capability:	14	66.7%	
Have capability - need training:	4	19.0%	
Have capability - need method:	3	14.3%	
No capability - need equipment:	2	9.5%	

12. Arsenic speciation

(Survey taker was allowed to select all applicable answers)
Number of Responses: 21

Current capability:	5	23.8%	
Have capability - need training:	4	19.0%	
Have capability - need method:	2	9.5%	
No capability - need equipment:	12	57.1%	

13. Cadmium

(Survey taker was allowed to select all applicable answers)
Number of Responses: 22

Current capability:	17	77.3%	
Have capability - need training:	3	13.6%	
Have capability - need method:	2	9.1%	
No capability - need equipment:	2	9.1%	

14. Chromium

(Survey taker was allowed to select all applicable answers)
Number of Responses: 21

Current capability:	15	71.4%	
Have capability - need training:	3	14.3%	
Have capability - need method:	3	14.3%	
No capability - need equipment:	2	9.5%	

15. Chromium Speciation

(Survey taker was allowed to select all applicable answers)
Number of Responses: 19

Current capability:	2	10.5%	
Have capability - need training:	4	21.1%	
Have capability - need method:	5	26.3%	
No capability - need equipment:	13	68.4%	

16. Cobalt

(Survey taker was allowed to select all applicable answers)
Number of Responses: 21

Current capability:	16	76.2%	
Have capability - need training:	3	14.3%	
Have capability - need method:	2	9.5%	
No capability - need equipment:	2	9.5%	

17. Lead

(Survey taker was allowed to select all applicable answers)
Number of Responses: 22

Current capability:	16	72.7%	
Have capability - need training:	4	18.2%	
Have capability - need method:	2	9.1%	
No capability - need equipment:	2	9.1%	

18. Nickel

(Survey taker was allowed to select all applicable answers)
Number of Responses: 21

Current capability:	16	76.2%	
Have capability - need training:	3	14.3%	
Have capability - need method:	2	9.5%	
No capability - need equipment:	2	9.5%	

19. Mercury

(Survey taker was allowed to select all applicable answers)
Number of Responses: 21

Current capability:	11	52.4%	
Have capability - need training:	5	23.8%	
Have capability - need method:	4	19.0%	
No capability - need equipment:	5	23.8%	

20. Molybdenum

(Survey taker was allowed to select all applicable answers)
Number of Responses: 21

Current capability:	17	81.0%	
Have capability - need training:	3	14.3%	
Have capability - need method:	2	9.5%	
No capability - need equipment:	1	4.8%	

21. Selenium

(Survey taker was allowed to select all applicable answers)
Number of Responses: 21

Current capability:	16	76.2%	
Have capability - need training:	3	14.3%	

| Have capability - need method: | 1 | 4.8% | |
| No capability - need equipment: | 2 | 9.5% | |

22. Selenium Speciation

(Survey taker was allowed to select all applicable answers)
Number of Responses: 17

Current capability:	0	0.0%	
Have capability - need training:	5	29.4%	
Have capability - need method:	5	29.4%	
No capability - need equipment:	12	70.6%	

23. Other (please specify)

Number of Responses: 4

1. Answers for 11-22 relate to ICP-MS detection

2. Use an ICP-OES for mineral guarantees, would need an ICP-MS for toxic metal contamination.

3. We currently analyze samples for 24 nutritive and non-nutritive metals.

4. No current requirement from customer to do speciation

Poisons/Toxins - please choose the appropriate response based on your lab's current status

24. Total Aflatoxins (AB1, AB2, AG1 and AG2)

(Survey taker was allowed to select all applicable answers)
Number of Responses: 22

Current capability:	18	81.8%	
Have capability - need training:	1	4.5%	
Have capability - need method:	3	13.6%	
No capability - need equipment:	1	4.5%	

25. Fumonisin (B1 and B2)

(Survey taker was allowed to select all applicable answers)
Number of Responses: 22

Current capability:	15	68.2%	
Have capability - need training:	3	13.6%	
Have capability - need method:	5	22.7%	
No capability - need equipment:	2	9.1%	

26. Deoxynivalenol (DON)

(Survey taker was allowed to select all applicable answers)
Number of Responses: 22

Current capability:	18	81.8%	
Have capability - need	1	4.5%	

training:

Have capability - need method:	2	9.1%
No capability - need equipment:	2	9.1%

27. Ochratoxin

(Survey taker was allowed to select all applicable answers)
Number of Responses: 22

Current capability:	11	50.0%
Have capability - need training:	5	22.7%
Have capability - need method:	8	36.4%
No capability - need equipment:	3	13.6%

28. Zearalenone

(Survey taker was allowed to select all applicable answers)
Number of Responses: 22

Current capability:	13	59.1%
Have capability - need training:	5	22.7%
Have capability - need method:	6	27.3%
No capability - need equipment:	2	9.1%

29. T2 and HT2

(Survey taker was allowed to select all applicable answers)
Number of Responses: 21

Current capability:	8	38.1%
Have capability - need training:	7	33.3%
Have capability - need method:	8	38.1%
No capability - need equipment:	3	14.3%

30. Dioxin

(Survey taker was allowed to select all applicable answers)
Number of Responses: 19

Current capability:	0	0.0%
Have capability - need training:	4	21.1%
Have capability - need method:	8	42.1%
No capability - need equipment:	11	57.9%

31. Pentobarbital

(Survey taker was allowed to select all applicable answers)
Number of Responses: 19

Current capability:	1	5.3%
Have capability - need training:	8	42.1%
Have capability - need method:	11	57.9%
No capability - need	6	31.6%

equipment:

32. Other (please specify)

Number of Responses: 1

1.   Depending on the method, we may not have the proper equipment

Vitamins & Veterinary Drugs - please choose the appropriate response based on your lab's current status

33. Vitamin D HPLC

(Survey taker was allowed to select all applicable answers)
Number of Responses: 21

Current capability:	2	9.5%	
Have capability - need training:	10	47.6%	
Have capability - need method:	15	71.4%	
No capability - need equipment:	4	19.0%	

34. Vitamin D LC/MS

(Survey taker was allowed to select all applicable answers)
Number of Responses: 20

Current capability:	1	5.0%	
Have capability - need training:	9	45.0%	
Have capability - need method:	11	55.0%	
No capability - need equipment:	7	35.0%	

35. Lasalocid HPLC

(Survey taker was allowed to select all applicable answers)
Number of Responses: 21

Current capability:	14	66.7%	
Have capability - need training:	3	14.3%	
Have capability - need method:	5	23.8%	
No capability - need equipment:	2	9.5%	

36. Lasalocid Plate Method

(Survey taker was allowed to select all applicable answers)
Number of Responses: 17

Current capability:	0	0.0%	
Have capability - need training:	2	11.8%	
Have capability - need method:	5	29.4%	
No capability - need equipment:	12	70.6%	

37. Monensin HPLC

(Survey taker was allowed to select all applicable answers)
Number of Responses: 18

Current capability:	8	44.4%	
Have capability - need training:	3	16.7%	
Have capability - need method:	6	33.3%	
No capability - need equipment:	4	22.2%	

38. Monensin LC/MS

(Survey taker was allowed to select all applicable answers)
Number of Responses: 22

Current capability:	10	45.5%	
Have capability - need training:	4	18.2%	
Have capability - need method:	7	31.8%	
No capability - need equipment:	5	22.7%	

39. Monensin Plate Method

(Survey taker was allowed to select all applicable answers)
Number of Responses: 19

Current capability:	6	31.6%	
Have capability - need training:	1	5.3%	
Have capability - need method:	2	10.5%	
No capability - need equipment:	11	57.9%	

40. Comments

Number of Responses: 2

1.   We do not routinely do any of these.

2.   Developing Vit D and A with saponification sample prep followed by UPLC-PDA detection

Drug Residues - Please choose if this testing is already being conducted in your state or is a critical need currently not being tested.

41. Drug Residues by Mass Spectroscopy

(Survey taker was allowed to select all applicable answers)
Number of Responses: 21

Current capability:	4	19.0%	
Have capability - need training:	8	38.1%	
Have capability - need method:	11	52.4%	
No capability - need equipment:	6	28.6%	

42. Comments

Number of Responses: 3

1.   Our equipment is limited to perform this on a routine basis

2.   We do not routinely do drug residues analysis

3.   We have equipment but lack personel and time to set up

Pesticide Residues - Please choose if this testing is already being conducted in your state or is a critical need currently not being tested.

43. Pesticide Residues by Mass Spectroscopy

(Survey taker was allowed to select all applicable answers)
Number of Responses: 19

Current capability:	12	63.2%	
Have capability - need training:	2	10.5%	
Have capability - need method:	5	26.3%	
No capability - need equipment:	3	15.8%	

44. Comments

Number of Responses: 5

1.   Not routinely tested, only in special cases/requests. Instrument doesn't belong to the Feed Laboratory

2.   my lab does not do pesticides, the pesticide lab does and does not participate in aafco

3.   Not under our scope of accrreditation - will need some work

4.   Would only have the capability to test pesticides on LCMSMS would need a GCMSMS to get a bigger selection of pesticides.

5.   Pesticide testing program is being rebuilt following lab relocation and associated turnover

45. Would your laboratory like to contribute to an AAFCO Laboratory Methods & Services Committee working group to validate analytical methods and/or establish best practices for testing? If so, check the area(s) of interest and please leave your contact information in the "contact information" box below.

(Survey taker was allowed to select all applicable answers)
Number of Responses: 22

Microbiology Pathogen Methods:	5	22.7%	
Toxic Metal Methods:	9	40.9%	
Poisons/Toxins:	2	9.1%	
Vitamins and Veterinary Drugs:	8	36.4%	
Drug Residues:	6	27.3%	
Pesticide Residues:	6	27.3%	
No:	8	36.4%	
Contact information::	8	36.4%	

1.   H.Dorota Inerowicz, inerowic@purdue.edu and James Bartos, jbartos@purdue.edu

2.   kristina.mccallum@state.co.us

3.   christian.dimkpa@ct.gov

4.   tdarden@nmda.nmsu.edu

5.   Sally Flowers sally.flowers@ks.gov

6. virginia.greene@agriculture.ny.gov

7. rebecca.moseley@agi.alabama.gov

8. fsikora@uky.edu