



The WeCAHN smallholders network met 15th March 2024 with veterinary practitioners, producers, provincial veterinarians, diagnosticians, and researchers in attendance.

Report Contents:

- i. Network practitioners' clinical impressions survey.
- ii. Laboratory data identifiable as originating from small-scale production.
- iii. Scan of other surveillance networks.

Review of data

i. Small ruminants:

Network veterinarians complete a quarterly survey describing the diseases they have diagnosed during the three month period under discussion.

For purposes of the network veterinarians' clinical impressions surveys, Rarely = 1-2 times from July - September 2023; Commonly = 1-2 times per month; Very frequently = 3+ times per month.

Clinical Impressions Survey (CIS) small ruminant findings:

- Coccidiosis, haemonchosis, were all described as seen Rarely by one network practitioner, and rated as stable to decreasing.

Case report: UCVM: Nubian buck with history of diarrhea and weight loss.

Case report: 7 month old buck in a flock of 10, with one breeding buck

Whole carcass submitted to UCVM DSU
Diagnoses: coccidiosis and emaciation.

Coccidiosis is a commonly seen infection with a single-celled parasite, causing diarrhea and weight loss. PARASITE CONTROL REFERENCE: HANDBOOK FOR 5-STAR PROGRAM PLAN <https://www.wecahn.ca/wecahn-tools/wecahn-information-library/Handbook-for-5-star-worm-program>

Trends and issues discussed at WeCAHN commercial small ruminant network meeting:

i. Lambs with "funny legs and neuro signs"

- One practitioner reported increase in arthrogryposis and other congenital defects.
- Discussion was largely around Cache Valley virus (CVV), a potential cause of abortions and birth defects.

CVV PAGER: <https://www.wecahn.ca/wecahn-tools/wecahn-information-library/Cache-Valley-virus-in-sheep-and-goats>

CONGENITAL DEFECTS DIAGNOSIS DISCUSSION:

QUESTION: would your clients contact you for information/diagnostic support if they encountered a congenital defect?

ANSWER 1: IF: there's only one affected animal there's no dystocia

the affected animal is born dead

THEN: the veterinarian is less likely to be called. If the veterinarian is contacted it's usually just a phone consultation.



ANSWER 2: we see these occasionally in commercial [hog barns] too. We may be consulted if it's a condition new to the producer (for shaker pigs, for example) but usually nothing beyond that.

ANSWER 3: there are lots of culls in commercial hatcheries, which don't make it beyond this point. In small flocks if there are congenital defects they are more likely to be reported to Facebook than us! And these cases can be welfare concerns.

ii. Listeriosis: the case of a commercial flock 7 month feeder lamb with signs of circling and falling to one side, which was butchered, with head ONLY submitted to lab, was presented.

Diagnosis: Listeriosis

Listeriosis is a bacterial infection causing blood poisoning and neurological signs.

REFERENCE: Listeriosis in Sheep. Factsheet. https://www.wecahn.ca/wecahn-tools/wecahn-information-library/Listeriosis_in_Sheep

ON-FARM SLAUGHTER AND AWARENESS OF POTENTIAL HAZARDS

QUESTION: do any of your clients do their own butchering? And if so, are they aware of potential hazards?

ANSWER 1: slaughter may happen in a variety of ways here [BC] including provincial abattoirs/mobile butchering/on-farm slaughter

ANSWER 2 : some of our clients do their own butchering, and they generally lack the education to make the decisions they are making. There may be some on-farm slaughtering around religious celebrations as well.

ANSWER 3: we have some clients who do their own butchering. We may ask

questions about it but suspect sometimes the answers are what they think we want to hear.

iii. Condition scoring was discussed at the commercial small ruminants network meeting.

QUESTION: ARE PRODUCERS AWARE OF THEIR ANIMALS' CONDITION?

ANSWER 1: with our small ruminant smallholder clients, depends which level you are thinking of:

- Flock: not so much and we tend to see extremes both skinny and overweight consistently across a flock, either all overweight or all underweight.
- One individual: clients will notice one unusual individual [with respect to body condition] more often.



PRODUCER REFERENCE: "WHAT'S THE SCORE? SHEEP BODY CONDITION SCORING GUIDE [https://www1.agric.gov.ab.ca/\\$department/deptdocs.nsf/all/agdex9622/\\$FILE/bcs-sheep.pdf](https://www1.agric.gov.ab.ca/$department/deptdocs.nsf/all/agdex9622/$FILE/bcs-sheep.pdf)

ANSWER 2: our small-scale swine clients are. Many of them own Kune Kunes and loss of condition is something they would be aware of.

BODY CONDITION SCORING SOWS USING 5 POINT SCALE

Score	Appearance	Pelvic Bones	Loin	Ribs
1	Emaciated	Very prominent. Deep cavity around tail head.	Vertebrae are prominent and sharp. Very narrow loin. Hollow flank.	Individual ribs are very prominent.
2	Thin	Obvious with slight cover.	Narrow loin. Flank rather hollow. Slight cover on spine, but prominent vertebrae.	Rib cage less apparent but individual ribs easily detected with slight pressure.
3	Ideal	Covered but felt with pressure.	Spine covered and rounded.	Ribs are covered but can be felt with pressure.
4	Fat	Only felt with firm pressure. No cavity around tail.	Difficult to feel vertebrae. Flank filled.	Rib cage not visible and difficult to feel.
5	Obese	Impossible to feel and huge fat deposits (hanging skin and fat).	Thick fat cover, impossible to feel bones. Flank full and rounded.	Thick fat cover, not possible to feel ribs.



Condition score 1:



Condition score 2:



Condition score 3:



Condition score 4:



Condition score 5:

Reproduced from: Body Condition Scoring For Sows. Canadian Pork Council






Available at: <https://www.cpc-ccp.com/uploads/userfiles/files/ACA-Appendix-10.pdf>

ANSWER 3: with small flocks, owner awareness varies and this is a potential area for more communications from us! Need to be aware that a 5 point scale is a crude method for flock assessment, and interpretation depends on context: ideal BCS varies with age and stage of production.

The following condition scoring guide is therefore a very broad guideline drafted for commercial poultry:

BODY CONDITION SCORING POULTRY USING 5 POINT SCALE

Body Condition Score

	<p>Score 1 – Poor condition Concave curvature with minimal palpable muscle mass over keel plate.</p>
	<p>Score 2 – Adequate condition – Slightly thin Palpable muscle mass over keel plate.</p>
	<p>Score 3 – Good, ideal condition Convex curvature, but keel bone palpable.</p>
	<p>Score 4 – Well muscled, somewhat heavy Convex curvature, but keel bone less prominent.</p>
	<p>Score 5 – Overweight Very well developed muscle mass, smooth over keel plate.</p>

Reproduced from: Chicken Handling. University of Bristol.

Available at: https://www.bristol.ac.uk/media-library/sites/vetscience/documents/clinical-skills/Chicken_Handling.pdf



Small flocks

CIS: conditions reported never to

Commonly:

- Aggression-cannibalism
- Egg yolk peritonitis
- In-lay bacterial septicemia
- Marek's Disease
- Predators
- Mites

Other: frostbite, dehydration, severe lice infestation, suspected nasal/tracheal obstruction

Recently the USDA has offered guidance to mitigate the risk of introduction of Influenza A in livestock, which includes avoiding housing multiple species together.

Influenza A in dairy cattle and other mammals 4th April 2024

A person in the United States has tested positive for highly pathogenic avian influenza (HPAI) A(H5N1) virus ("H5N1 bird flu"), as reported by Texas and confirmed by CDC. This person had exposure to dairy cattle in Texas presumed to be infected with HPAI A (H5N1) viruses. The patient reported eye redness (consistent with conjunctivitis), as their only symptom, and is recovering. The patient was told to isolate and is being treated with an antiviral drug for flu. This infection does not change the H5N1 bird flu human health risk assessment for the U.S. general public, which CDC considers to be low. <https://www.cdc.gov/media/releases/2024/p0401-avian-flu.html>

The CDC has released a technical report on whole genome sequencing of the patient's H5N1 viral isolate, concluding that this isolate genes lacked markers associated with mammalian adaptation.

Collectively, epidemiologic, and viral genomic analyses indicate that this case represents a single zoonotic event and the virus lacked changes likely to enhance transmission to mammals. <https://www.cdc.gov/flu/avianflu/spotlights/2023-2024/h5n1-analysis-texas.htm>

Testing of sick cats on some affected dairy farms in Texas and Kansas has yielded three H5N1 (HPAI) positives. <https://www.cidrap.umn.edu/avian-influenza-bird-flu/tests-confirm-avian-flu-new-mexico-dairy-farm-probe-finds-cats-positive>

The U.S. Department of Agriculture (USDA) Animal and Plant Health Inspection Service (APHIS) has confirmed detections of H5N1 in dairy herds in Texas, Kansas, Michigan, New Mexico, Idaho and Ohio.

It is important to note that, the presence of HPAI should not be considered confirmed until the NVSL analysis is complete. <https://www.aphis.usda.gov/livestock-poultry-disease/avian/avian-influenza/hpai-detections/livestock>

The WeCAHN website is one source of information for Influenza A updates in mammals: <https:wecahn.ca>

<https://wecahn.ca/wecahn-networks/hpai-in-mammals>



QUESTION: HOW FREQUENTLY DO YOU VETS SEE MULTI-SPECIES OPERATIONS AMONG YOUR SMALLHOLDING CLIENTS?

ANSWER 1: with our smallholder swine clients, most would have small number pigs, some chickens, a horse and maybe ducks . . . Most have > 1 species.

ANSWER 2: most would have more than 1, e.g. poultry plus something else. If they have 3 species, they tend to have LOTS of species.

ANSWER 3: with our small flock clients, see multispecies holdings less often. That said, it depends on why they are raising animals. If they are subsistence/back-to-the-land folks, they are more likely to have multiple species.

QUESTION: OF YOUR MULTI-SPECIES SMALLHOLDER CLIENTS, HOW CONSCIOUS ARE THEY OF POTENTIAL CROSS-SPECIES DISEASE TRANSMISSION?

ANSWER 1 : with our clients, most are not: they just enjoy having these animals.

ANSWER 2: with our [primarily] small flock clients, most are not. We [veterinarians] need to be cautious about spreading doom and gloom though. If we are just issuing warnings, and clients don't see these risks themselves, our efforts can land badly.

ANSWER 3: sometimes we are pleasantly surprised by our clients. Some smallholders will contact us for advice prior to making livestock purchases.

PROVINCIAL DIAGNOSTIC LABORATORIES

BC:

Report from Surveillance for smallholder sheep, pigs, goats, and poultry

For more information: <https://www2.gov.bc.ca/gov/content/industry/agriculture-seafood/animals-and-crops/animal-health/office-of-the-chief-veterinarian/26527#surveillance>

Between October to end of Feb 2024 – total of 23 smallholder submissions (21 clients and 16 referring clinics) from 20 cities across BC. 60% poultry, 26% swine, 13% small ruminants (NOTE: the program was extended to small ruminants in January).

Top diagnosis:

Poultry (14 cases): 1) Marek's Disease, 2) Yolk peritonitis/salpingitis, 3) respiratory diseases (MG, ORT, Infectious Coryza)

Swine and small ruminants: not enough submissions to rank diagnoses.

ALBERTA:

Report from Alberta Non-quota Non-commercial Poultry Disease Investigations

For more information: <https://www.alberta.ca/non-quota-or-non-commercial-poultry-disease-investigations>

10 cases were submitted: producers (5) and vets (5)

Chicken: 8 cases

Marek's Disease = 5 cases

Infectious Laryngotracheitis (ILT)= 1

Bacterial salpingitis = 1

Mycoplasmosis = 1

Intestinal nematodiasis (Heterakis/Ascaridia) = 1

Neoplasm = 1

Turkey: One case Histomoniasis (Blackhead)

Peacock: One case of Marek's Disease

WeCAHN contacts



www.wecahn.ca

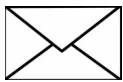


Smallholder Network

<https://www.wecahn.ca/wecahn-networks/wecahn-smallholders-network>



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Meeting takeaways

Addressing animal health problems requiring identifying them. Including condition scoring in your farm management give you powerful information for early detection of disease.

The case of the feeder lamb with clinical Listeriosis which was butchered resulted in a discussion at the WeCAHN small ruminants network which included the basic guideline: don't eat sick stuff.

While to date (5th April 2024) no cases of Influenza A have been reported in Canadian sheep, goats, or cats, the spring migration poses an increased risk of viral transmission. It's reasonable to watch for signs of milk drying up/udder infections/sharp decline in milk production in their cows, or neurological disease in neonatal goats., and call your veterinarian if you see either of these problems.

