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OMB Approved
0579-0488
EXP: 09/30/2026

UNITED STATES DEPARTMENT OF AGRICULTURE
ANIMAL AND PLANT HEALTH INSPECTION SERVICE
VETERINARY SERVICES
NATIONAL ANIMAL HEALTH MONITORING SYSTEM
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NAHMS SHEEP 2024 STUDY— VS INITIAL VISIT QUESTIONNAIRE

The information you provide will be used for statistical purposes only. Your responses will be kept confidential and any person who willfully discloses ANY identifiable information about you or your operation is subject to a jail term, a fine, or both. This survey is conducted in accordance with the Confidential Information Protection and Statistical Efficiency Act of 2018, Title III of Pub. L. No. 115-435, codified in 44 U.S.C. Ch. 35 and other applicable Federal laws. For more information on how we protect your information please visit: <https://www.nass.usda.gov/confidentiality>. **Response is voluntary.**



To access the survey electronically, use the QR code or link: https://usdaanimalhealth.gov1.qualtrics.com/jfe/form/SV_2mjfJiOmaGpUNGS

Please enter the 4-digit NAHMS Study ID: _ _ _ _

11. Are you a federal or state data collector?
 - Yes **[If yes, skip to I3.]**
 - No **[If no, go to I2.]**
12. Do you (the respondent) agree to participate in the study?
 - I agree **[If you agree, go to Section A- Inventory]**
 - I do not agree **[If you do not agree, go to Office Use Section]**
13. Which of the following would you like to do?
 - Complete the full questionnaire **[Continue to Section A- Inventory]**
 - Complete the Office Use Only Section **[Go to Office Use Section]**

Section A – Inventory

1. On your operation **today**, how many ewes do you have that are 1 year of age or older? *If none enter 0.*
 - 1+ years: ewes
 - How many of these ewes are between 1 and 2 years of age? ewes
2. During 2023, what was the **maximum number** of the following types of sheep present on the operation throughout the year? *Sheep may be counted in more than one category. For example a lamb may be counted in both the preweaned and weaned lambs categories. If none enter 0.*
 - a. Ewes 1 year and older #
 - b. Rams 1 year and older #
 - c. Preweaned lambs #
 - d. Weaned lambs #

e. Wethers (castrated ram) 1 year and older #

Section B – Breeding Management

3. For the **most recently completed lambing season**, of the **Q2a ewes** on the operation, how many were bred by the following methods? The most recently completed lambing season refers to the most recent lambing for which all lambs have been born.

For ewes bred by more than one method, give method used first. If none enter 0.

- a. Naturally by this operation's rams #
- b. Naturally by another operation's rams #
- c. By artificial insemination (AI)..... #
- d. By embryo transfer..... #
- e. Added to the operation already bred #
- f. Confirm the total number of ewes bred (Add Questions 1a through 1e) #

[If question 3f=0/none, skip to Section C (question 24).]

[If question 3e = 0/none, skip to question 5.]

- 4. Were the **Q3e ewes** added to the operation already bred kept separate from the rest of the flock until after they lambbed? Yes No
- 5. Of the **Q3f total bred ewes**, how many were first-lambing ewes? #

[If question 5=0, skip to question 7.]

- 6. Were the majority of these first-lambing ewes separated from the rest of the flock until after they lambbed? Yes No Don't know
- 7. Of these **Q3f total ewes bred**, how many had the following outcomes? *If none enter 0.*
 - a. Gave birth (lamb born dead or alive) #
 - b. Aborted (known abortion)..... #
 - c. Never became pregnant (or unknown abortion) #
 - d. Died or were removed prior to lambing..... #
 - e. Total [Should equal 3f]..... #

[If question 7a=0, skip to question 9.]

8. Of the **Q7a ewes that gave birth**, how many had multiples (twins or triplets)?.. #

[If question 7b=0, skip to question 13.]

9. Of the **Q7b ewes that aborted**, how many were first-lambing ewes? #

10. Were any of the following steps taken for aborting ewes? *Check all that apply.*

- a. Removed placentas or fetuses as soon as possible
- b. Cleaned the area by removing bedding and/or dirt
- c. Disinfected the area
- d. Physically separated ewes that aborted from other ewes
- e. None of these actions were taken

[If question 10d= not checked, skip to question 12.]

11. For the ewes that aborted and were separated from the flock, how many days were the majority of ewes separated before being returned to the flock?

- Number of days separated before returning..... # days
- Not returned to flock for rest of lambing season
- Never returned to flock

12. Were any of **Q7b abortions** suspected or confirmed by a vet or lab to be from any of the following causes?

Abortion Cause	Not suspected	Suspected, but not confirmed by a vet or lab	Confirmed by a vet or lab
a. Campylobacteriosis (vibrio abortion)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Chlamydiosis (enzootic abortion)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Toxoplasmosis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Q fever (coxiellosis)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Salmonellosis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Listeriosis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Cache Valley virus	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. Other infectious disease (specify:_____)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i. Other non-disease related causes (specify:_____)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j. Unknown cause	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

13. During 2023, were any of the following reproductive practices used on this operation? *Check all that apply.*

- a. Flushing (ewes fed extra energy ration prior to breeding season)
- b. Crutching (pre-lambing shearing)
- c. Teaser ram (not for estrus synchronization)
- d. Breeding mark such as a harness, or paste/chalk
- e. Ultrasound (pregnancy diagnosis, fetal counting)
- f. Pregnancy diagnosis by blood test
- g. Breeding soundness exam (rams)
- h. Udder palpation or bagging
- i. Embryo transfer
- j. Artificial insemination
- k. Hormones for estrus synchronization (including CIDRs)
- l. Other estrus synchronization methods, (specify: _____)
- m. None of these reproductive practices were used

[If question 13k and 13l = not checked (no estrus synchronization), skip to question 15.]

14. Did this operation synchronize estrus in its ewes for any of the following reasons? *Check all that apply.*

- a. More uniformly sized or aged lamb crop
- b. Condensed lambing to optimize labor
- c. More efficient use of facilities
- d. Market timing
- e. More efficient use of rams
- f. Artificial insemination (AI)
- g. Embryo transfer (ET)
- h. More efficient use of a veterinarian
- i. Other (specify: _____)

[If Question 13j = not checked (no artificial insemination), skip to question 16.]

15. During 2023, when artificially inseminating breeding ewes, did you use the following types of semen?

- a. Fresh semen Yes No Don't know
- b. Frozen semen Yes No Don't know
- c. Semen from rams belonging to your operation..... Yes No Don't know
- d. Semen from rams belonging to other operations..... Yes No Don't know

16. During 2023, did this operation have a defined breeding season(s) for its ewes, such as rams are kept with a group of ewes for **no longer than 4 months**? Yes No

[If question 16 = No, skip to question 19.]

17. In general, how frequently does this operation breed the majority of ewes to lamb? *Select one.*
- Less frequently than once a year Two or more defined breeding seasons per year
- Once a year Three defined breeding seasons per 2 years

[If question 17= 'Less frequently than once a year' or 'Once a year', skip to question 19].

18. During 2023, how many ewes did you breed more frequently than once a year? _____ #

19. Were any ewes bred from February to July 2023 (out-of-season breeding)?... Yes No

[If question 19=No, skip to question 21.]

20. Which of the following methods did you use for out-of-season breeding? *Check all that apply.*

- a. Genetic selection for ability to breed out of season
- b. Placing ram with ewes
- c. Regulating light
- d. CIDRs (Controlled Intravaginal Drug Release)
- e. Other hormone treatments (specify: _____)
- f. Other (specify: _____)
- g. No specific methods were used

21. During 2023, how many breeding replacement ewe and ram lambs were:

If none enter 0.

	Ewes	Rams	
a. Born and raised on this operation?	_____	_____	#
b. Acquired elsewhere?.....	_____	_____	#
c. Total?	_____	_____	#

[If question 21c Ewes = 0 (no replacement ewes) skip to question 23.]

22. At what age does your operation generally breed replacement ewes? *Select one.*

- a. Under 8 months c. 11-17 months
- b. 8-10 months d. 18 months or older

23. During 2023, did sheep on this operation have contact with sheep visiting from another operation for breeding? Yes No

Section C – Lambing Management

24. For the **most recently completed lambing season**, you reported **Q7a ewes** lambbed with full-term births (alive or dead). *Confirm this number.* _____ #

[If question 24=0, no ewes that lambbed, skip to Section D.]

25. For those **Q7a ewes** that gave birth during the most recently completed lambing season how many lambs were born alive or born dead (stillborn)? *If none enter 0.*

- a. Born alive _____ #
- b. Born dead (stillborn)..... _____ #
- c. Total _____ #

26. Of the **Q7a ewes** that gave birth (alive or dead) during the most recently completed lambing season how many lambbed in the following types of environments? *If none enter 0.*

- a. Individual lambing pen/jugs..... _____ #
- b. Barn or shed (covered but without individual pens)..... _____ #
- c. Special lambing pasture that allows increased observation and/or shelter _____ #
- d. Other fenced pasture _____ #
- e. Open range _____ #
- f. Dry lot (pen which does not allow grazing) _____ #
- g. Other (specify: _____)..... _____ #
- h. Confirm total is equal to number of ewes that gave birth, reported in 7a..... _____ #

27. During 2023, what percentage of births had someone present to help if needed? _____ %

28. During 2023, did you use video monitoring of lambing areas?

- Yes
- No: How frequently (in hours) were lambing areas checked for newborns? _____ hours

29. During 2023, did this operation use a separate area, specifically for lambing? Yes No

[If question 29= No, skip to question 34.]

30. On average, how many hours or days were ewes in the separate lambing area/pen?

Answer to nearest quarter hour if less than 1 hour.

- a. Prior to lambing: *Enter 0 if moved during or immediately after lambing.* _____ hours OR _____ days

b. After lambing: Enter 0 if removed immediately after lambing. _____ hours OR _____ days

31. During the most recent lambing period, how frequently were the lambing areas and/or jugs cleaned?

Note: Cleaning is defined as removing all bedding and fecal material and replacing with clean bedding material.

(Skip if not used) Lambing area	(Skip if not used) Jugs/individual pens for ewe-lamb pairs
<input type="checkbox"/> Never cleaned	<input type="checkbox"/> Never cleaned
<input type="checkbox"/> Cleaned once at the end of the lambing season	<input type="checkbox"/> Cleaned once at the end of the lambing season
<input type="checkbox"/> Cleaned multiple times throughout the lambing season	<input type="checkbox"/> Cleaned multiple times throughout the lambing season
<input type="checkbox"/> Cleaned after each lambing	<input type="checkbox"/> Cleaned after each lambing
<input type="checkbox"/> Other (specify: _____)	<input type="checkbox"/> Other (specify: _____)

32. During the most recent lambing period, how frequently were the lambing areas and jugs disinfected?

Note: A chemical disinfectant includes: 1:10 bleach dilution, phenolic product (1 Stroke Environ® or SynPhenol-3®), an accelerated hydrogen peroxide product (Intervention®), or lime.

(Skip if not used) Lambing area	(Skip if not used) Jugs/individual pens for ewe-lamb pairs
<input type="checkbox"/> Never disinfected	<input type="checkbox"/> Never disinfected
<input type="checkbox"/> Disinfected once at the end of the lambing season	<input type="checkbox"/> Disinfected once at the end of the lambing season
<input type="checkbox"/> Disinfected multiple times throughout the lambing season	<input type="checkbox"/> Disinfected multiple times throughout the lambing season
<input type="checkbox"/> Disinfected after each lambing	<input type="checkbox"/> Disinfected after each lambing
<input type="checkbox"/> Other (specify: _____)	<input type="checkbox"/> Other (specify: _____)

33. During 2023, did you use the lambing area for sick ewes at the following times? *Check all that apply.*

During lambing At other times of the year Lambing area not used for sick ewes

34. During 2023, were placentas (afterbirths) usually removed from the area where the ewes lambed?

Yes No

[If question 34 = No, skip to question 37.]

35. What was the average length of time (in hours) placentas were left on the ground before removal?

_____ hours **OR**

Continuous monitoring and removed immediately

36. During 2023, which of the following best describes how placentas were usually disposed? *Select one.*

- Buried Composted Threw out for carnivores
 Burned/incinerated Disposed of in landfill/dump Other (specify: _____)

37. How many of the **Q7a lambing ewes** had clinical mastitis (abnormal milk or swollen udder)? _____ #

OR Don't know

38. Was the lambing rate of this last completed lamb crop higher, about the same, or lower than your normal or average lambing rate?

- Higher
 About the same
 Lower
 No lambing rate considered

[If question 38 = 'Higher', 'About the same', or 'No lambing rate considered' skip to Section D.]

39. Which of the following best describes the main reason your last lambing rate was lower than expected? *Select one.*

- Open ewes (bred but did not take/early abortion) Ram fertility
 Known abortions Other (specify: _____)
 Lamb deaths (include stillborn lambs) Don't know
 Reduced twinning/triplets

Section D – Lamb Crop Management

40. During 2023, how many lambs were born alive and born dead (stillborn)? *If none enter 0.*

- a. Born alive _____ #
b. Born dead (stillborn)..... _____ #
c. Total _____ #

Check here if number born dead (stillborn) is unknown, but still fill in number born alive.

If question 40c=0 (no lambs born during 2023) skip to Section E.]

41. During 2023, of the **Q40a lambs born alive**, how many were or are expected to be weaned? _____ #

42. During 2023, of the **Q40a lambs born alive**, how many were or are expected to be docked? _____ #

43. Of the **Q40c total lambs born** in 2023, how many were born during the following months?

If none enter 0.

- a. January _____ #
- b. February _____ #
- c. March _____ #
- d. April _____ #
- e. May _____ #
- f. June _____ #
- g. July _____ #
- h. August _____ #
- i. September _____ #
- j. October _____ #
- k. November _____ #
- l. December _____ #
- m. Total-Confirm it is equal to 40c (total lambs born) _____ #

44. During 2023, how often were navels dipped on newborn lambs with a chlorhexidine or iodine solution? *Select one.*

- Always
- Sometimes
- Never

45. During 2023, how many of the **Q40a newborn lambs** received colostrum by the following methods?

If none enter 0.

- a. Hand feeding only; lambs were separated from the mothers immediately after birth and hand fed by a teat feeder/bottle/tube feeder, etc. _____ head
- b. Both nursed the ewe and hand feeding _____ head
- c. Nursed the ewe only _____ head
- d. Total-Should equal 40a _____ head

[If question 45a=0 and 45b=0 (no hand feeding of colostrum) skip to question 50.]

46. How many hours following birth were handfed newborn lambs typically given their first colostrum?

If <1 hour, enter closest quarter hour. _____ hours OR Fed immediately OR Nursed ewe first

47. How many ounces of colostrum was normally given to newborn lambs at the first feeding?
_____ oz OR Nursed ewe first

48. During 2023, were any of the following colostrum sources used? *Check all that apply.*

- a. Individual sheep colostrum from this operation
- b. Pooled (mixed from multiple ewes) colostrum from this operation
- c. Liquid sheep colostrum from outside source (individual or pooled)
- d. Cow colostrum: Was it from a herd tested for Johne's disease? Yes No Don't know
- e. Goat colostrum: Was it from a herd tested for Johne's disease? Yes No Don't know
- f. Commercial colostrum replacer
- g. Commercial colostrum supplements
- h. Other (specify: _____)

[If question 48a-e=not checked (no livestock sourced used), skip to question 50.]

49. Were livestock colostrum sources usually heat treated/pasteurized prior to feeding? Yes No

50. For livestock sources, what was the primary method used to store colostrum? *Select one.*

- Do not store colostrum
- Stored without refrigeration
- Stored in a freezer
- Other (specify: _____)
- Stored in a refrigerator

51. During 2023, how many of the **Q40a newborn lambs** received milk or milk replacer from the following sources?

- a. Milk or milk replacer from other sources only (not nursing the ewe) _____ head
- b. Nursed the ewe and were given milk or milk replacer from other sources _____ head
- c. Nursed ewe only _____ head
- d. Total-Should equal 40a _____ head

[If question 51a=0 and 51b=0 (no liquid diet from other sources), skip to question 58.]

52. During 2023, were any of the following sources of milk or milk replacer used? *Check all that apply.*

- a. Individual sheep milk from this operation
- b. Pooled (mixed from multiple ewes) sheep milk from this operation
- c. Liquid sheep milk from outside source (individual or pooled)
- d. Cow milk: Was it from a herd tested for Johne's disease? Yes No Don't know
- e. Goat milk: Was it from a herd tested for Johne's disease? Yes No Don't know
- f. Commercial milk replacer

g. Other (specify: _____)

[If question 52a-e =not checked (no livestock sources used), skip to question 54.]

53. Was the supplemented fresh milk from livestock sources pasteurized?..... Yes No

[If question 52f=not checked (no commercial milk replacer used),skip to question 55.]

54. For the commercial milk replacer used, were any of the listed medications in the milk replacer?

Check all that apply.

Deccox® (decoquinate)

NT, Neo-Terramycin®, Neo-Oxy (neomycin and oxytetracycline)

Bovatec® (lasalocid)

Other (specify: _____)

No medications were in the milk replacer

Unknown if there were medications in the milk replacer

55. What was the primary equipment used to feed lambs that were hand fed? *Select one.*

Bottle

In-line milk feeding system (milk machine, LacTec, Forster)

Bucket

Other (specify: _____)

Trough or mob feeder (milk bar)

56. During 2023, how frequently was milk feeding equipment **cleaned**? *Select one.*

Note: cleaning means it is rinsed with water and soap.

Never cleaned

Once a day

After the lambs were weaned and moved

After each feeding

Less than once a day

Other (specify: _____)

57. During 2023, how frequently was milk feeding equipment **disinfected**? *Select one.*

Note: A chemical disinfectant includes: 1:10 bleach dilution, phenolic product (1 Stroke Environ® or SynPhenol-3®) or an accelerated hydrogen peroxide product (Intervention®).

Never disinfected

Once a day

After the lambs were weaned and moved

After each feeding

Less than once a day

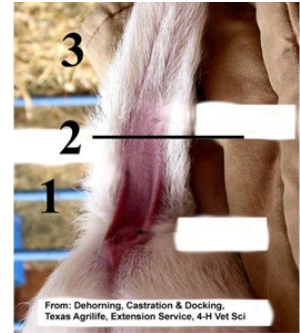
Other (specify: _____)

58. During 2023, what was the average age (in days) of the majority of lambs when they first had access to creep feed? _____ days **OR** No creep feed provided

[If question 42 = 0 (no lambs docked), skip to question 63.]

59. For lambs that were docked, which number in the picture best describes the length of the majority of lambs' tails after docking? *Select one.*

- 1. Shorter than the caudal fold
- 2. At the caudal fold
- 3. Longer than the caudal fold



60. What was the average age (in days) when lambs' tails were docked?
days

61. What was the primary method of tail docking? *Select one.*

- Rubber band (elastator band)
- Scalpel/knife
- Hot docking iron
- Other (specify: _____)
- Clamp/burdizzo (crush and cut)

62. Were analgesics or anesthetics routinely used and who completed the majority of the tail dockings?
Select one.

- Yes, and the majority were done by a veterinarian
- Yes, and the majority were done by operation personnel
- No, and the majority were done by a veterinarian
- No, and the majority were done by operation personnel
- Unknown use of analgesics and the majority were done by a veterinarian
- Unknown use of analgesics and the majority were done by operation personnel

63. During 2023, how many ram lambs were or will be castrated? _____ head **OR**

- All rams castrated
- N/A – no rams born

[If question 63 = 0 castrated or N/A- no rams born, skip to question 67.]

64. What was the average age (in days) at which these ram lambs were castrated? ... _____ days

65. Which of the following best describes the primary method of castration used on this operation?

Select one.

- Rubber band (elastator band)
- Remove testicles with a blade
- Clamp/burdizzo/emasculator (crush cords)
- Other (specify: _____)

66. Were analgesics or anesthetics routinely used and who completed the majority of the castrations?

Select one.

- Yes, and the majority were done by a veterinarian
- Yes, and the majority were done by operation personnel
- No, and the majority were done by a veterinarian
- No, and the majority were done by operation personnel
- Unknown use of analgesics and the majority were done by a veterinarian
- Unknown use of analgesics and the majority were done by operation personnel

67. During 2023, when lambs were weaned, what was their average age and weight?

- a. Average age (in months)..... _____ months
- b. Average weight (in pounds) _____ pounds

68. Of the **Q41 weaned lambs**, how many were sold? *If none enter 0.*

Include lambs weaned at the time of removal from the operation. _____ head

[If question 68 = 0, skip to question 70.]

69. What was the average age and weight of these lambs when sold?

- a. Average age (in months) _____ months
- b. Average weight (in pounds) _____ pounds

70. During 2023, did this operation have any lambs sold or moved directly to a feedlot? Yes No

[If question 70 = No, skip to Section E (question 72).]

71. For the majority of lambs sold or moved to a feedlot, which best describes this operation's ownership?

Select one.

- Retained complete ownership
- Retained partial ownership
- Retained no ownership

Section E – Culling Management

72. During 2023, how many cull breeding ewes and rams were permanently removed from this operation? *If none enter 0.*

- a. Culled ewes _____ head

b. Culled rams _____ head

[If question 72a and 72b=0, skip to Section F (question 77).]

[If question 72a =0, skip to question 75.]

73. How many of the **Q72a culled breeding ewes** were removed due to the following primary issues?

Include each animal only once. If none enter 0.

Ewes

- a. Old age/teeth problems..... _____ head
- b. Low milk production _____ head
- c. Less desirable genetics (conformational faults, small young, new genetics, wool or growth rates, parasite resistance, etc.) _____ head
- d. Single lamb births..... _____ head
- e. Poor mothering..... _____ head
- f. Failure to lamb (open or aborted) or other reproductive problems _____ head
- g. High somatic cell count _____ head
- h. Economic issues (for example, drought, flock reduction, market conditions).... _____ head
- i. Illness _____ head
 - i. Mastitis (including hard bag syndrome)..... _____ head
 - ii. Thin or unthrifty..... _____ head
 - iii. Neurological signs (loss of coordination, staggering, swaying, falling down, high stepping of forelegs, or stiff rear legs, lip smacking, or similar)..... _____ head
 - iv. Internal parasites, high fecal egg count, or based on FAMACHA score _____ head
 - v. Respiratory problems (pneumonia, coughing, runny nose, etc.) _____ head
 - vi. Pregnancy Toxemia..... _____ head
 - vii. Other illness (specify: _____)..... _____ head
- j. Other (specify: _____) _____ head

74. What was the average age in years of these culled ewes? _____ Years

[If question 72b = 0 skip to Section F (question 77).]

75. How many of the **Q72b culled breeding rams** were removed due to the following primary issues?

Include each animal only once. If none enter 0.

Rams

- a. Old age/teeth problems..... _____ head

- b. Low productivity _____ head
- c. Less desirable genetics (conformational faults, small young, new genetics, wool or growth rates, parasite resistance, etc.) _____ head
- d. Buck breeding performance _____ head
- e. Economic issues (for example, drought, herd reduction, market conditions).... _____ head
- f. Poor disposition (mean, bad behavior, etc.) _____ head
- g. Illness _____ head
 - i. Thin or unthrifty..... _____ head
 - ii. Neurological signs (loss of coordination, staggering, swaying, falling down, high stepping of forelegs, or stiff rear legs, lip smacking, or similar)..... _____ head
 - iii. Internal parasites, high fecal egg count, or based on FAMACHA score _____ head
 - iv. Respiratory problems (pneumonia, coughing, runny nose, etc.) _____ head
 - v. Other illness (specify: _____) _____ head
- h. Other (specify: _____) _____ head

76. What was the average age in years of these culled rams? _____ Years

Section F – Biosecurity

77. During 2023, did any paid or unpaid workers have sheep or other livestock at their home off this operation? Yes No Don't know

78. During 2023, were any of the following domestic animals on this operation at any time?

Check all that apply.

- | | |
|---|---|
| <input type="checkbox"/> a. Goats | <input type="checkbox"/> h. Captive deer, elk, or other exotic hoof stock |
| <input type="checkbox"/> b. Cattle | <input type="checkbox"/> i. Dogs |
| <input type="checkbox"/> c. Horses, donkeys | <input type="checkbox"/> j. Outdoor or indoor/outdoor domestic cats |
| <input type="checkbox"/> d. Llamas, alpacas | <input type="checkbox"/> k. Feral or stray cats |
| <input type="checkbox"/> e. Pigs | <input type="checkbox"/> l. Litters of kittens |
| <input type="checkbox"/> f. Poultry (chickens, turkeys, etc.) | <input type="checkbox"/> m. None of the listed animals were present |
| <input type="checkbox"/> g. Bison | |

[If question 78i = not checked (no dogs) skip to question 82.]

79. Are dogs on the operation dewormed at least annually?..... Yes No

80. Do the dogs eat sheep carcasses?..... Yes No

81. Are the dogs vaccinated against rabies? Yes No

[If question 78j, k, l = not checked (not cats) skip to question 83.]

82. Were the contents of a cat litter box discarded into sheep-raising areas? Yes No

83. During 2023, were any of the following domestic animals on adjacent operations where fence-line contact was possible? *Check all that apply.*

- Sheep
- Goats
- Cattle
- Horses, donkeys
- Llamas, alpacas
- Pigs
- Poultry (chickens, turkeys, or similar)
- Bison
- Captive deer, elk, or other exotic hoof stock
- Dogs
- None of the listed animals were on adjacent operations

84. During 2023, were any of the following wild animals and/or signs of wild animals (scat, tracks, or similar) observed on this operation or in adjacent areas? *Check all that apply.*

	On this operation?	On adjacent property?
a. Wild goats	<input type="checkbox"/>	<input type="checkbox"/>
b. Bighorn sheep	<input type="checkbox"/>	<input type="checkbox"/>
c. Feral swine or wild boars	<input type="checkbox"/>	<input type="checkbox"/>
d. Deer, elk, or other hoof stock	<input type="checkbox"/>	<input type="checkbox"/>
e. Raccoons, skunks, or opossums	<input type="checkbox"/>	<input type="checkbox"/>
f. Predators (for example, coyotes, bears, wolves)	<input type="checkbox"/>	<input type="checkbox"/>
g. Wild or exotic cats (for example bobcats, mountain lions)	<input type="checkbox"/>	<input type="checkbox"/>
h. None of the listed animals were observed	<input type="checkbox"/>	<input type="checkbox"/>

85. During 2023, were any of the following methods used on this operation specifically to control rats and mice? *Check all that apply.*

- Traps, baits, and/or poison
- Professional exterminator
- Dogs or cats
- Other (specify: _____)
- No rodent control methods were used

86. During 2023, which best describes how you isolated sick sheep from the rest of the flock? *Select one.*

- Never isolated sick sheep
- Occasionally isolated sick sheep depending on the illness or the severity of the illness
- Always isolated sick sheep
- No sick sheep during 2023

[If question 86 = 'Never isolated' or 'No sick sheep during 2023', skip to question 90.]

87. Were these sick sheep usually isolated in any of the following areas? *Select one.*

- In a pen specifically for sick animals but located in the same housing area as other sheep
- In a separate covered structure
- In a separate fenced area outside
- In another isolated area (specify: _____)

88. For isolated sick animals during 2023, which of the following best describes how frequently the area was **cleaned**? *Select one.*

Note: cleaning means at least all bedding material removed

- | | |
|--|--|
| <input type="checkbox"/> Never cleaned | <input type="checkbox"/> Monthly |
| <input type="checkbox"/> Cleaned after each sick animal left | <input type="checkbox"/> Cleaned, but had no set time period |
| <input type="checkbox"/> Weekly | <input type="checkbox"/> Other (specify _____) |

89. For isolated sick animals during 2023, which of the following best describes how frequently the area was **disinfected**? *Select one.*

Note: A chemical disinfectant includes: 1:10 bleach dilution, phenolic product (1 Stroke Environ® or SynPhenol-3®) or an accelerated hydrogen peroxide product (Intervention®) or lime.

- | | |
|--|--|
| <input type="checkbox"/> Never | <input type="checkbox"/> Monthly |
| <input type="checkbox"/> Disinfected after each sick animal left | <input type="checkbox"/> Disinfected, but had no set time period |
| <input type="checkbox"/> Weekly | <input type="checkbox"/> Other (specify _____) |

90. During 2023, were any sheep given any injections, such as for vaccines, to give antibiotics, etc.?

- Yes No

[If question 90 = No, skip to question 96.]

91. For each sheep injected, was a new needle used? Yes No

[If question 91 = Yes, skip to question 93.]

92. Were the needles chemically disinfected with a solution, such as Betadine, Nolvasan, or bleach between sheep? Yes No

93. Of all injections administered to sheep, what percentage were administered by the following individuals? *If none enter 0. Total must equal 100%.*

- a. Farm personnel _____ %
- b. Veterinarian _____ %
- c. Other (specify: _____) _____ %

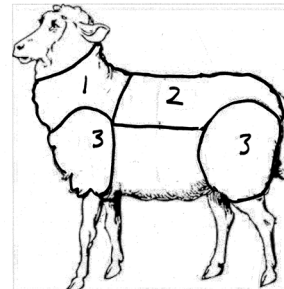
94. Of all injections administered to sheep, what percentage were given by the following routes? *If none enter 0. Total must equal 100%.*

- a. Subcutaneous (SQ) _____ %
- b. Intramuscular (IM) _____ %
- c. Intravenous (IV) _____ %

[If question 94b = 0 (no intramuscular injections), skip to question 96.]

95. Of the intramuscular injections given to sheep, which number in the picture best describes the primary location injected? *Select one.*

- (1) Neck
- (2) Loin
- (3) Leg
- Other location (specify: _____)



96. Which of the following categories best describes your knowledge of the Sheep Safety and Quality Assurance (SSQA) program? *Select one.*

- Had not heard of the SSQA program before this study
- Have heard about the SSQA program, but not certified/educated
- Certified/educated (at any level) through the SSQA program

97. During 2023, did sheep have access to any surface water (for example, ponds, irrigation ditches, streams, creeks, or similar)? Yes No

98. During 2023, which of the following best describes the primary housing structures used for the majority of ewes for each of the listed timeframes? *Check one only for each row.*

	Structure with four walls and	Structure with four walls and	Structure with roof and three	No structure

	roof with door <u>closed</u> most of the time	roof with door <u>open</u> most of the time	or fewer walls, for example, loafing shed	
a. During winter	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. During summer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. For lambing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

99. During 2023, which of the following best describes the surface moisture of the ground or flooring that sheep stood on most of the time during the listed seasons? *Check one only for each row.*

	Usually dry	Wet, but less than half the time	Wet about half the time	Wet more than half the time, but no standing water	Usually standing water or slurry
a. Winter/Spring	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Summer/Fall	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

100. During 2023, did this operation share any equipment with other livestock owners (for example, tractors, feeding equipment, manure spreaders, trailers, clippers, hoof trimmers, dehorner)?

..... Yes No

[If question 100= No, skip to Section G (question 102).]

101. Was shared equipment cleaned prior to use on your operation? Yes No

a. If **Yes**, which of the following best describes this operation's cleaning procedures? *Select one.*

Wash equipment with water (with or without soap) or steam only

Chemically disinfect only

Wash and chemically disinfect equipment

Other (specify: _____)

Section G – Sheep Health Management

102. How familiar are you with ovine progressive pneumonia (OPP)? *Select one.*

Very familiar Somewhat familiar Heard of name only Never heard of it

[If question 102 = 'Heard of name only' or 'Never heard of it', skip to question 107.]

103. Do you have a current flock health management program specifically to control or prevent OPP in your flock? Yes No

[If question 103 = No, skip to question 107.]

104. During 2023, how many sheep and lambs on your operation were tested for OPP? _____ #
If none enter 0.

[If question 104 = 0, skip to question 106.]

105. Of those tested sheep, how many were seropositive for OPP? #
If none enter 0.

106. Were any of the following methods used to control or prevent OPP in your flock?

Check all that apply.

- a. Remove all seropositive sheep and lambs from flock (sold and/or isolated in separate facilities)
- b. Keep flock isolated from infected sheep or goats
- c. Add only seronegative sheep to the flock
- d. Add only sheep from OPP-seronegative flocks
- e. Maintain a closed flock (no new additions)
- f. Test goats for CAE (caprine arthritis encephalitis)
- g. Other methods (specify: _____)

107. Which of the following best describes the current OPP status of your flock? *Select one.*

- Currently infected with OPP
- Never suspected OPP in the flock
- Previously infected with OPP but now negative
- Do not know current OPP status
- Suspect OPP in the flock, but not confirmed

108. During 2023, how many sheep and lambs in your flock had sore mouth? *If none enter 0.* _____ #
 Don't know

[If question 108= 0 or 'Don't know', skip to question 111.]

109. How many of those **Q108 sheep and lambs** with sore mouth died?..... #

110. During 2023, how often did you use the following practices when handling sheep with scabs around the mouth, feet, or udder?

	Always	Sometimes	Never
a. Wore gloves when handling sheep with scabs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Washed hands with soap and water after touching sheep with scabs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

c. Covered your cuts and scrapes when handling sheep with scabs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Obtained veterinary consultation when sheep had scabs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

111. During 2023, did any sheep on your operation have abscesses, boils, or lumps typically on the head, neck, shoulder, or upper rear legs?..... Yes No

[If question 111=No, skip to question 117.]

112. During 2023, how many sheep had any abscesses, boils, or lumps? _____# **OR** Don't know

113. Were any of the following actions taken for sheep with abscesses, boils, or lumps? *Check all that apply.*

- a. Call the veterinarian
- b. Cull the sheep to market or slaughter
- c. Isolate the sheep
- d. Drain or lance the lumps
- e. Lab tests for CL/abscesses (culture, SHI test)
- f. Treat with antibiotics
- g. Inject a substance into the abscess/lump
- h. Test sheep for CL titers (blood test)
- i. Other (specify: _____)
- i. No actions taken

[If question 113c= not checked (did not isolate due to abscesses), skip to question 115.]

114. For sheep that were isolated due to abscesses, boils, or lumps, how many days, on average, were they isolated? _____ days
 _____ days

[If question 113d= not checked (did not drain of lance lumps), skip to question 116.]

115. For abscesses that were drained or lanced, was the drainage disposed of away from the sheep raising areas? Yes No

[If question 113h= not checked (did not test sheep for CL titers), skip to question 117.]

116. For the sheep that were tested for CL titers, when were they tested? *Check all that apply.*

- As replacements only, prior to bringing them onto the operation
- Annually
- After leaving and returning to the operation
- Other (specify: _____)

117. During 2023, did you have any mature sheep (rams or ewes) with progressive weight loss that did not respond with increased nutrition? Yes No

118. Do you currently have any flock health management or certification program(s) specifically to control or prevent Johne's disease in your flock? Yes No

119. Which of the following measures do you practice to specifically prevent Johne's disease in your flock?

- a. Test any sheep Johne's disease
- b. Test any goats or cows for Johne's disease
- c. Obtain newly acquired breeding ewes and rams from known Johne's-negative flocks
- d. Use known, reputable source(s) of sheep (not sale barn)
- e. Prohibit contact with sheep from other operations
- f. Do not expose lambs to feces of infected or unknown status ewes
- g. Conduct definitive tests for Johne's disease at necropsy
- h. Other measures (specify: _____)
- i. No measures practiced specifically to prevent Johne's disease

[If Question 119a = not checked (do not test sheep for Johne's disease), skip to question 122.]

120. For any sheep that were tested for Johne's disease, what type of test(s) were used?

Check all that apply.

- Blood
- Fecal
- Other (specify: _____)

121. For any sheep that tested positive for Johne's disease, which of the following actions were taken?

Check all that apply.

- Quarantine
- Cull
- Other (specify: _____)
- No action taken
- N/A (no positive sheep)

122. In general, do weaned lambs less than 12 months of age share common feed OR water sources with adult sheep? Yes No No weaned lambs

123. Do you ever place thin ewes with younger sheep to encourage or increase the ewes' feed intake or to improve the ewes' nutrition? Yes No

124. During 2023, did any sheep or lambs on your operation receive any vaccines? Yes No

[If question 124= No, skip to Section H.]

125. During 2023, which of the following vaccines were used for each of the listed age classes?

	Preweaned lambs	Weaned lambs	Adult ewes	Adult rams
Which of the following age groups received vaccines in 2023? [If a group did not receive a vaccine, SKIP to the next one.]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
a. CLOSTRIDIAL vaccines?	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
If yes, check all clostridium vaccines administered:				
i. Clostridium type C and D for enterotoxemia (overeating disease, bloody scours, pulpy kidney disease)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ii. Tetanus (<i>Cl. tetani</i>)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iii. 7 or 8 way vaccine (Blackleg, malignant edema, <i>C. chauvoei</i> and/or <i>C. septicum</i>) and/or <i>C. novyi</i> and/or <i>C. Sordellii</i> and C/D/T	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. RESPIRATORY vaccines?	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
If yes, check all respiratory vaccines administered:				
i. Pneumonia (<i>Pasteurella/Mannheimia</i>)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ii. BRSV (Bovine Respiratory Syncytial Virus)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iii. Other respiratory vaccines (specify: _____)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. ANTI-ABORTION vaccines?			<input type="checkbox"/> Yes <input type="checkbox"/> No	
If yes, check all anti-abortion administered:				
i. EAE (<i>Chlamydia abortus</i>)			<input type="checkbox"/>	
ii. Leptospirosis			<input type="checkbox"/>	

iii. <i>Campylobacter fetus/jejuni</i> (vibrio)			<input type="checkbox"/>	
d. OTHER vaccines	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
If yes, check all other vaccines administered:				
i. <i>Caseous Lymphadenitis</i> (CL, abscesses, lumpy jaw)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ii. Sore mouth (contagious ecthyma)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iii. Rabies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iv. Scour/diarrhea control (<i>E. coli</i> , Rotavirus)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
v. FootVax (footrot vaccine)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
vi. Other vaccines (specify: _____)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

[If question 125a.i. and 125a.iii. (*Clostridium C* and *D*) = not used in ewes, skip to question 127.]

126. During 2023, how frequently were adult ewes vaccinated for *Clostridium C* and *D*? *Select one.*

- 3 to 4 times a year Twice a year Annually Less often than annually

[If question 125d.v. (footvax vaccine)= not used, skip to section H.]

127. During 2023, how often did you vaccinate sheep with FootVax? *Select one.*

- Once a year Twice a year More frequently than twice a year

128. During 2023, when did you choose to vaccinate sheep with FootVax? *Check all that apply.*

- On a preventative schedule During a footrot outbreak
 Before an expected peak in footrot Other (specify: _____)

Section H – Parasite Control

129. Which of the following categories best describes your knowledge or use of the FAMACHA© card/eye color score? *Select one.*

- Had not heard of FAMACHA before this study
 Have seen or heard about FAMACHA, but do not use
 Have used FAMACHA some
 Regularly use FAMACHA as management tool

130. Which of the following categories best describes your knowledge or use of the Five Point Check©? *Select one.*

Note: The Five Point Check© uses the FAMACHA© card and other considerations, including signs of bottle jaw, body condition score, presence of diarrhea/scours, and signs of nasal bots.

- Had not heard of the Five Point Check© before this study
- Have heard about the Five Point Check©, but do not use
- Have used the Five Point check© some
- Regularly use the Five Point Check© as management tool

[If question 129 = 'Have not heard of' or 'Do not use', skip to question 132.]

131. Do you use FAMACHA© card or the Five Point Check© for the following reasons?

Check all that apply.

- To identify worm-susceptible sheep or lambs to cull
- Selectively deworm sheep or lambs (ex., only sheep with certain scores are dewormed)
- Other (specify: _____)

132. During 2023, how many sheep or lambs were tested for internal parasites by any fecal test method?

If none enter 0. #

[If question 132=0, skip to question 135.]

133. Of the **Q132 sheep and lambs** that were tested, how many of the following tests were performed?

Count each test separately. For example, if you have 20 sheep and each one was tested twice by fecal flotation, put "40". If none enter 0.

- a. Fecal flotation #
- b. Fecal egg count (not as part of a fecal egg count reduction test) #
- c. Fecal egg count reduction test *Count pre- and post-deworming as one.* #
- d. DrenchRite© (lab test for resistance to dewormers)..... #
- e. Other (specify: _____)..... #

[If question 133a, b, and c= 0 (no fecal floats or FEC/FECRTs), skip to question 135.]

134. During 2023, who completed the majority of the fecal flotations or fecal egg counts? *Select one.*

- Self or employee on the operation Private laboratory
- Private veterinarian Other (specify: _____)
- State/university laboratory

135. During the **previous 3 years**, did you deworm any sheep with pharmaceutical/commercial

dewormers? Yes No

[If question 135=No, skip to question 139.]

136. During 2023, what percentage of **lambs** on this operation were:

- a. Not dewormed? _____ %
 - b. Dewormed once? _____ %
 - c. Dewormed twice?..... _____ %
 - d. Dewormed three or more times? _____ %
- Should total to 100%*

137. During 2023, what percentage of **sheep** on this operation were:

- a. Not dewormed?v8018 _____ %
 - b. Dewormed once?v8019 _____ %
 - c. Dewormed twice?.....v8020 _____ %
 - d. Dewormed three or more times?v8021 _____ %
- Should total to 100%*

[If question 136a and 137a both = 100% (no lambs or sheep dewormed), skip to question 139.]

138. During 2023, did you use the following pharmaceutical products to treat for worms? *Do not include treatment for coccidia. For help categorizing specific products into anthelmintic class use the Reference Card.*

- a. Avermectins or Milbemycins (Ex., Ivomec® Cydectin® Dectomax®) Yes No Don't know
- b. Benzimidazoles (Ex., Panacur®/Safeguard®/Valbazen®) Yes No Don't know
- c. Imidazothiazoles (Ex., Levasole®--levamisole) Yes No Don't know
- d. Benzenesulphonamides (Ex., Curatrem®, Ivomec Plus®) Yes No Don't know
- e. Tetrahydropyrimidines (Ex., Rumatel®)..... Yes No Don't know
- f. Other (specify: _____)..... Yes No Don't know

139. During 2023, did you use any of the following products to treat for worms? *Check all that apply. Do not include treatment for coccidia.*

- High tannin containing concentrate hay or pellets (for example, lespedeza, birdsfoot trefoil)
- Diatomaceous earth
- Botanicals/herbs/cayenne pepper/garlic/apple cider vinegar
- Copper oxide wire particles
- Feed a biological control product such as BioWorma® or Livamol® (*Duddingtonia flagrans*)
- Other (specify: _____)
- No alternative deworming products were used

140. During 2023, what was the total amount of money spent on deworming products, both pharmaceutical and alternative/natural, administered to sheep on your operation?

Include those administered by a veterinarian. _____ \$ **OR** Don't know

141. Of the reasons in the deworming reason list, choose the top three reasons in order of importance, that you use to decide which sheep to deworm, and enter the corresponding code in the table.

Deworming reason list	
1. All sheep treated on a regular schedule as a preventative measure (for example, seasonally, annually)	7. Bottle jaw
2. Worms were seen in feces	8. Nasal bots
3. When the sheep's hair coat or body condition are poor	9. Five Point Check©
4. Fecal consistency (diarrhea/scours)	10. Liver flukes (<i>Fasciola hepatica</i>)
5. Based on fecal tests (e.g., fecal floats, FECRT)	11. Tapeworms
6. Based on FAMACHA card system/eye anemia score	12. Other (specify: _____)

Most important reason code	Second most important reason code	Third most important reason code
_____	_____	_____

142. During 2023, did you do any of the following as part of your internal parasite control program?

- a. Deworm animals based on fecal egg counts or other fecal examinations Yes No N/A
- b. Select for parasite-resistant sheep or cull worm-susceptible sheep Yes No N/A
- c. Use a higher dose of dewormer than the labeled dose for sheep Yes No N/A
- d. Give a combination of two or more dewormer drugs at once Yes No N/A
- e. Give repeated doses of the same dewormer on successive days Yes No N/A
- f. Rotate dewormers (switch dewormers each time you treat) Yes No N/A
- g. Rotate pastures Yes No N/A
- h. Graze sheep on the same pasture as other livestock or horses Yes No N/A
- i. Graze sheep on land that was alternated with crop/hay production Yes No N/A
- j. Limit over-grazing and leave 4-6 inches of standing grass Yes No N/A
- k. Leave sheep in a dry lot after deworming for 24 to 48 hours or longer Yes No N/A
- l. Change lambing season to reduce the risk of high parasite exposure Yes No N/A
- m. Provide additional protein supplement to increase resistance to parasites Yes No N/A
- n. Graze sheep or lambs on pastures with high tannin-containing plants Yes No N/A
- o. Other (specify: _____) Yes No N/A

[If question 142h = No or N/A (do not graze sheep with other livestock), skip to question 144.]

143. For sheep that were grazed on the same pasture as other livestock or horses,
- a. Were they grazed on the pasture at the same time? Yes No
 - b. Were the different species grazed in succession? Yes No

144. What is the primary way this operation determines whether or not the dewormer program is working?

Select one.

- Achieve expected performance (for example, target weights, fat percentage, wool quality)
- Appearance of sheep
- Fecal consistency (no diarrhea/scours)
- Improved FAMACHA or Five Point Check Score/ or eye score
- Laboratory testing
- Don't have a deworming program or don't think about if the deworming program is working
- Other (specify: _____)

145. During 2023, have you observed any of the following parasites in or on your sheep and did you treat for them?

Parasite	Did not observe	Observed but did not treat	Observed and treated
a. Lice	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Mites	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Ticks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Nasal bots	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Keds	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Blowfly larvae (maggots)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Tapeworms	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Section I – Lameness

146. During 2023, how many lambs or sheep had any signs of lameness? *If none enter 0.*

- a. Lambs _____ #
- b. Ewes _____ #
- c. Rams _____ #
- d. Total *Should equal sum of a-c* _____ #

[If question 146d = 0 (no lame sheep or lambs), skip to question 159.]

[If question 146a = 0 (no lame lambs), skip to question 148.]

147. Of the **Q146a lame lambs**, what number were thought to be lame from the following causes, and if there were any lame animals was it diagnosed by a veterinarian?

Cause	Number of lambs	Diagnosed by a veterinarian
a. Foot scald		<input type="checkbox"/> Yes <input type="checkbox"/> No
b. Footrot		<input type="checkbox"/> Yes <input type="checkbox"/> No
c. Contagious ovine digital dermatitis		<input type="checkbox"/> Yes <input type="checkbox"/> No
d. Foot abscess		<input type="checkbox"/> Yes <input type="checkbox"/> No
e. Shelly hoof/ white line disease		<input type="checkbox"/> Yes <input type="checkbox"/> No
f. Granuloma		<input type="checkbox"/> Yes <input type="checkbox"/> No
g. Injuries		<input type="checkbox"/> Yes <input type="checkbox"/> No
h. Septic arthritis		<input type="checkbox"/> Yes <input type="checkbox"/> No
i. Swollen joints/ joint ill		<input type="checkbox"/> Yes <input type="checkbox"/> No
j. Other (specify: _____)		<input type="checkbox"/> Yes <input type="checkbox"/> No

[If question 146b = 0 (no lame ewes), skip to question 149.]

148. Of the **Q146b lame ewes**, what number were thought to be lame from the following causes, and if there were any lame animals was it diagnosed by a veterinarian ?

Cause	Number of ewes	Diagnosed by a veterinarian
a. Foot scald		<input type="checkbox"/> Yes <input type="checkbox"/> No
b. Footrot		<input type="checkbox"/> Yes <input type="checkbox"/> No
c. Contagious ovine digital dermatitis		<input type="checkbox"/> Yes <input type="checkbox"/> No
d. Foot abscess		<input type="checkbox"/> Yes <input type="checkbox"/> No
e. Shelly hoof/ white line disease		<input type="checkbox"/> Yes <input type="checkbox"/> No
f. Granuloma		<input type="checkbox"/> Yes <input type="checkbox"/> No
g. Injuries		<input type="checkbox"/> Yes <input type="checkbox"/> No
h. Septic arthritis		<input type="checkbox"/> Yes <input type="checkbox"/> No
i. Swollen joints/ joint ill		<input type="checkbox"/> Yes <input type="checkbox"/> No
j. Other (specify: _____)		<input type="checkbox"/> Yes <input type="checkbox"/> No

[If question 146c = 0 (no lame rams), skip to question 150.]

149. Of the **Q146c lame rams**, what number were thought to be lame from the following causes, and if there were any lame animals was it diagnosed by a veterinarian?

Cause	Number of ewes	Diagnosed by a veterinarian
a. Foot scald		<input type="checkbox"/> Yes <input type="checkbox"/> No
b. Footrot		<input type="checkbox"/> Yes <input type="checkbox"/> No
c. Contagious ovine digital dermatitis		<input type="checkbox"/> Yes <input type="checkbox"/> No

d. Foot abscess		<input type="checkbox"/> Yes <input type="checkbox"/> No
e. Shelly hoof/ white line disease		<input type="checkbox"/> Yes <input type="checkbox"/> No
f. Granuloma		<input type="checkbox"/> Yes <input type="checkbox"/> No
g. Injuries		<input type="checkbox"/> Yes <input type="checkbox"/> No
h. Septic arthritis		<input type="checkbox"/> Yes <input type="checkbox"/> No
i. Swollen joints/ joint ill		<input type="checkbox"/> Yes <input type="checkbox"/> No
j. Other (specify: _____)		<input type="checkbox"/> Yes <input type="checkbox"/> No

150. During 2023, in which of the following seasons was lameness more common? *Select one.*

- Spring months (March-May)

 Winter months (December-February)
 Summer months (June-August)

 No season was more common
 Autumn months (September-November)

151. During 2023, how frequently were sheep checked so that a lame sheep could be identified?

Select one.

- Weekly or more often

 Less frequently than 4 times per year
 Monthly

 Never checked for lameness
 4 times per year

 Other (specify: _____)

[If question 151= 'Never checked for lameness', skip to question 155.]

152. Who generally identified lame sheep? *Select one.*

- Owner/family member

 Veterinarian
 Operation personnel

 Other (specify: _____)

153. When a lame sheep was identified what severity of lameness normally resulted in an examination of the sheep? *Select one.*

- Any degree of lameness

 Severe lameness, unable to bear weight
 Mild lameness, only noticeable at a fast walk/run

 Other (specify: _____)
 Moderate lameness, noticeable at a walk

154. How soon after being identified as lame were sheep usually examined and received treatment?

Select one.

- Within a few hours

 Within a week
 Within a day

 Within a month

Other (specify: _____)

155. During 2023, how many times did a veterinarian visit the operation and diagnose or treat lameness?

- a. In conjunction with a regular or routine visit, such as pregnancy checks _____ #
b. A visit to exclusively diagnose and or treat lameness _____ #

156. Of the **Q146d lame lambs and sheep**, how many were treated by the following methods?

- a. Mild foot trimming, where excess horn only was removed _____ #
b. Extensive foot trimming, where hoof horn was cut back until bleeding _____ #
c. An antibiotic spray (oxytetracycline) directly onto the hoof _____ #
d. A copper treatment directly onto the hoof (Coppertox) _____ #
e. A wound spray/antiseptic spray (silver spray, Blue Kote, Alushield, etc.) _____ #
f. A footbath (copper sulphate, zinc sulphate, or formalin solution) _____ #
g. An injectable antibiotic (tilmicosin, gamithromycin or oxytetracycline) _____ #
h. An antibiotic in the feed or water _____ #
i. Other (specify: _____) _____ #
j. No treatment given _____ #

157. During 2023, what was the average number of days a sheep was lame on your operation **before treatment?** _____ Days

158. During 2023, what was the average number of days a sheep was lame on your operation **following treatment?** _____ Days

159. Which of the following best describes the use of footbaths for sheep during 2023? *Select one.*

- Footbath used throughout the year No footbath used
 Footbath used seasonally/occasionally Other (specify: _____)

[If question 159 = 'No footbath used', skip to question 162.]

160. Which of the following footbath medications was most commonly used in footbaths for sheep?

Select one.

- Copper sulfate Hydrogen peroxide
 Formalin/formaldehyde Other (list active ingredient: _____)
 Oxytetracycline

161. During 2023, approximately how many sheep went through a footbath before it was drained, cleaned, and replenished with medication? *Note: a sheep can go through a footbath multiple times and should be counted each time.* _____ #

162. During 2023, which best describes how frequently the majority of sheep had their hooves trimmed?

Select one.

- Three or more times per year
- Twice per year
- Once per year
- Only when lame
- When in visible need of a trim
- Other (specify: _____)
- Hooves not trimmed during 2023

[If question 162 = 'Hooves not trimmed', skip to question 165.]

163. During 2023, who trimmed the majority of hooves? Select one.

- Professional hoof trimmer (not this operation's personnel)
- Veterinarian (not this operation's personnel)
- Owner or this operation's personnel
- Other (specify: _____)

164. In 2023, during a regular trimming session, what was the percentage of the flock that had hooves trimmed? _____%

165. During 2023, did your operation use any of the management practices specifically to prevent or reduce lameness? Check all that apply.

- a. Reduce stocking densities
- b. Rotational grazing
- c. Isolation of new arrival
- d. Checking the feet of new arrivals prior to adding to the flock
- e. Implementing footbaths to prevent disease and/or to reduce spread
- f. Increase the frequency of hoof trimming
- g. Cull lame sheep
- h. Other (specify: _____)
- i. No management practices have been implemented

Section J – Antimicrobial Use in Feed and Water

166. During the period from January 1, 2023, through December 31, 2023, did this operation use a coccidiostat in the feed (including milk, milk replacer or starter) or water?

- a. Feed Yes No
- b. Water Yes No

[If question 166a = No, skip to question 169.]

167. Which of the following coccidiostats were used in feed (including milk, milk replacer, or starter)?

Check all that apply.

- a. Ionophores (Rumensin®, Bovatec®)
- b. Decoquinate (Deccox®)
- c. Amprolium (Corid®)
- d. Sulfa drugs (Albon®, Sulmet®, or similar)
- e. Other (specify: _____)

[If question 167d= Not checked (no sulfa drugs used), skip to question 169.]

168. During 2023, for **sulfa drugs used in feed** as a coccidiostat, what was:

- a. The number of lambs that received sulfa drugs? _____ #
- b. The number of sheep that received sulfa drugs? _____ #
- c. The average number of total days lambs received sulfa drugs? _____ days
- d. The average number of total days sheep received sulfa drugs? _____ days

[If question 166b= No, skip to question 171.]

169. Which of the following coccidiostats were used in **drinking water**? *Check all that apply.*

- a. Amprolium (Corid®)
- b. Sulfa drugs (Albon®, Sulmet®, or similar)
- c. Other (specify: _____)

[If question 169b= not checked (no sulfa drugs used), skip to question 171.]

170. During 2023, for **sulfa drugs used in drinking water** as a coccidiostat what was:

- a. The number of lambs that received sulfa drugs? _____ #
- b. The number of sheep that received sulfa drugs? _____ #
- c. The average number of total days that lambs received sulfa drugs? _____ days
- d. The average number of total days that sheep received sulfa drugs? _____ days

171. During 2023, did this operation use ionophores as growth promotants in feed? Yes No

172. From January 1, 2023, through December 31, 2023, were any sheep or lambs given any antibiotics (other than ionophores) in **drinking water** or **feed (including milk, milk replacer, or starter)** to prevent, control or treat a disease or disorder?

	Antibiotics given in the <u>drinking water</u> ?	Antibiotics given in the <u>feed</u> ?
a. Lambs	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
b. Sheep	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No

[If question 172a-b drinking water and feed = No (no antibiotics used), skip to Section K.]

[If question 172a drinking water = No (no antibiotics to lambs in water), skip to question 176.]

173. For **lambs** given antibiotics in **drinking water**, mark the reason(s) for administration.

- a. Respiratory disease Yes No
- b. Digestive disease (**nonparasitic**)..... Yes No
- c. Other (specify: _____)..... Yes No

174. For **lambs** treated with antibiotics in **drinking water**, which antibiotic was primarily used to treat the listed diseases? *Note: Use Antibiotic reference card to identify antibiotic class if needed.*

Disease	Select Antibiotic Class
Respiratory disease [Skip row if 173a = No]	<input type="checkbox"/> Sulfonamides <input type="checkbox"/> Tetracyclines <input type="checkbox"/> Other (specify:_____)
Digestive disease (nonparasitic) [Skip row if 173b = No]	<input type="checkbox"/> Sulfonamides <input type="checkbox"/> Tetracyclines <input type="checkbox"/> Other (specify:_____)
Other [Skip row if 173c = No]	<input type="checkbox"/> Sulfonamides <input type="checkbox"/> Tetracyclines <input type="checkbox"/> Other (specify:_____)

175. For **lambs** given antibiotics in **drinking water**, during 2023, for each disease, what was the:

Disease	Average number of times lambs were treated?	Average number of lambs treated?	Average number of days per treatment?
Respiratory disease [Skip row if 173a = No]	_____ # treatments	_____ # lambs	_____ days
Digestive disease (nonparasitic) [Skip row if 173b = No]	_____ # treatments	_____ # lambs	_____ days
Other [Skip row if 173c = No]	_____ # treatments	_____ # lambs	_____ days

[If question 172a feed = No (no antibiotics to lambs in feed), skip to question 179.]

176. For **lambs** given antibiotics in **feed**, mark the reason(s) for administration.

- a. Respiratory disease Yes No
- b. Digestive disease (**nonparasitic**) Yes No
- c. Other (specify: _____) Yes No

177. For **lambs** treated with antibiotics in **feed**, which antibiotic was primarily used to treat the listed diseases? *Note: Use Antibiotic reference card to identify antibiotic class if needed.*

Disease	Select Antibiotic Class
Respiratory disease [Skip row if 176a = No]	<input type="checkbox"/> Aminoglycosides <input type="checkbox"/> Tetracyclines <input type="checkbox"/> Other (specify:_____)
Digestive disease (nonparasitic) [Skip row if 176b = No]	<input type="checkbox"/> Aminoglycosides <input type="checkbox"/> Tetracyclines <input type="checkbox"/> Other (specify:_____)

Other [Skip row if 176c = No]	<input type="checkbox"/> Aminoglycosides <input type="checkbox"/> Tetracyclines <input type="checkbox"/> Other (specify:_____)
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178. For **lambs** given antibiotics in **feed**, during 2023, for each disease, what was the:

Disease	Average number of times lambs were treated?	Average number of lambs treated?	Average number of days per treatment?
Respiratory disease [Skip row if 176a = No]	_____ # treatments	_____ # lambs	_____ days
Digestive disease (nonparasitic) [Skip row if 176b = No]	_____ # treatments	_____ # lambs	_____ days
Other [Skip row if 176c = No]	_____ # treatments	_____ # lambs	_____ days

[If question 172b drinking water = No (no antibiotics to adults in water), skip to question 182.]

179. For **adults** given antibiotics in **drinking water**, mark the reason(s) for administration.

- a. Respiratory disease..... Yes No
- b. Digestive disease (**nonparasitic**)..... Yes No
- c. Abortion Yes No
- d. Other (specify:_____). Yes No

180. For **adults** treated with antibiotics in **drinking water**, which antibiotic was primarily used to treat the listed diseases?

Disease	Select Antibiotic
Respiratory disease [Skip row if 179a = No]	<input type="checkbox"/> Sulfonamides <input type="checkbox"/> Tetracyclines <input type="checkbox"/> Other (specify:_____)
Digestive disease (nonparasitic) [Skip row if 179b = No]	<input type="checkbox"/> Sulfonamides <input type="checkbox"/> Tetracyclines <input type="checkbox"/> Other (specify:_____)
Abortion [Skip row if 179c = No]	<input type="checkbox"/> Sulfonamides <input type="checkbox"/> Tetracyclines <input type="checkbox"/> Other (specify:_____)
Other [Skip row if 179d = No]	<input type="checkbox"/> Sulfonamides <input type="checkbox"/> Tetracyclines <input type="checkbox"/> Other (specify:_____)

181. For **adults** given antibiotics in **drinking water**, during 2023, for each disease, what was the:

Disease	Average number of times adults were treated?	Average number of adults treated?	Average number of days per treatment?
Respiratory disease [Skip row if 179a = No]	_____ # treatments	_____ # adults	_____ days

Digestive disease (nonparasitic) [Skip row if 179b = No]	_____ # treatments	_____ # adults	_____ days
Abortion [Skip row if 179c = No]	_____ # treatments	_____ # adults	_____ days
Other [Skip row if 179d = No]	_____ # treatments	_____ # adults	_____ days

[If question 172b feed = No (no antibiotics to adults in feed), SKIP to Section K.]

182. For **adults** given antibiotics in **feed**, mark the reason(s) for administration.

- a. Respiratory disease Yes No
- b. Digestive disease (nonparasitic) Yes No
- c. Abortion Yes No
- d. Other (specify: _____) Yes No

183. For **adults** treated with antibiotics in **feed**, which antibiotic was primarily used to treat the listed diseases?

Disease	Select Antibiotic
Respiratory disease [Skip row if 182a = No]	<input type="checkbox"/> Aminoglycosides <input type="checkbox"/> Tetracyclines <input type="checkbox"/> Other (specify: _____)
Digestive disease (nonparasitic) [Skip row if 182b = No]	<input type="checkbox"/> Aminoglycosides <input type="checkbox"/> Tetracyclines <input type="checkbox"/> Other (specify: _____)
Abortion [Skip row if 182c = No]	<input type="checkbox"/> Aminoglycosides <input type="checkbox"/> Tetracyclines <input type="checkbox"/> Other (specify: _____)
Other [Skip row if 182d=No]	<input type="checkbox"/> Aminoglycosides <input type="checkbox"/> Tetracyclines <input type="checkbox"/> Other (specify: _____)

184. For **adults** given antibiotics in **feed**, during 2023, for each disease, what was the:

Disease	Average number of times adults were treated?	Average number of adults treated?	Average number of days per treatment?
Respiratory disease [Skip row if 182a = No]	_____ # treatments	_____ # adults	_____ days
Digestive disease (nonparasitic) [Skip row if 182b= No]	_____ # treatments	_____ # adults	_____ days
Abortion [Skip row if 182c = No]	_____ # treatments	_____ # adults	_____ days
Other [Skip row if 182d = No]	_____ # treatments	_____ # adults	_____ days

Section K – Health Conditions and Losses

This section covers losses and illness in your sheep during 2023. The section is broken down by age class and covers preweaned lambs, weaned lambs, ewes, and rams. You will be asked to report the number of sick animals, the number treated, the primary antibiotic used, and the number that died or were culled by condition. When asked about antibiotics administered, do not include antibiotics administered in the feed or drinking water. Please report topical antibiotics, antibiotics given by injection, oral bolus, or drench, eye ointments and intramammary antibiotics if used by class. Only answer for treatment uses.

PREWEANED LAMBS [If no preweaned lambs present during 2023, skip to question 198.]

185. During 2023, how many different preweaned lambs became sick, or were affected by weather related, starvation causes, or unknown conditions? #
 Unknown (such as lambs were on range or pasture with no contact)

[If question 185 = 0 or unknown, skip to question 196]

186. Of the **Q185 preweaned lambs** that became sick, how many different lambs received an antibiotic to treat a condition? #

187. Of the **Q185 sick preweaned lambs**, how many had **digestive issues** such as diarrhea/scours, overeating/enterotoxemia, coccidia, or other digestive issues? #
a. How many of these preweaned lambs received antibiotics to treat the condition? #
b. What was the primary antibiotic used?
c. How many of these preweaned lambs died or were euthanized due to the condition? #
d. How many preweaned lambs were removed primarily due to the condition? #

188. Of the **Q185 sick preweaned lambs**, how many had a **navel infection**? #
a. How many of these preweaned lambs received antibiotics to treat the condition? #
b. What was the primary antibiotic used?
c. How many of these preweaned lambs died or were euthanized due to the condition? #
d. How many preweaned lambs were removed primarily due to the condition? #

189. Of the **Q185 sick preweaned lambs**, how many had **lambing problems or other perinatal conditions**, such as floppy lamb syndrome, weak lamb, or similar? #
a. How many of these preweaned lambs received antibiotics to treat the condition? #
b. What was the primary antibiotic used?
c. How many of these preweaned lambs died or were euthanized due to the condition? #
d. How many preweaned lambs were removed primarily due to the condition? #

190. Of the **Q185 sick preweaned lambs**, how many had **pink eye, or other eye issues**? #
a. How many of these preweaned lambs received antibiotics to treat the condition? #
b. What was the primary antibiotic used?
c. How many of these preweaned lambs died or were euthanized due to the condition? #
d. How many preweaned lambs were removed from primarily due to the condition? #

191. Of the **Q185 sick preweaned lambs**, how many had **respiratory problems**, such as pneumonia, shipping fever, or runny nose or cough? #
- How many of these preweaned lambs received antibiotics to treat the condition? #
 - What was the primary antibiotic used?
 - How many of these preweaned lambs died or were euthanized due to the condition? #
 - How many preweaned lambs were removed primarily due to the condition?..... #
192. Of the **Q185 sick preweaned lambs**, how many had **lameness**, including lameness caused by joint swelling, wounds, or trauma? #
- How many of these preweaned lambs received antibiotics to treat the condition? #
 - What was the primary antibiotic used?
 - How many of these preweaned lambs died or were euthanized due to the condition? #
 - How many preweaned lambs were removed primarily due to the condition? #
193. Of the **Q185 sick preweaned lambs**, how many had were affected by **weather-related or starvation conditions**, including chilling, drowning, and lightning?..... #
- How many of these preweaned lambs received antibiotics to treat the condition? #
 - What was the primary antibiotic used?
 - How many of these preweaned lambs died or were euthanized due to the condition? #
 - How many preweaned lambs were removed primarily due to the condition? #
194. Of the **Q185 sick preweaned lambs**, how many became ill from **another known condition**? ___ #
- Please specify the other known condition(s) not listed?
 - How many of these preweaned lambs received antibiotics to treat the condition? #
 - What was the primary antibiotic used?
 - How many of these preweaned lambs died or were euthanized due to the condition? #
 - How many preweaned lambs were removed primarily due to the condition?..... #
195. Of the **Q185 sick preweaned lambs**, how many became ill from an **unknown condition** or were found dead?..... #
- How many of these preweaned lambs received antibiotics to treat the condition? #
 - What was the primary antibiotic used?
 - How many of these preweaned lambs died or were euthanized due to the condition? #
 - How many preweaned lambs were removed primarily due to the condition? #
196. From January 1, 2023, through December 31, 2023, how many preweaned lambs:
- Were lost or stolen?
 - Died or were euthanized from predators?..... #
 - Died or were euthanized from nonpredator causes?..... #
 - Overall, the total number of preweaned lambs lost/stolen, died, euthanized was?.... #

197. Write any additional comments about preweaned lamb illness conditions here:

WEANED LAMBS [If no weaned lambs present, skip to question 212.]

198. During 2023, how many different **weaned lambs** became sick, or were affected by weather related, starvation causes, or unknown conditions? #

₁ Unknown (such as lambs were on range or pasture with no contact)

[If Question 198=0 or unknown, skip to question 210.]

199. Of the **Q198 weaned lambs** that became sick , how many different lambs received an antibiotic to treat a condition?..... #

200. Of the **Q198 sick weaned lambs**, how many had **intestinal worms**?..... #

a. How many of these weaned lambs died or were euthanized due to the condition?... #

b. How many weaned lambs were removed primarily due to the condition?..... #

201. Of the **Q198 sick weaned lambs**, how many had **digestive issues not related to intestinal worms** such as scours, overeating/enterotoxemia, coccidia, or other digestive issues? . #

a. How many of these weaned lambs received antibiotics to treat the condition? #

b. What was the primary antibiotic used?

c. How many of these weaned lambs died or were euthanized due to the condition?... #

d. How many weaned lambs were removed primarily due to the condition?..... #

202. Of the **Q198 sick weaned lambs**, how many had **pinkeye**, conjunctivitis, other eye issues? ____ #

a. How many of these weaned lambs received antibiotics to treat the condition? #

b. What was the primary antibiotic used?

c. How many of these weaned lambs died or were euthanized due to the condition?... v #

d. How many weaned lambs were removed primarily due to the condition?..... #

203. Of the **Q198 sick weaned lambs**, how many had **respiratory problems**, such as pneumonia, shipping fever, or runny nose or cough? #

a. How many of these weaned lambs received antibiotics to treat the condition? #

b. What was the primary antibiotic used?

c. How many of these weaned lambs died or were euthanized due to the condition? ... #

d. How many weaned lambs were removed primarily due to the condition?..... #

204. Of the **Q198 sick weaned lambs** how many had **lameness caused by footrot/scald**?..... #

a. How many of these weaned lambs received antibiotics to treat the condition? #

- b. What was the primary antibiotic used?
- c. How many of these weaned lambs died or were euthanized due to the condition? ... _____ #
- d. How many weaned lambs were removed primarily due to the condition?..... _____ #

205. Of the **Q198 sick weaned lambs**, how many had **lameness due to other causes**, such as joint swelling, wounds, or trauma?
- a. How many of these weaned lambs received antibiotics to treat the condition? _____ #
 - b. What was the primary antibiotic used?
 - c. How many of these weaned lambs died or were euthanized due to the condition?... _____ #
 - d. How many weaned lambs were removed primarily due to the condition?..... _____ #

206. Of the **Q198 sick weaned lambs**, how many had **central nervous system signs**, such as staggering, swaying, falling down, circling, or blindness?
- a. How many of these weaned lambs received antibiotics to treat the condition? _____ #
 - b. What was the primary antibiotic used?
 - c. How many of these weaned lambs died or were euthanized due to the condition?... _____ #
 - d. How many weaned lambs were removed primarily due to the condition?..... _____ #

207. Of the **Q198 sick weaned lambs**, how many were affected by **weather-related causes or poisoning/toxicity causes**, such as chilling, drowning, lightning, noxious weeds?
- a. How many of these weaned lambs received antibiotics to treat the condition? _____ #
 - b. What was the primary antibiotic used?
 - c. How many of these weaned lambs died or were euthanized due to the condition? _____ #
 - d. How many weaned lambs were removed primarily due to the condition?..... _____ #

208. Of the **Q198 sick weaned lambs**, how many became ill from **another known condition**? _____ #
- a. Please specify the other known condition(s) not listed?
 - b. How many of these weaned lambs received antibiotics to treat the condition? _____ #
 - c. What was the primary antibiotic used?
 - d. How many of these weaned lambs died or were euthanized due to the condition?... _____ #
 - e. How many weaned lambs were removed primarily due to the condition?..... _____ #

209. Of the **Q198 sick weaned lambs**, how many became ill from an **unknown condition** or were found dead?
- a. How many of these weaned lambs received antibiotics to treat the condition? _____ #
 - b. What was the primary antibiotic used?
 - c. How many of these weaned lambs died or were euthanized due to the condition?... _____ #

d. How many weaned lambs were removed primarily due to the condition?..... _____ #

210. From January 1, 2023, through December 31, 2023, how many weaned lambs:

a. Were lost or stolen? _____ #

b. Died or were euthanized from predators?..... _____ #

c. Died or were euthanized from nonpredator causes?..... _____ #

d. Overall, the total number of weaned lambs lost/stolen, died, euthanized was?..... _____ #

211. Write any additional comments about weaned lamb illness conditions here:

EWES [If no ewes present, skip to question 231.]

212. How many **different ewes** became sick, or were affected by weather related, starvation causes, or unknown conditions? _____ #

Unknown (such as ewes were on range or pasture with no contact)

[If question 212 = 0 or unknown, skip to question 229.]

213. Of the **Q212 ewes** that became sick , how many different ewes received an antibiotic to treat a condition? _____ #

214. Of the **Q212 sick ewes**, how many had **intestinal worms**?..... _____ #

a. How many of these ewes died or were euthanized due to the condition?..... _____ #

b. How many ewes were removed from the operation primarily due to the condition?.. _____ #

215. Of the **Q212 sick ewes**, how many had **digestive issues not related to intestinal worms** such as scours, overeating/enterotoxemia, coccidia, or other digestive issues? _____ #

a. How many of these ewes received antibiotics to treat the condition? _____ #

b. What was the primary antibiotic used? _____

c. How many of these ewes died or were euthanized due to the condition?..... _____ #

d. How many ewes were removed primarily due to the condition?..... _____ #

216. Of the **Q212 sick ewes**, how many had **pinkeye**, conjunctivitis, or other eye issues? .. _____ #

a. How many of these ewes received antibiotics to treat the condition? _____ #

b. What was the primary antibiotic used? _____

c. How many of these ewes died or were euthanized due to the condition?..... _____ #

d. How many ewes were removed primarily due to the condition?..... _____ #

217. Of the **Q212 sick ewes**, how many had **respiratory problems**, such as pneumonia, shipping fever, cough or runny nose? #
- a. How many of these ewes received antibiotics to treat the condition? #
- b. What was the primary antibiotic used?
- c. How many of these ewes died or were euthanized due to the condition?..... #
- d. How many ewes were removed primarily due to the condition?..... #
218. Of the **Q212 sick ewes**, how many had **abortions**?..... #
- a. How many of these ewes received antibiotics to treat the condition? #
- b. What was the primary antibiotic used?
- c. How many of these ewes died or were euthanized due to the condition?..... #
- d. How many ewes were removed primarily due to the condition?..... #
219. Of the **Q212 sick ewes** how many had **other reproductive problems**, such as retained placenta/uterine infection, dystocia? #
- a. How many of these ewes received antibiotics to treat the condition? #
- b. What was the primary antibiotic used?
- c. How many of these ewes died or were euthanized due to the condition?..... #
- d. How many ewes were removed primarily due to the condition?..... #
220. Of the **Q212 sick ewes** how many had **mastitis**? #
- a. How many of these ewes received antibiotics to treat the condition? #
- b. What was the primary antibiotic used?
- c. How many of these ewes died or were euthanized due to the condition?..... #
- d. How many ewes were removed primarily due to the condition?..... #
221. Of the **Q212 sick ewes**, how many had **metabolic problems**, such as milk fever or pregnancy toxemia? #
- a. How many of these ewes received antibiotics to treat the condition? #
- b. What was the primary antibiotic used?
- c. How many of these ewes died or were euthanized due to the condition?..... #
- d. How many ewes were removed primarily due to the condition?..... #
222. Of the **Q212 sick ewes**, how many had **lameness caused by footrot/scald**?..... #
- a. How many of these ewes received antibiotics to treat the condition? #
- b. What was the primary antibiotic used?
- c. How many of these ewes died or were euthanized due to the condition?..... #
- d. How many ewes were removed primarily due to the condition?..... #

223. Of the **Q212 sick ewes**, how many had **lameness due to other causes**, such as joint swelling, wounds, or trauma? #
- a. How many of these ewes received antibiotics to treat the condition? #
- b. What was the primary antibiotic used?
- c. How many of these ewes died or were euthanized due to the condition?..... #
- d. How many ewes were removed primarily due to the condition?..... #
224. Of the **Q212 sick ewes**, how many had **central nervous system signs**, such as staggering, swaying, falling down, circling, or blindness? #
- a. How many of these ewes received antibiotics to treat the condition? #
- b. What was the primary antibiotic used?
- c. How many of these ewes died or were euthanized due to the condition?..... #
- d. How many ewes were removed primarily due to the condition?..... #
225. Of the **Q212 sick ewes** how many were affected by **weather-related causes or poisoning/toxicity** causes, such as chilling, drowning, lightning, noxious weeds?..... #
- a. How many of these ewes received antibiotics to treat the condition? #
- b. What was the primary antibiotic used?
- c. How many of these ewes died or were euthanized due to the condition? #
- d. How many ewes were removed primarily due to the condition?..... #
226. Of the **Q212 sick ewes**, how many had **chronic weight loss**? #
- a. How many of these ewes received antibiotics to treat the condition? #
- b. What was the primary antibiotic used?
- c. How many of these ewes died or were euthanized due to the condition?..... #
- d. How many ewes were removed primarily due to the condition?..... #
227. Of the **Q212 sick ewes** how many became ill from **another known condition**?..... #
- a. Please specify the other known condition(s) not listed?
- b. How many of these ewes received antibiotics to treat the condition? #
- c. What was the primary antibiotic used?
- d. How many of these ewes died or were euthanized due to the condition?..... #
- e. How many ewes were removed primarily due to the condition?..... #
228. Of the **Q212 sick ewes**, how many became ill from an **unknown condition**/were found dead? ___ #
- a. How many of these ewes received antibiotics to treat the condition? #
- b. What was the primary antibiotic used?
- c. How many of these ewes died or were euthanized due to the condition?..... #
- d. How many ewes were removed primarily due to the condition?..... #
229. From January 1, 2023, through December 31, 2023, how many ewes:

- a. Were lost or stolen? #
- b. Died or were euthanized from predators?..... #
- c. Died or were euthanized from nonpredator causes?..... #
- d. Overall, the total number of ewes lost/stolen, died, euthanized was?..... #

230. Write any additional comments about ewe illness conditions here:

RAMS [If no rams present, skip to question 247.]

231. How many **different rams** became sick, or were affected by weather related, starvation causes, or unknown conditions? #

Unknown (such as rams were on range or pasture with no contact)

[If question 231=0 or unknown, skip to question 245.]

232. Of the **Q231 rams** that became sick, how many **different rams** received an antibiotic to treat a condition? #

233. Of the **Q231 sick rams**, how many had **intestinal worms**? #

- a. How many of these rams died or were euthanized due to the condition? #
- b. How many rams were removed from the operation primarily due to the condition? .. #

234. Of the **Q231 sick rams**, how many had **digestive issues not related to intestinal worms** such as scours, overeating/enterotoxemia, coccidia, or other digestive issues? #

- a. How many of these rams received antibiotics to treat the condition?..... #
- b. What was the primary antibiotic used?
- c. How many of these rams died or were euthanized due to the condition? #
- d. How many rams were removed primarily due to the condition?..... #

235. Of the **Q231 sick rams**, how many had **pinkeye**, conjunctivitis, or other eye issues?... #

- a. How many of these rams received antibiotics to treat the condition?..... #
- b. What was the primary antibiotic used?
- c. How many of these rams died or were euthanized due to the condition? #
- d. How many rams were removed primarily due to the condition?..... #

236. Of the **Q231 sick rams**, how many had **respiratory problems**, such as pneumonia, shipping fever, or runny nose?..... _____ #
- a. How many of these rams received antibiotics to treat the condition?..... _____ #
- b. What was the primary antibiotic used? _____
- c. How many of these rams died or were euthanized due to the condition? _____ #
- d. How many rams were removed primarily due to the condition? _____ #
237. Of the **Q231 sick rams**, how many had **reproductive problems**, such as penile or testicular disorders, or urinary calculi?..... _____ #
- a. How many of these rams received antibiotics to treat the condition?..... _____ #
- b. What was the primary antibiotic used? _____
- c. How many of these rams died or were euthanized due to the condition? _____ #
- d. How many rams were removed primarily due to the condition? _____ #
238. Of the **Q231 sick rams**, how many had **lameness caused by footrot/scald**? _____ #
- a. How many of these rams received antibiotics to treat the condition?..... _____ #
- b. What was the primary antibiotic used? _____
- c. How many of these rams died or were euthanized due to the condition? _____ #
- d. How many rams were removed primarily due to the condition? _____ #
239. Of the **Q231 sick rams**, how many had **lameness due to other causes**, such as joint swelling, wounds, or trauma? _____ #
- a. How many of these rams received antibiotics to treat the condition?..... _____ #
- b. What was the primary antibiotic used? _____
- c. How many of these rams died or were euthanized due to the condition? _____ #
- d. How many rams were removed primarily due to the condition? _____ #
240. Of the **Q231 sick rams**, how many had **central nervous system signs**, such as staggering, swaying, falling down, circling, or blindness?..... _____ #
- a. How many of these rams received antibiotics to treat the condition?..... _____ #
- b. What was the primary antibiotic used? _____
- c. How many of these rams died or were euthanized due to the condition? _____ #
- d. How many rams were removed primarily due to the condition? _____ #
241. Of the **Q231 sick rams**, how many were affected by **weather-related causes or poisoning/toxicity** causes, such as chilling, drowning, lightning, noxious weeds?..... _____ #
- a. How many of these rams received antibiotics to treat the condition?..... _____ #
- b. What was the primary antibiotic used? _____

- c. How many of these rams died or were euthanized due to the condition? _____ #
 - d. How many rams were removed primarily due to the condition? _____ #
242. Of the **Q231 sick rams**, how many had chronic weight loss? _____ #
- a. How many of these rams received antibiotics to treat the condition? _____ #
 - b. What was the primary antibiotic used? _____
 - c. How many of these rams died or were euthanized due to the condition? _____ #
 - d. How many rams were removed primarily due to the condition? _____ #
243. Of the **Q231 sick rams**, how many became ill from **another known condition**? _____ #
- a. Please specify the other known condition(s) not listed? _____
 - b. How many of these rams received antibiotics to treat the condition? _____ #
 - c. What was the primary antibiotic used? _____
 - d. How many of these rams died or were euthanized due to the condition? _____ #
 - e. How many rams were removed primarily due to the condition? _____ #
244. Of the **Q231 sick rams**, how many became ill from an **unknown condition**/were found dead? _____ #
- a. How many of these rams received antibiotics to treat the condition? _____ #
 - b. What was the primary antibiotic used? _____
 - c. How many of these rams died or were euthanized due to the condition? _____ #
 - d. How many rams were removed primarily due to the condition? _____ #
245. From January 1, 2023, through December 31, 2023, how many rams:
- a. Were lost or stolen? _____ #
 - b. Died or were euthanized from predators? _____ #
 - c. Died or were euthanized from nonpredator causes? _____ #
 - d. Overall, the total number of rams lost/stolen, died, euthanized was? _____ #

246. Write any additional comments about ram illness conditions here:

247. Did your operation necropsy any lambs and sheep that died from nonpredator reasons to determine the cause of death? Yes No N/A

248. During 2023, for any deaths or euthanasia, what was your primary disposal method for sheep carcasses? *Select one.*

- Burial on premises

- Leaving for scavengers
- Landfill or municipal dump
- Composting
- Rendering
- Other (specify: _____)

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1. What was the total interview and travel time to complete this study?

Enter time to the nearest quarter hour. If more than one data collector was present, enter the combined total time.

- a. Total time for interview (include time to discuss the program and complete the questionnaire): _____ minutes
- b. Total travel time (round trip)..... _____ minutes

2. How many of the following data collector(s) were present? *Enter the number of each category.*

- a. Federal VMO..... _____ #
- b. Federal AHT..... _____ #
- c. State personnel..... _____ #
- d. Other? (specify: _____)..... _____ #

3. Please select the option that best describes the survey completion status. *Select one.*

- Survey completed
- Producer not contacted by VMO
- Poor time of year to contact or no time
- Does not want anyone on operation
- Bad experience with government veterinarians
- Does not want to do another survey or divulge information
- Told NASS they did not want to be contacted
- Ineligible (no sheep)
- Other reason (explain below)

[If question 3 does not equal 'Survey Completed' SKIP to question 9.]

4. Which of the following best describes the respondent's position with this operation? *Select one.*

- Owner
- Manager
- Family member (other than owner or manager)
- Other hired employee
- Other, specify(_____)

5. Did the respondent use written or computerized records to assist in answering this survey?

- Yes No Unknown

6. How was the interview completed? *Check all that apply.*

- Participant self-administered online
- Via phone
- In-person

7. Please select the option that best describes the data quality provided for this questionnaire.

- Good to excellent
- Okay
- Poor

8. Does this operation plan to submit any of the following biologic samples?

- a. GI parasite testing Yes No
- b. Lameness pathogen testing and serum/blood bank Yes No
- c. Enteric microbe testing Yes No

9. Who was involved in the contact, interview, and completion of the questionnaire for this operation?

Write N/A if questionnaire or biologic sampling was not completed.

- a. Person who contacted the producer: _____
- b. Person who interviewed the producer and completed the questionnaire: _____
- c. Person who completed any biologic sampling:..... _____

10. Comments regarding this questionnaire or operation: