## Section A—Reproduction

1. In the last 12 months, how many days after calving were cows declared eligible to be bred (elective or voluntary waiting period)? ......................... S001 _____ days

2. Which of the following were used to detect heat (estrus) in the last 12 months?
   a. Visual observation ................................................................. S002 □ Yes □ No
   b. Tail chalk/paint ........................................................................ S003 □ Yes □ No
   c. Pedometers ............................................................................. S004 □ Yes □ No
   d. Pressure devices (Kamar™)...................................................... S005 □ Yes □ No
   e. HeatWatch® Estrus Detection System .................................. S006 □ Yes □ No
   f. Bulls (natural service)............................................................... S007 □ Yes □ No
   g. Other (specify: ____________________) ________________________ S008 □ Yes □ No

   **If Item 2a = NO, SKIP to Item 6.**

3. Is there a designated person(s) who is specifically responsible for visually observing heats (estrus)? .......................................................... S009 □ Yes □ No

4. Does this operation have a set number of times per day and duration for observing heats? ................................................................. S010 □ Yes □ No

   **If Item 4 = NO, SKIP to Item 6.**

5. On average, how many times per day and for how long each time were cows visually observed for heat? ............................ S011/012

<table>
<thead>
<tr>
<th>Times/day</th>
<th>Duration each time (minutes)</th>
</tr>
</thead>
</table>

---

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0579-0205. The time required to complete this information collection is estimated to average 1.25 hours per response, including the time to review instructions, search existing data resources, gather the data needed, and complete and review the information collected.
6. Which of the following categories best describes first service breeding practices for the majority of heifers and cows in the last 12 months? (Choose one code for heifers and one code for cows.)

**Codes:**
1 = Natural service (bull-bred)
2 = AI to natural estrus (no injections given to induce estrus)
3 = AI to induced estrus (prostaglandin injections only)
4 = AI to induced estrus after Ovsynch program (prostaglandin and GnRH injections)
5 = Timed AI after Ovsynch program (prostaglandin and GnRH injections)
6 = AI to estrus after Presynch/Ovsynch
7 = Timed AI after Presynch/Ovsynch
8 = Other (specify: _______________________) S013/014

Heifers     Cows

7. Which of the following categories best describes second or greater service breeding practices for the majority of heifers and cows in the last 12 months? (Choose one code for heifers and one code for cows.)

**Codes:**
1 = Natural service (bull-bred)
2 = AI to natural estrus (no injections given to induce estrus)
3 = AI to induced estrus (prostaglandin injections only)
4 = AI to induced estrus after Ovsynch program (prostaglandin and GnRH injections)
5 = Timed AI after Ovsynch program (prostaglandin and GnRH injections)
6 = AI to induced estrus after Resynch (Ovsynch’s 1st GnRH started 1 week prior to, or at, pregnancy diagnosis)
7 = Timed AI to Resynch (Ovsynch’s 1st GnRH started 1 week prior to, or at, pregnancy diagnosis)
8 = Other (specify: _______________________) S015/016

Heifers     Cows

8. In the last 12 months, were timed-AI programs used to manage reproduction in any:
   a. Heifers? ................................................................. S017   Yes   No
   b. Cows? ................................................................. S018   Yes   No

*If Items 8a and 8b = NO, SKIP to Item 11.*

9. How many years have timed-AI programs (e.g., Ovsynch) been used?.............. S019

10. Which best describes why timed-AI programs are being used to manage reproduction? (Check one only.)

   1 □ To control all 1st and subsequent services
   2 □ To control only 2nd and greater services
   3 □ Only occasionally to catch up on nonpregnant cows
   4 □ Other (specify: _______________________) S020

Dairy 2007 VS Second Visit Questionnaire
11. Did this operation use a controlled internal drug release (CIDR) insert in the last 12 months? ................................................................. S021
   ○ Yes   ○ No
   If YES, were they used:
   a. As part of a herd synchronization program? ........................................ S022
      ○ Yes   ○ No
   b. Specifically for animals identified as anestrus (acyclic)? ............... S023
      ○ Yes   ○ No
   c. Specifically for animals identified as cystic? ..................................... S024
      ○ Yes   ○ No
   d. Postbreeding? .................................................................................. S025
      ○ Yes   ○ No
   e. Other? (specify: ____________________) S026OTH .................................. S026
      ○ Yes   ○ No

12. Which of the following best describes who administered the majority of reproductive injections in the last 12 months? (Check one only.)
   ○ 1 Owner/operator
   ○ 2 Herdsman
   ○ 3 General employee
   ○ 4 Veterinarian
   ○ 5 AI service/technician
   ○ 6 No reproductive injections administered
   ○ 7 Other (specify: ________________) S027OTH

13. Did any heifers or cows have embryos transplanted into them in the last 12 months? ................................................................. S028
    ○ 1 Yes   ○ No
    If YES, how many heifers and how many cows received:
    a. Fresh embryos? .................................................................................. S029/030
    Heifers         Cows
    b. Frozen embryos? .................................................................................. S031/032
    Heifers         Cows

14. In the last 12 months, what percentage of pregnancies was conceived through:
    a. Natural service (bull bred)? ............................................................... S033
    ○ %
    b. AI after detected estrus (natural or induced)? .................................... S034
    ○ %
    c. Timed AI without detected estrus? ..................................................... S035
    ○ %
    d. Embryo Transfer (ET) using superovulated embryo? ....................... S036
    ○ %
    e. Embryo Transfer (ET) using in vitro produced embryo? .................... S037
    ○ %
    Total (should equal 100%) ...................................................................... 100%
    [If Items 14b and 14c = 0, SKIP to Item 19.]

15. Which of the following best describes who performed the majority of AI services in the last 12 months? (Check one only.)
    ○ 1 Owner/operator
    ○ 2 Herdsman
    ○ 3 General employee
    ○ 4 Veterinarian
    ○ 5 AI service/technician
    ○ 6 Other (specify: ________________) S038OTH

16. Has this person who is responsible for the majority of AI services (Item 15) been formally trained (lecture and lab) in performing AI? ................................................................. S039  □ 1 Yes  □ 3 No

17. How many heifers and how many cows were inseminated with sexed semen in the last 12 months?
   a. Heifers ................................................................. S040 ____
   b. Cows ......................................................................... S041 ____

18. For cows in which AI was unsuccessful, what was the typical maximum number of times AI was attempted before these cows were designated for a different strategy (e.g., moved to a bull pen, sold, etc.)? ............... S042 ____

19. Which of the following best describes how frequently pregnancy exams (herd or preg checks) were performed in the last 12 months? (Check one only.)
   □ 1 Weekly
   □ 2 Every 2 weeks
   □ 3 Monthly
   □ 4 Every other month
   □ 5 No pregnancy exams performed
   □ 6 Other (specify: ____________________________) S043OTH S043

   [If Item 19 = 5 (No pregnancy exams performed), SKIP to Item 27.]

20. Which of the following best describes who performed the majority of pregnancy exams on this operation in the last 12 months? (Check one only.)
   □ 1 Private veterinarian
   □ 2 Veterinary technician
   □ 3 Employee veterinarian
   □ 4 Employee (nonveterinarian)
   □ 5 Owner / operator
   □ 6 Other (specify: ____________________________) S044OTH S044

21. How many days postbreeding was the earliest pregnancy diagnosis usually made in the last 12 months? ................................................................. S045 ____ days

22. In the last 12 months, was pregnancy status routinely determined on this operation using:
   a. Rectal palpation? ................................................................. S046 □ 1 Yes  □ 3 No
   b. Ultrasound? ................................................................. S047 □ 1 Yes  □ 3 No
   c. Blood test? ................................................................. S048 □ 1 Yes  □ 3 No
   d. Milk progesterone? ................................................................. S049 □ 1 Yes  □ 3 No
   e. Other? (specify: ____________________________) S050OTH ................................................ S050 □ 1 Yes  □ 3 No

   [If Item 22b = NO, SKIP to Item 26.]

23. In what year was routine ultrasound diagnosis of pregnancy first performed on this operation? ................................................................. S051 ____ year
24. Who owned the ultrasound equipment used for the majority of pregnancy diagnoses in the last 12 months?  
*(Check only one.)*
- [ ] 1 Veterinarian  
- [ ] 2 Dairy operation  
- [ ] 3 Other (specify: ________________________________)

25. In addition to pregnancy diagnosis, which of the following information was collected/evaluated during ultrasound exams in the last 12 months?

- **a.** Twin pregnancies ..................................................................................................................  
  - [ ] 1 Yes  
  - [ ] 2 No

- **b.** Assessment of fetal viability ..................................................................................................  
  - [ ] 1 Yes  
  - [ ] 2 No

- **c.** Noncycling (no heat) cows ...................................................................................................  
  - [ ] 1 Yes  
  - [ ] 2 No

- **d.** Ovarian cysts .........................................................................................................................  
  - [ ] 1 Yes  
  - [ ] 2 No

- **e.** Fetal sexing .............................................................................................................................  
  - [ ] 1 Yes  
  - [ ] 2 No

- **f.** Other (specify: ________________________________)

26. What was the primary method used most often to restrain cows for pregnancy diagnosis?  
*(Check only one.)*
- [ ] 1 Head locks at the feed bunk  
- [ ] 2 Palpation rail  
- [ ] 3 Tie stall/stanchion  
- [ ] 4 Chute  
- [ ] 5 Parlor  
- [ ] 6 Loose in free stalls  
- [ ] 7 Other (specify: ________________________________)

27. Please indicate the level of importance of the following reproductive parameters to you in evaluating reproductive performance in your herd:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Very important</th>
<th>Important</th>
<th>Somewhat important</th>
<th>Not important</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Pregnancy rate (conception rate x heat detection rate)</td>
<td>[ ] 1</td>
<td>[ ] 2</td>
<td>[ ] 3</td>
<td>[ ] 4</td>
</tr>
<tr>
<td>b. Conception rate</td>
<td>[ ] 1</td>
<td>[ ] 2</td>
<td>[ ] 3</td>
<td>[ ] 4</td>
</tr>
<tr>
<td>c. Heat detection rate (animals bred + all eligible animals)</td>
<td>[ ] 1</td>
<td>[ ] 2</td>
<td>[ ] 3</td>
<td>[ ] 4</td>
</tr>
<tr>
<td>d. Days open</td>
<td>[ ] 1</td>
<td>[ ] 2</td>
<td>[ ] 3</td>
<td>[ ] 4</td>
</tr>
<tr>
<td>e. Percentage of herd pregnant</td>
<td>[ ] 1</td>
<td>[ ] 2</td>
<td>[ ] 3</td>
<td>[ ] 4</td>
</tr>
<tr>
<td>f. Calving interval</td>
<td>[ ] 1</td>
<td>[ ] 2</td>
<td>[ ] 3</td>
<td>[ ] 4</td>
</tr>
<tr>
<td>g. Other (specify: ____________)</td>
<td>[ ] 1</td>
<td>[ ] 2</td>
<td>[ ] 3</td>
<td>[ ] 4</td>
</tr>
</tbody>
</table>
Section B—Calving Interventions

28. Does your operation have general guidelines (e.g., standard operating procedures or established protocols) on when to intervene during calving for:
   a. Heifers? ..................................................................................................... S067
   b. Cows? ....................................................................................................... S068

If YES for both, are different guidelines used for heifers compared to cows? S069

29. How many people have any work duties in the calving area? ...................... S070 _____

30. Which of the following training methods in calving intervention are used for owners/employees of this operation?
   a. Video training.................................................................................................. S071
   b. Discussion/lecture .......................................................................................... S072
   c. On-the-job training ......................................................................................... S073
   d. Other training (specify: ___________________) S074OTH ................................. S074

31. Does your operation have a system for scoring calving difficulty?............... S075

   [If Item 31 = NO, SKIP to Item 33.]

32. Does this operation record the calving difficulty score for assisted births? .... S076

33. On average, how many hours pass between observation periods of animals close to calving:
   a. During the day? ............................................................................................ S077 _____ hours
   b. During the night? ........................................................................................... S078 _____ hours

34. When calving is imminent and heifers and cows are restless/off feed, how long (in hours) do you wait before examining or assisting the animal if straining is not observed?
   [Use nearest quarter hour if less than 1 hour.] ............................................ S079/080

35. Once straining is observed in heifers and cows, how long (in hours) do you wait before examining or assisting the animal if delivery of the calf is not progressing?
   [Use nearest quarter hour if less than 1 hour.] ............................................ S081/082

36. Once the water bag appears at the vulva in heifers and cows, how long do you wait (in hours) before examining or assisting the animal?
   [Use nearest quarter hour if less than 1 hour.] ............................................ S083/084
37. Once a decision is made to intervene, which of the following practices are generally implemented? (Answer all questions.)

a. Call veterinarian to assist..........................................................................S085  □  Yes □  No
b. Move the cow to an individual maternity pen ............................................ S086  □  Yes □  No
c. Restrain the cow in a head catch or similar equipment ............................ S087  □  Yes □  No
d. Tie back or hold the cow’s tail out of the way .......................................... S088  □  Yes □  No
e. Wash the perineum area with soap and water ......................................... S089  □  Yes □  No
f. Wear obstetrical gloves............................................................................. S090  □  Yes □  No
g. Clean and disinfect chains or other equipment prior to use in the vagina or uterus .......................................................................S091  □  Yes □  No
h. Use a lubricant .......................................................................................... S092  □  Yes □  No
i. Other (specify: ___________________________) S093OTH.........................S093  □  Yes □  No

If Item 37h = NO, SKIP to Item 39.

38. Do you use the following lubricants during calving intervention?

a. Mineral oil.................................................................................................. S094  □  Yes □  No
b. Soap.......................................................................................................... S095  □  Yes □  No
c. Water......................................................................................................... S096  □  Yes □  No
d. Commercial obstetrical lubricant (e.g., J-Lube) ........................................S097  □  Yes □  No
e. Shortening (e.g., Crisco)........................................................................... S098  □  Yes □  No
f. Other (specify: _________________) S099OTH.............................................S099  □  Yes □  No

39. Do you use the following for pulling calves (direct contact with calf)?

a. Stainless-steel OB chains .........................................................................S100  □  Yes □  No
b. Twine......................................................................................................... S101  □  Yes □  No
c. Rope.......................................................................................................... S102  □  Yes □  No
d. Other (specify: _________________________)S103OTH.............................S103  □  Yes □  No

40. Which of the following methods is most commonly used to apply traction to remove the calf? (Check one only.)

□ 1. One or two people pulling on the chains/rope/twine
□ 2. Ropes tied to posts, etc.
□ 3. Block and tackle
□ 4. Winch/come along
□ 5. Calf jack
□ 6. Other (specify: __________________)S104OTH S104

41. During calving intervention, is traction generally applied? (Check one only.)

□ 1. In conjunction with the cow straining?
□ 2. Continuously?
42. Does this operation ever seek veterinary assistance for difficult deliveries? ☐ 1 Yes ☐ 3 No

If Item 42 = NO, SKIP to Item 45.

43. Would you seek veterinary assistance in the following situations?

a. Unable to correctly position the calf for delivery ........................................ S107 ☐ 1 Yes ☐ 3 No

b. Applied traction for a specific amount of time without progress................ S108 ☐ 1 Yes ☐ 3 No

44. From the time you begin intervening during calving for both heifers and cows, how long (in minutes) on average, do you work on delivering the calf before calling for veterinary assistance? S109/110

45. In the last 12 months, how many heifers and cows:

<table>
<thead>
<tr>
<th></th>
<th>Heifers</th>
<th>Cows</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Calved? (= b + c) .........................................................</td>
<td>S111/117</td>
<td></td>
</tr>
<tr>
<td>b. Calved without assistance? ..................................................</td>
<td>S112/118</td>
<td></td>
</tr>
<tr>
<td>c. Calved with assistance? (= i + ii + iii) ..................................</td>
<td>S113/119</td>
<td></td>
</tr>
<tr>
<td>i. Severe dystocia? (surgical or mechanical extraction) ....................</td>
<td>S114/120</td>
<td></td>
</tr>
<tr>
<td>ii. Mild dystocia? .........................................................................</td>
<td>S115/121</td>
<td></td>
</tr>
<tr>
<td>iii. No dystocia, but assisted anyway .........................................</td>
<td>S116/122</td>
<td></td>
</tr>
</tbody>
</table>

46. How many of the calves born in the last 12 months were stillborn?

(Include those born alive but died prior to 48 hours.) ......................... S123

Of the total number of calves that were stillborn, how many were:

a. Born dead (DOA)? ........................................................................... S124

b. Born alive, but died prior to 48 hours? ........................................... S125

47. For calves that experienced a difficult (assisted) birth, which of the following are generally done within 1 hour after the calf is delivered? (Check all that apply.)

<table>
<thead>
<tr>
<th></th>
<th>Heifers</th>
<th>Cows</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Resuscitate calf with assisted breathing .....................................</td>
<td>S126</td>
<td>☐ 1 Yes ☐ 3 No</td>
</tr>
<tr>
<td>b. Stimulate breathing with nostril stimulus ...................................</td>
<td>S127</td>
<td>☐ 1 Yes ☐ 3 No</td>
</tr>
<tr>
<td>c. Stimulate breathing with drugs (Dopram, etc.) ..............................</td>
<td>S128</td>
<td>☐ 1 Yes ☐ 3 No</td>
</tr>
<tr>
<td>d. Provide supplemental oxygen ....................................................</td>
<td>S129</td>
<td>☐ 1 Yes ☐ 3 No</td>
</tr>
<tr>
<td>e. Hang the calf upside down ..........................................................</td>
<td>S130</td>
<td>☐ 1 Yes ☐ 3 No</td>
</tr>
<tr>
<td>f. Position the calf on its sternum ..................................................</td>
<td>S131</td>
<td>☐ 1 Yes ☐ 3 No</td>
</tr>
<tr>
<td>g. Place the calf in separate area away from the dam .......................</td>
<td>S132</td>
<td>☐ 1 Yes ☐ 3 No</td>
</tr>
<tr>
<td>h. Use a warming box, heat lamp or other source of heat during cold weather .....................................................</td>
<td>S133</td>
<td>☐ 1 Yes ☐ 3 No</td>
</tr>
<tr>
<td>i. Dry calf manually with towels, hair dryer, etc ................................</td>
<td>S134</td>
<td>☐ 1 Yes ☐ 3 No</td>
</tr>
<tr>
<td>j. Try to elicit a suckle response ...................................................</td>
<td>S135</td>
<td>☐ 1 Yes ☐ 3 No</td>
</tr>
<tr>
<td>k. Provide calf coats or calf jackets after calf is dry .......................</td>
<td>S136</td>
<td>☐ 1 Yes ☐ 3 No</td>
</tr>
<tr>
<td>l. Other (specify: .................................................................) S137OTH</td>
<td>S137</td>
<td>☐ 1 Yes ☐ 3 No</td>
</tr>
</tbody>
</table>
Section C—Dehorning Questions

48. In the last 12 months, were heifer calves routinely dehorned while on this operation? ................................................................. S138  □ 1 Yes □ 3 No

[If Item 48 = NO, SKIP to Item 52.]

49. In the last 12 months, what percentage of heifer calves were dehorned by the following methods? What was the average age of calves (in weeks) and were analgesics or anesthetics used?

<table>
<thead>
<tr>
<th>Method</th>
<th>% Heifer Calves</th>
<th>Age (weeks)</th>
<th>Analgesics/Anesthetics</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Hot iron</td>
<td>S139/145/150</td>
<td></td>
<td>□ 1 Yes □ 3 No</td>
</tr>
<tr>
<td>b. Caustic paste</td>
<td>S140/146/151</td>
<td></td>
<td>□ 1 Yes □ 3 No</td>
</tr>
<tr>
<td>c. Tube, spoon, or gouge</td>
<td>S141/147/152</td>
<td></td>
<td>□ 1 Yes □ 3 No</td>
</tr>
<tr>
<td>d. Saws, wire, or Barnes</td>
<td>S142/148/153</td>
<td></td>
<td>□ 1 Yes □ 3 No</td>
</tr>
<tr>
<td>e. Other (specify: ____________)</td>
<td>S143/149/154</td>
<td></td>
<td>□ 1 Yes □ 3 No</td>
</tr>
</tbody>
</table>

Total (should be ≤100%) ............... S144

50. Is surgical dehorning equipment that causes bleeding chemically disinfected between each animal? ............................................. S155  □ 1 Yes □ 2 N/A □ 3 No

51. Who dehorns the majority of heifer calves on this operation? (Check one only.)

□ 1 Owner/operator
□ 2 Employee
□ 3 Veterinarian
□ 4 Other (specify: ________________ ) S156OTH

Section D—Extra Teat Removal

52. In the last 12 months, were extra teats routinely removed from heifer calves? . S157  □ 1 Yes □ 3 No

[If Item 52 = NO, SKIP to Item 55.]

53. In general, at what age (in weeks) were extra teats removed? ................. S158  _____ weeks

54. When extra teats were removed, were analgesics or anesthesia routinely used? ................................................................................. S159  □ 1 Yes □ 3 No

Section E—Tail Docking

55. What percentage of dairy cows on this operation have docked tails? ............. S160  _____ %

[If Item 55 = 0, SKIP to Item 59.]
56. What procedure was most commonly used to dock tails?  
*(Check one only.)*
- □ 1 Band
- □ 2 Surgical removal
- □ 3 Hot knife
- □ 4 Other (Specify: ________________)
- □ 5 Unknown procedure

57. How old were the majority of animals when tails were docked?  
*(Check one only.)*
- □ 1 Less than 2 months
- □ 2 2 months to less than 6 months
- □ 3 6 months to less than 2 years
- □ 4 2 years or older
- □ 5 Unknown

58. When tails were docked, were analgesics or anesthesia routinely used? .................................................................
- □ 1 Yes
- □ 2 Don’t Know
- □ 3 No

---

**Section F—Castration**

59. In the last 12 months, were bull calves routinely castrated while on this operation? .................................................................
- □ 1 Yes
- □ 3 No

*If Item 59 = NO, SKIP to Item 63.*

60. What method was most commonly used to castrate bull calves?  
*(Check one only.)*
- □ 1 Burdizzo (crushes cord/bloodless)
- □ 2 Knife
- □ 3 Band
- □ 4 Other (specify: ________________)

61. At what age (in weeks) were bull calves routinely castrated? ..............................

62. When calves were castrated, were analgesics or anesthesia routinely used? .................................................................
- □ 1 Yes
- □ 3 No
Section G—Hoof Health

Note: An animal can be counted as having more than one case of lameness or gait abnormality if the animal recovered completely from one case, but then became lame again for any reason.

63. In the last 12 months, how many cases of lameness (gait abnormality) occurred on this operation in:
   a. Bred heifers? (Enter N/A if bred heifers are not housed on this operation.) S168
   b. Cows? S169

64. Of the cases of lameness in bred heifers and cows from the previous question, what number of cases were due to digital dermatitis (hairy-heel warts)?
   a. Bred heifers (Enter N/A if bred heifers are not housed on this operation.) S170
   b. Cows S171

65. Which of the following best describes the use of a footbath for cows during the last 12 months? (Check one only.)
   1. Footbath used throughout the year
   2. Footbath used seasonally/occasionally
   3. No footbath used
   4. Other (specify: ________________________) S172OTH

   If Item 65 = 3, SKIP to Item 67.

66. Which of the following footbath medications was most commonly used? (Check one only.)
   1. Copper sulfate
   2. Formalin/formaldehyde
   3. Oxytetracycline
   4. Hydrogen peroxide
   5. Other (list active ingredient: ____________________) S173OTH

67. What percentage of cows had their hooves trimmed at least once in the last 12 months? S174

   If Item 67 = 0, SKIP to Item 69.
68. Which of the following describes who trimmed the majority of the hooves in the last 12 months?
   (Check one only.)
   
   □ 1 Professional hoof trimmer (not this operation’s personnel)
   □ 2 Veterinarian (not this operation’s personnel)
   □ 3 Owner or this operation’s personnel
   □ 4 Other (specify: _____________________________) S175OTH

69. In the last 12 months, how many visits, for the purpose of trimming hooves (as part of a routine trimming program) or for evaluation of lame cows, were made by:

   a. A professional hoof trimmer ................................................................. S176
   b. A veterinarian ..................................................................................... S177
   c. Other (specify: ____________________________) S178OTH .................... S178

Section H—Hemorrhagic Bowel Syndrome

*NOTE: Please read this to the Producer in its entirety.*

Hemorrhagic bowel syndrome (HBS) is a highly fatal intestinal disease of milking cows. HBS is characterized by sudden onset of bloody feces, with or without intestinal obstruction. Cows with HBS have a high death rate, approaching 70 to 80 percent. Sudden death without prior signs is common. Both medical and surgical treatments have been relatively unsuccessful. A bloody bowel accompanied by a blood clot that obstructs the intestine may be observed at necropsy.

70. How many cows with signs consistent with HBS described above do you think you have had on this operation in the last 5 years? ........................................... S179

   If Item 70 = 0, SKIP to Item 76.

71. In what year did the first case of HBS or cow with clinical signs consistent with HBS occur on this operation? ................................................................. S180

72. How many cows with signs consistent with HBS do you think you have had on this operation in the last 12 months? ..................................................... S181

73. In the last 5 years, has this operation implemented preventive measures specifically to reduce or eliminate HBS? ......................................................... S182
   □ 1 Yes □ 3 No

   If Item 73 = NO, SKIP to Item 76.

74. Which of the following preventive measures have been implemented specifically to reduce or eliminate HBS?

   a. Vaccination with a commercial *Clostridium* type A vaccine .................... S183
   □ 1 Yes □ 3 No
   b. Vaccination with an autogenous *Clostridium* type A vaccine ............... S184
   □ 1 Yes □ 3 No
   c. Vaccination with a 7-way clostridial vaccine ........................................ S185
   □ 1 Yes □ 3 No
   d. Incorporated a feed additive (e.g., Omnigen AF®) ............................... S186
   □ 1 Yes □ 3 No
   e. Changed feed ingredients/composition of ration ..................................... S187
   □ 1 Yes □ 3 No
   f. Changed forage management (chop size, source, etc.) ....................... S188
   □ 1 Yes □ 3 No
75. Which of the following best describes the perceived benefits from using the above preventive measures?
(Check one only.)

- ☐ 1 Great reduction in HBS cases (75-100% reduction)
- ☐ 2 Moderate reduction in HBS cases (50-74% reduction)
- ☐ 3 Reduction in HBS cases (25-49% reduction)
- ☐ 4 Slight reduction in HBS cases (1-24% reduction)
- ☐ 5 No reduction in HBS cases

Section I—Treatment Practices

76. How many injections of any kind did a dairy cow typically receive in the last 12 months? ......................................................................................................... S190 _____

77. Of all injections administered on this operation, what percentage were administered by farm personnel? ................................................................. S191 _____ %

78. Of all injections administered on this operation, what percentage were:
   a. Intramuscular (IM)? .................................................................................. S192 _____ %
   b. Subcutaneous (SQ)? ................................................................................ S193 _____ %
   c. Intravenous (IV)? .................................................................................... S194 _____ %

   Total (should equal 100%) ........................................................................ 100%

79. What percentage of the intramuscular (IM) injections were administered for each of the following purposes?
   a. Antibiotic injection ..................................................................................... S195 _____ %
   b. Production enhancement (e.g., bST) ......................................................... S196 _____ %
   c. Reproductive injection ............................................................................. S197 _____ %
   d. Vaccination .............................................................................................. S198 _____ %
   e. Other ....................................................................................................... S199 _____ %

   Total (should equal 100%) ........................................................................ 100%
80. For each purpose of injection (antibiotics, production enhancement, reproductive, vaccination, and other), what percentage of intramuscular (IM) injections were administered in the following body locations?

<table>
<thead>
<tr>
<th>Body Location</th>
<th>IM</th>
<th>Production Enhancement</th>
<th>Reproductive</th>
<th>Vaccination</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Neck</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Shoulder</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Upper Hip</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. Hind Leg</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e. Other</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

81. Which of the following cattle-handling facilities were primarily used for each type of injection for both heifers and cows?

**Codes:**
1 = Stanchion/tie stall  
2 = Lock-ups  
3 = Chute/head gate  
4 = Loose in freestalls  
5 = Palpation rail  
6 = Parlor  
7 = N/A

<table>
<thead>
<tr>
<th>Injection Type</th>
<th>Heifers</th>
<th>Cows</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. IM</td>
<td>_____ code</td>
<td>_____ code</td>
</tr>
<tr>
<td>b. SQ</td>
<td>_____ code</td>
<td>_____ code</td>
</tr>
<tr>
<td>c. IV</td>
<td>_____ code</td>
<td>_____ code</td>
</tr>
</tbody>
</table>
82. When farm personnel administered injections in the last 12 months, how many injections were usually given before changing needles? (Check one only.)

☐ 1 New needle for every injection
☐ 2 2 to 10 injections per needle
☐ 3 11 to 20 injections per needle
☐ 4 21 to 30 injections per needle
☐ 5 More than 30 injections per needle

83. Does this operation keep a written or computerized record for each cow that received a treatment that requires a withdrawal time before the cow can be sent to market?

☐ 1 Yes ☐ 2 No

Section J—Nutrient Management

84. Are the following manure-handling methods used in cow and weaned-heifer housing areas?

<table>
<thead>
<tr>
<th>Method</th>
<th>Cow Areas</th>
<th>Weaned-Heifer Areas</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Manure left on pasture</td>
<td>□ 1 Yes □ 2 N/A □ 3 No</td>
<td>□ 1 Yes □ 2 N/A □ 3 No</td>
</tr>
<tr>
<td>b. Dry lot scraped</td>
<td>□ 1 Yes □ 2 N/A □ 3 No</td>
<td>□ 1 Yes □ 2 N/A □ 3 No</td>
</tr>
<tr>
<td>c. Gutter cleaner</td>
<td>□ 1 Yes □ 3 No</td>
<td>□ 1 Yes □ 3 No</td>
</tr>
<tr>
<td>d. Alley scraper (mechanical or tractor)</td>
<td>□ 1 Yes □ 3 No</td>
<td>□ 1 Yes □ 3 No</td>
</tr>
<tr>
<td>e. Alley flush with fresh water</td>
<td>□ 1 Yes □ 3 No</td>
<td>□ 1 Yes □ 3 No</td>
</tr>
<tr>
<td>f. Alley flush with recycled water</td>
<td>□ 1 Yes □ 3 No</td>
<td>□ 1 Yes □ 3 No</td>
</tr>
<tr>
<td>g. Slotted floor</td>
<td>□ 1 Yes □ 3 No</td>
<td>□ 1 Yes □ 3 No</td>
</tr>
<tr>
<td>h. Bedded pack (manure pack)</td>
<td>□ 1 Yes □ 3 No</td>
<td>□ 1 Yes □ 3 No</td>
</tr>
<tr>
<td>i. Manure vacuum</td>
<td>□ 1 Yes □ 3 No</td>
<td>□ 1 Yes □ 3 No</td>
</tr>
<tr>
<td>j. Other (specify: _______ ) (S242OTH)</td>
<td>□ 1 Yes □ 3 No</td>
<td>□ 1 Yes □ 3 No</td>
</tr>
</tbody>
</table>

If Items 84b-j all checked NO, SKIP to Item 98.

85. Of the manure-handling methods used in the previous question, which one best describes how the majority of manure is handled?

☐ ______ letterCow area ☐ ______ letterWeaned-heifer area

(Enter letter that corresponds with response, i.e., “a” for Manure left on pasture, “c” for Gutter cleaner, etc.)
86. Are the following waste-storage or treatment systems used on this operation?
   a. Store in manure spreader (spread on a daily or almost daily basis) .......... S255 □ 1 Yes □ 3 No
   b. Below-floor slurry or deep pit ................................................................. S256 □ 1 Yes □ 3 No
   c. Slurry stored in tank (either above or below ground)............................. S257 □ 1 Yes □ 3 No
   d. Slurry or liquid manure stored in earthen basin and NOT treated .......... S258 □ 1 Yes □ 3 No
   e. Treatment lagoon–Not mechanically aerated ....................................... S259 □ 1 Yes □ 3 No
   f. Treatment lagoon–Mechanically aerated............................................... S260 □ 1 Yes □ 3 No
   g. Manure pack (inside barn) ................................................................. S261 □ 1 Yes □ 3 No
   h. Outside storage for solid manure not in dry lot or pen........................ S262 □ 1 Yes □ 3 No
   i. Outside storage for solid manure within dry lot or pens........................ S263 □ 1 Yes □ 3 No
   j. Storage of solid manure in a building without cattle access .............. S264 □ 1 Yes □ 3 No
   k. Storage of solid manure with picket dam .......................................... S265 □ 1 Yes □ 3 No
   l. Composted (actively managed to produce a composted material) ...... S266 □ 1 Yes □ 3 No
   m. Collection of methane/biogas ............................................................... S267 □ 1 Yes □ 3 No
   n. Solid separator .................................................................................. S268 □ 1 Yes □ 3 No
   o. Other (specify: ________________________) S269OTH.......................... S269 □ 1 Yes □ 3 No

87. Of the storage or treatment systems used in the previous question, which one best describes the storage and treatment of the majority of:
   a. Solid manure? ...................................................................................... S270 _____ letter
   b. Liquid or slurry manure? ..................................................................... S271 _____ letter

(Enter letter that corresponds with response (i.e., “a” for Store in manure spreader, “b” for Below-floor slurry, etc., or put N/A if the manure type is not stored or treated.)

88. Assuming your facility was completely emptied of manure, and it was operating at full animal capacity, how many days could you operate and store manure before manure must be removed from the storage facility?

   ____ Days OR ____ Months OR ____ Years

89. Does this operation make use of manure by:
   a. Applying manure to land either owned or rented? ......................... S275 □ 1 Yes □ 3 No
   b. Selling it or receiving other compensation? ................................. S276 □ 1 Yes □ 3 No
   c. Giving it away? .............................................................................. S277 □ 1 Yes □ 3 No
   d. Using composted manure as bedding? ....................................... S278 □ 1 Yes □ 3 No
   e. Other? (specify: ________________________) S279OTH..................... S279 □ 1 Yes □ 3 No

90. Of the manure uses described in the previous question, which one best describes the use of the majority of:
   a. Solid manure? .................................................................................... S280 _____ letter
   b. Liquid or slurry manure? ................................................................. S281 _____ letter

(Enter letter that corresponds with response (i.e., “a” for Apply manure to land, “b” for Sell it or receive, etc., or put N/A if that manure type is not used.)

If Item 89a = NO (manure is not applied to land), SKIP to Item 98.
91. Are the following methods used to apply manure to land owned or rented by this operation?

<table>
<thead>
<tr>
<th>Method</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Broadcast/solid spreader</td>
<td>S282</td>
</tr>
<tr>
<td>b. Surface application by tank wagon or tank truck</td>
<td>S283</td>
</tr>
<tr>
<td>c. Subsurface injection by tank wagon, tank truck, or tractor</td>
<td>S284</td>
</tr>
<tr>
<td>d. Irrigation/sprinkler</td>
<td>S285</td>
</tr>
<tr>
<td>e. Other (specify: ______________________)</td>
<td>S286OTH</td>
</tr>
</tbody>
</table>

92. Is manure incorporated into the soil within 24 hours after application, including subsurface injection?  
*Check one only.*

- ☐ 1 Always or almost always
- ☐ 2 Sometimes
- ☐ 3 Never  

93. In the last 12 months, has the nutrient content of manure been analyzed for:

<table>
<thead>
<tr>
<th>Nutrient</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Nitrogen?</td>
<td>S288</td>
</tr>
<tr>
<td>b. Phosphorus?</td>
<td>S289</td>
</tr>
<tr>
<td>c. Potassium?</td>
<td>S290</td>
</tr>
</tbody>
</table>

94. Are the following used to determine how much or how frequently manure is applied to the land?

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Crop nitrogen requirement</td>
<td>S291</td>
</tr>
<tr>
<td>b. Crop phosphorus requirement</td>
<td>S292</td>
</tr>
<tr>
<td>c. Manure volume/acreage available</td>
<td>S293</td>
</tr>
<tr>
<td>d. Soil quality improvement</td>
<td>S294</td>
</tr>
<tr>
<td>e. Other criteria (specify: ______________________)</td>
<td>S295OTH</td>
</tr>
</tbody>
</table>

95. What is the minimum distance between where manure is ever applied and any surface water such as a lake, pond, stream, or river?  

96. Which of the following best describes how often liquid manure is applied to owned or rented land, by season:
*(Enter one code only for each season.)*

<table>
<thead>
<tr>
<th>Code</th>
<th>Season</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 = Daily</td>
<td>Spring</td>
</tr>
<tr>
<td>2 = Weekly</td>
<td>Summer</td>
</tr>
<tr>
<td>3 = 2 to 3 times a month</td>
<td>Fall</td>
</tr>
<tr>
<td>4 = Monthly or less often</td>
<td>Winter</td>
</tr>
</tbody>
</table>

97. Which of the following best describes how often solid manure is applied to owned or rented land, by season:
*(Enter one code only from Item 96 for each season.)*

<table>
<thead>
<tr>
<th>Code</th>
<th>Season</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Spring</td>
</tr>
<tr>
<td></td>
<td>Summer</td>
</tr>
<tr>
<td></td>
<td>Fall</td>
</tr>
<tr>
<td></td>
<td>Winter</td>
</tr>
</tbody>
</table>
98. Is manure applied to the following actively growing plants:
   a. Pasture or hay crop? ................................................................. S306 □ Yes □ No
   b. Forage to be ensiled? ............................................................. S307 □ Yes □ No
   c. Other forage crops? ............................................................... S308 □ Yes □ No
   d. Grain or oilseed crops? .......................................................... S309 □ Yes □ No
   e. Other crops? (specify: ______________________) S310OTH .............. S310 □ Yes □ No

99. Does this operation have a **written** plan that addresses nutrient management such as land treatment practices or manure storage structures? ................................................................. S311 □ Yes □ No
   If YES, was the plan:
   a. Developed in cooperation with the USDA Natural Resource Conservation Service (NRCS) or a local conservation district? .......... S312 □ Yes □ No
   b. Implemented to help satisfy a State or local regulatory requirement? ..... S313 □ Yes □ No
   c. Part of USDA voluntary cost share program? .............................. S314 □ Yes □ No

100. Has this operation consulted with any of the following about waste management during the last 12 months?
   a. University/extension personnel .................................................. S315 □ Yes □ No
   b. Private nutrient management consultant ..................................... S316 □ Yes □ No
   c. Natural Resource Conservation Service personnel (NRCS) .......... S317 □ Yes □ No
   d. State or local department of natural resources personnel ............. S318 □ Yes □ No
   e. State or local department of agriculture personnel ...................... S319 □ Yes □ No
   f. Agronomist/crop consultant ..................................................... S320 □ Yes □ No
   g. Consulting nutritionist ............................................................. S321 □ Yes □ No
   h. Environmental engineering consultant ...................................... S322 □ Yes □ No
   i. Private veterinary practitioner .................................................. S323 □ Yes □ No
   j. Other (specify: ______________________) S324OTH ......................... S324 □ Yes □ No

101. Which of the following best describes how you would classify or how this operation is classified regarding Concentrated Animal Feeding Operations (CAFOs) under current federal EPA guidelines:
   (Check one only.)
   □ 1 Never heard of CAFO
   □ 2 Have heard of CAFO, but unsure how my operation is or will be classified
   □ 3 My operation is **not** or will likely **not** be classified as a CAFO
   □ 4 My operation is or will likely be classified as a CAFO S325
1. Total time for interview (include time to discuss the program and complete the questionnaire). If more than one data collector present, enter the combined time: \[ \text{SITIME} \] minutes

2. Total travel time (round trip). If more than one data collector present, enter the combined time: \[ \text{STTIME} \] minutes

3. Data collector(s): (Enter the number for each category.)
   - Federal VMO
   - Federal AHT
   - State person
   - Other
   - Other (SVMO/SAHT/SST/SOTH)

4. Enter response code 99 if questionnaire is completed or enter one code of 0 - 7 that best describes the reason why the owner is not participating: \[ \text{SRCO} \] code
   - 99 – Survey completed
   - 00 – Producer not contacted by VMO
   - 01 – Poor time of year or no time
   - 02 – Does not want anyone on operation
   - 03 – Bad experience with government veterinarians
   - 04 – Does not want to do another survey or divulge information
   - 05 – Told NASS they did not want to be contacted
   - 06 – Ineligible (no dairy cows)
   - 07 – Other reason (explain below)

5. Producer data quality: \[ \text{SPDQ} \]
   - ☐ 1 Good to Excellent
   - ☐ 2 OK
   - ☐ 3 Poor

6. Did the Producer use written or computerized records to assist in answering this survey? \[ \text{SREC} \]
   - ☐ 1 Yes
   - ☐ 3 No

Comments regarding this questionnaire or operation:

VMO or AHT signature:

TO BE ANSWERED BY THE COORDINATOR:

Field data quality: \[ \text{SFDQ} \]
   - ☐ 1 Good to Excellent
   - ☐ 2 OK
   - ☐ 3 Poor