

**APPENDIX N BULK MILK TANKER SCREENING TEST FORM**

**IDEXX - NEW SNAP® BETA-LACTAM TEST  
(Raw Commingled Cow, Raw Commingled Camel, and Raw Commingled Goat Milk)  
IMS # 9-11**

[Unless otherwise stated all tolerances are  $\pm 5\%$ ]

**GENERAL REQUIREMENTS**

1. See Appendix N General Requirements (App. N GR) items 1-8 & 15 \_\_\_\_\_

**SAMPLES**

2. See App. N GR item 9 \_\_\_\_\_

**APPARATUS & REAGENTS**

3. **Equipment** \_\_\_\_\_

- a. Heater block with SNAP insert thermostatically controlled at  $45 \pm 5^\circ\text{C}$  \_\_\_\_\_

1. Check temperature by placing standardized temperature measuring device in a tube containing liquid (bulb submersed); maintain records \_\_\_\_\_

2. Or, use 6-inch partial immersion thermometer placed directly into small thermometer well in middle of heating unit; maintain records \_\_\_\_\_

3. Temperature measuring device for each incubator (App. N GR item 3) \_\_\_\_\_

- b. IDEXX Readers for SNAP devices, with printer or data download capability \_\_\_\_\_

1. SNAPshot® Reader \_\_\_\_\_

- a. Check Set, Part Number 87-05856-01 (black skirt) \_\_\_\_\_

2. SNAPshot® DSR Reader \_\_\_\_\_

- a. Check Set, Part Number 87-14761-00 (blue skirt) \_\_\_\_\_

- c. Pipettor - 450  $\mu\text{L}$  and disposable tips (see App. N GR item 7) \_\_\_\_\_

- d. Or single use 450  $\mu\text{L}$  poly-pipet with indicator line to measure amount of sample, supplied by manufacturer (**screening only**) \_\_\_\_\_

- e. Timer \_\_\_\_\_

**4. Reagents**

a. SNAP Kit

Lot #: \_\_\_\_\_ Exp Date: \_\_\_\_\_

QC Date: \_\_\_\_\_ By: \_\_\_\_\_

1. Sample tubes containing reagent pellet

b. Positive Control

1. IDEXX Penicillin Positive Control

Lot #: \_\_\_\_\_ Exp Date: \_\_\_\_\_

c. Negative Control

1. Previously tested negative raw milk (item 5.d)

**5. Reagent stability**

a. Kits must be received within 72 hours if shipped non-refrigerated; over 72 hours must be shipped refrigerated

b. Store kits at 0-7°C, maintain no longer than manufacturer's expiration date

c. Positive Control- Manufacturer supplied, maintain no longer than manufacturer's expiration date

1. Store according to label instructions

2. Reconstitute as per manufacturer's instructions with fresh or frozen previously screened beta-lactam negative raw milk.

3. Positive control must produce greater than 1.2 on the IDEXX reader; maintain records

Reader value: \_\_\_\_\_

4. Store reconstituted positive control at 0.0-4.5°C for no more than 24 hours

Lab Prep. Date: \_\_\_\_\_ Lab Exp. Date: \_\_\_\_\_

d. Negative Control - beta-lactam negative raw milk (fresh or frozen) \_\_\_\_\_

1. Negative control must produce less than 0.95 on the IDEXX reader; (SNAP Test Negative Control can be any of the approved species milk); maintain records \_\_\_\_\_

Sample ID: \_\_\_\_\_ Date Tested: \_\_\_\_\_

Reader value: \_\_\_\_\_

2. Store fresh negative control milk at 0.0-4.5°C for no more than 72 hours \_\_\_\_\_

3. Negative control milk frozen for later use \_\_\_\_\_

a. Aliquot within 24 hours and freeze at -15°C or colder in a non-frost-free freezer or in an insulated foam container in a frost-free freezer; use within 2 months \_\_\_\_\_

Lab Prep. Date: \_\_\_\_\_ Lab Exp. Date: \_\_\_\_\_

b. Thaw frozen milk at 0.0-4.5°C \_\_\_\_\_

c. Once thawed mix thoroughly, **Do Not** use if noticeable protein precipitation is present after thawing \_\_\_\_\_

d. Thawed negative control milk held at 0.0-4.5°C and used within 24 hours \_\_\_\_\_

4. Milk controls may not be refrozen \_\_\_\_\_

**6. Daily Performance and Operation Checks (see App. N GR item 10)** \_\_\_\_\_

a. Read Performance Check Set (Device #1 as Negative and Device #2 as Positive) \_\_\_\_\_

b. Both devices must read within the limits as indicated on the storage box label of the check set devices \_\_\_\_\_

Positive Range: \_\_\_\_\_ Negative Range: \_\_\_\_\_

c. If check sets fail, call IDEXX before proceeding \_\_\_\_\_

**TECHNIQUE**

**7. Test Procedure** \_\_\_\_\_

a. Set out required number of SNAP devices, sample tubes and pipets for the samples to be tested \_\_\_\_\_

1. Discard unused, un-refrigerated devices at the end of the day \_\_\_\_\_

- b. Pre-warm heater block(s) to  $45\pm 5^{\circ}\text{C}$ , and maintain  $45\pm 5^{\circ}\text{C}$  range for at least 5 min before beginning the test \_\_\_\_\_
  - 1. Check initial pre-heating with a temperature measuring device (see App. N GR item 3); maintain records \_\_\_\_\_
  - 2. Continuous use block heaters, check temperature daily with temperature measuring device (see App. N GR item 3); maintain records \_\_\_\_\_
- c. Label each device and sample tube \_\_\_\_\_
- d. Place device(s) on incubator block(s) \_\_\_\_\_
- e. Verify that blue reagent pellet is in bottom of tube before removing cap. If not in bottom, tap to bring down \_\_\_\_\_
- f. Remove and discard sample tube cap(s) \_\_\_\_\_
- g. Mix milk sample(s)/control(s) 25 times in 7 sec with a 1 ft movement or vortex for 10 sec at maximum setting; use within 3 min (samples must be in appropriate containers to allow the use of vortexing) \_\_\_\_\_
- h. Add 450 uL of mixed sample/control to corresponding tube(s) \_\_\_\_\_
  - 1. Using Pipettor (item 3.c) with a new tip for each sample/control draw up 450  $\mu\text{L}$  avoiding foam and bubbles \_\_\_\_\_
    - a. Remove tip from liquid \_\_\_\_\_
    - b. While holding the pipettor vertically, expel test portion to sample tube \_\_\_\_\_
  - 2. Using a new manufacturer provided single-use 450  $\mu\text{L}$  poly-pipet (item 3d.) for each sample/control (**Screening Only**) \_\_\_\_\_
    - a. Draw up 450 uL of sample to indicator line, avoiding foam and bubbles \_\_\_\_\_
    - b. Remove tip from liquid \_\_\_\_\_
    - c. While holding poly-pipet vertically, expel test portion to sample tube \_\_\_\_\_
- i. Agitate sample tube(s) to dissolve reagent pellet \_\_\_\_\_
- j. Place tube(s) in heater block next to device with the corresponding ID \_\_\_\_\_
- k. Incubate tube(s) for 5 min (use timer) at  $45\pm 5^{\circ}\text{C}$  \_\_\_\_\_
- l. After incubation, pour contents of each tube into sample well of corresponding device \_\_\_\_\_

- m. Watch blue activation circle, as it begins to disappear push the activator firmly until it "snaps" flush with the body of the SNAP device (device remains on heater block) \_\_\_\_\_
- n. Incubate device for 4 min (use timer) at 45±5°C \_\_\_\_\_
- o. At the end of incubation, visually inspect the control and test spots. The test is invalid and the same sample should be retested with a new SNAP device if:
  - 1. The control spot fails to develop color \_\_\_\_\_
  - 2. Blue streaking occurs in the background or the background is the same color as the sample or control spots \_\_\_\_\_
  - 3. The sample or control spots are not uniform in color or exhibit poor spot quality \_\_\_\_\_
- p. Insert only valid tests in the reader **IMMEDIATELY (no longer than 30 sec)** after completion of incubation \_\_\_\_\_

**8. Interpretation with Idexx Reader for SNAP Devices** \_\_\_\_\_

- a. IDEXX Reader for SNAP devices automatically prints results as Positive or Negative (NF) \_\_\_\_\_

**9. Verification of Initial Positive Tanker Samples (see App. N GR item 11); Confirmation of Presumptive Positive Tanker Samples (see App. N GR item 12); and Traceback of Producer(s) on a Confirmed Positive Tanker (see App. N GR item 13)** \_\_\_\_\_

**10. Reporting (see App. N GR item 14)** \_\_\_\_\_