NAHMS Dairy 2014 Study
Cheat Sheet for IDEXX Snap BVD

Storage
1. Store the SNAP BVD Test (device and conjugate) at 2–8°C.
2. Remove enough components from refrigeration at least 30 min before needing them to reach 18–30°C.

Precautions
1. Betadine (or other iodine) CANNOT be used as a disinfectant when obtaining ear notches (interferes with test).
2. Do NOT perform test outside or in direct sunlight.
3. Do NOT cross contaminate sample collection devices (ear notcher). Soak in disinfectant before and after each sample collection.
4. Do NOT pipette conjugate from its bottle using a pipette that has been in contact with a sample.
5. Do NOT mix components from kits with different lot numbers.
6. Do NOT reuse pipettes that have been in contact with a sample.
7. ALWAYS use one hand to stabilize SNAP BVD device during activation step to prevent splashing.

Sample Information
1. Ear notches must measure at least 1 cm on one side (cut side).
2. Place into capped vial provided with SNAP test. LABEL THE VIAL WITH CALF ID.
3. Ear notches can be refrigerated dry or up to 3 days at room temperature.
4. Ear notches can be frozen for prolonged periods (could be useful if producer feels uncomfortable performing test and you will be in the area later).

Test Procedure Large Ear Notch
1. Allow all components to equilibrate at 18–30°C for at least 30 min.
2. Dispense: 1.5 mL of conjugate into vial containing the ear notch.
   a. If tissue sticks to side, push it down with pipette.
   b. Discard pipette after touching sample.
4. Incubate: At room temperature for at least 10 min up to 1 hr.
5. Unwrap and place SNAP BVD device on a flat surface—must be kept horizontal for accurate results. When doing multiple samples label the devices to match Calf ID.
6. Pour: Or transfer the first sample (if you kept the same pipette for that vial) contents of the vial into the sample well. (Basin of device should be full—about 1 mL.)
7. Watch: Sample will flow across the result window, reaching the activation circle in approximately 15–60 sec. Watch carefully for the sample or blue color to appear in the activation circle.
8. SNAP! When color first appears in activation circle, PUSH activator down firmly until it is flush with the device body. Push hard!
9. If multiple samples, start next sample at step 6.
10. READ: Observe test result at 10 min (range 10–15 min). Look for blue spots in test window.
Interpreting the Test Results:

Spot Locations of Device when Removed from Bag

Assay Validity Requirements
- Positive Control Spot develops a blue color.
- Negative Control Spot shows no additional color development greater than the background.

Assay Interpretation
- **Positive Results (PI Status)** — the sample is considered positive if the blue color that develops in the sample spot is **more intense** than the background.

  Note: A positive result in the SNAP BVD test, or other test methods including PCR, may not always indicate persistently infected animals. A definitive diagnosis requires a second test using a fresh sample taken three weeks later. This second sample should also be positive in order to confirm PI status.

- **Negative Results (Non-PI Status)** — the sample is considered negative if the blue color in the sample spot is **equal to or less intense** than the background.

Invalid Results
- **Background** — If the sample is allowed to flow past the Activation Circle, background color may result. Some background color is normal. However, if colored background obscures test result, repeat the test.

- **No Color Development (Positive Control spot)** — If positive control does not develop color, repeat the test.

- **Color Development (Negative Control spot)** — If the negative control develops color that is more intense than the surrounding matrix background in the device, repeat the test.