

PINKEYE

DIAGNOSTIC SAMPLES



To maximize recovery (culture) of pathogens associated with pinkeye, please consider the following suggestions.

Selecting the proper swab:

Use Amies Culturettes or similar (culturettes containing bacterial transport media) for bacterial culture.



Use viral/mycoplasma swabs and transport media for culture of *Mycoplasma bovis* or *Myco. bovoculi* as well as possible viral pathogens.



(Note: bacteria cannot be cultured from the viral/mycoplasma swabs.)

Collecting the sample:

Select animals that are in the early (acute) stage of infection, exhibiting excessive lacrimation (tearing) but prior to development of any corneal lesions. The eye should be swabbed before treatment. To collect samples, swab under the lower conjunctiva (eye-lid).



The swab should then be inserted into the appropriate transport media tube. (Note: part of the swab “stick” will need to be broken off to allow the cap to be replaced in the tube.)

Submitting the sample:

Swabs should be refrigerated immediately after sampling. The samples should be shipped on ice in an insulated shipping container. Shipping over a weekend is **not** recommended. Next day (overnight) shipping is strongly recommended.

Please contact Newport Laboratories if you have any questions.

800-220-2522



How long have we been battling pinkeye?

“Epidemic ophthalmia” (of cattle) is a disease of the eyes which takes an epidemic form... (and) soon spreads with more or less severity among the rest of the herd as well as neighboring herds with which such animals may come in contact. The animal appears in a great deal of pain all the time until it becomes totally blind.”

Illustrated American Stock Book (1894)

The Role of *Moraxella bovoculi* (formerly *Moraxella ovis* and *Branhamella ovis*)

“... anecdotal evidence exists of autogenous vaccination with *Mor. bovoculi* bacterins being successful in preventing IBK. These observations suggest a role for *Mor. bovoculi* in IBK pathogenesis.”

“... vaccination against *Mor. bovis* and *Mor. bovoculi* may be important when both organisms are circulating in a herd.”

“During vaccine breaks in (vaccinated) herds, ... culturing eyes from IBK-affected cattle is recommended to determine whether *Mor. bovis*, *Mor. bovoculi* or both organisms are present”

Angelos, Vet Clin Food Animal 26 (2010)

The Possible Role of *Mycoplasma bovoculi*

Mycoplasma bovoculi has been identified as a possible precursor to *Moraxella spp.* infection of the eye. *Myco. bovoculi* may infect the superficial epithelial cells of the cornea, resulting in “dark cells”. These dark cells may be more prone to bacterial infection. (D. Rogers, UNL VDL, Personal Communication, 2010)

Mycoplasma bovoculi may be diagnosed by antigen detection PCR and the prevalence is approximately 40% based on results in the Newport Diagnostic Lab. However culture can be problematic as the PCR signals are weak and the organism is quite fastidious. Proper sampling and shipping procedures are important in maximizing the chances of recovering the organism for possible bacterin production:

- Use viral/mycoplasma transport swabs
- Refrigerate samples immediately after sampling
- Ship on ice, using next day (over-night) shipping



Mycoplasma testing should be specifically requested on the submission form.

Please contact Newport Laboratories if you have any questions.

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