



# Technical Bulletin

## Microbiology-Ova and Parasites

### “Facts on Feces”

It is well known that the fecal ova and parasite (O&P) examination is a valuable diagnostic tool in the veterinary practice. Animals can suffer needlessly with undiagnosed parasitic diseases that can be treated safely and effectively. These diseases can also have an impact on human health. These two reasons alone are enough to warrant the need for an accurate and thorough testing method.

Here at Phoenix Central Laboratory we have been performing a multi-step O&P examination for several years. We did the research and we performed the comparison studies. As a result of our studies we have determined that the most consistently accurate O&P flotation procedure for diagnosing parasitic intestinal infections is comprised of the following:

- 1). Gross examination for intact worms or segments.
- 2). Direct microscopic examination for motile trophozoites and nematode larvae.
- 3). Filtering of the fecal specimen to remove gross debris that could interfere with parasite detection.
- 4). Flotation medium: Sheather's sugar solution was found to be superior to salt solutions (we compared it to zinc sulfate). Our study confirmed that the sugar solution is optimal for a concentration method that incorporates centrifugation. This result is substantiated by the "Companion Animal Parasite Council" ([www.capcvet.org](http://www.capcvet.org)).
- 5). Centrifugation: Our method incorporates 2 stages of centrifugation to eliminate debris and enable flotation (and detection) of the ova and/or parasites that may be present. This technique has proven to be more sensitive than a simple flotation method.
- 6). Slide examination: The slide is thoroughly examined by one of our microbiology staff. These staff members are skilled in microscopy with degrees in microbiology and/or medical technology.

**Important to note:** *The ability to recover and identify fecal parasites can be handicapped by an inadequate amount of specimen. If the stool is formed, the minimum amount of specimen required would be one gram (picture a ½ inch cube). If the fecal specimen is soft, double this amount. If the fecal specimen is liquid, try to submit at least 6 times this amount. Of course we understand that collection can sometimes be a problem. We always attempt to do the best we can with what is submitted.*

Additional tests that are available from Phoenix Central Laboratory for a complete fecal analysis include the Clostridium perfringens enterotoxin test, Trichomonas cultures, the Trichrome stain (for protozoa, including the entamoeba), and the Giardia/Cryptosporidia immuno-fluorescent antibody test.