



14R0065

TUFTS UNIVERSITY  
School of Veterinary Medicine

Division of Laboratory Animal Medicine

Tufts University School of Veterinary Medicine  
200 Westboro Road, North Grafton, MA  
1999 Annual Report of Research Facility  
Registration No. 14-R-0065

Explanation for the "number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests."

Twenty-four calves were used to produce large numbers of *Cryptosporidium parvum* oocysts for use in several research programs. Cell culture techniques do not produce significant numbers of organisms necessitating the *in vivo* model for propagation. Four days after oral inoculation, the calf develops diarrhea and begins to shed oocysts. For approximately 10 days during collection of oocysts, the calf may experience some discomfort or distress caused by the self-limiting diarrhea. During this time, the calf is closely monitored at least 3 times daily and usually maintains normal appetite, activity level, and hydration status. Calves are euthanized approximately 10 days after the onset of clinical signs as the level of oocyst shedding declines. Since shedding of large numbers of oocysts is dependent on the development of diarrhea, antidiarrheal agents and motility modifiers cannot be administered to the calves. Although not expected, calves developing significant signs of distress, including dehydration, depression, or anorexia are euthanized immediately.

Two hundred and twelve piglets were used to study various enteric pathogens including cryptosporidia, microsporidia, *Escherichia coli*, *Clostridium difficile*, and *Candida albicans*. Piglets may develop moderate diarrhea after oral inoculation and may experience some discomfort or distress caused by the diarrhea for the duration of the 7-21 day experimental infection. Antidiarrheal treatments cannot be administered in order to study the progression of the disease. Piglets are closely monitored at least 3 times daily and those developing significant signs of distress, including dehydration, depression, or anorexia are euthanized immediately.

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Site:001 Status: Active	TUSVM Division of Teaching & Research Resources Peabody Pavillion 200 Westboro Road North Grafton, MA 01536 County: Worcester	Contact Person: b6, b7c
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Site:001 Status: Active	TUSVM Division of Teaching & Research Resources Beef Barn 200 Westboro Road North Grafton, MA 01536 County: Worcester	Contact Person: b6, b7c