Environmental Mastitis
Dr. Donald E. Pritchard
Extension Dairy Specialist, NCSU

Environmental bacteria are the main type of pathogens causing mastitis in many dairy herds. While most producers know what they should be doing to minimize environmental mastitis in their herds, it can be helpful to periodically review recommended practices. In the proceedings of the 2004 regional meeting of the National Mastitis Council, faculty from the College of Veterinary Medicine at the University of Minnesota gave their suggestions for controlling environmental mastitis. They presented the following information.

Most critical factors to pay attention to:
1. keep cows’ udders, feet, legs, and flanks clean at all times
2. use consistent and effective pre-milking cow preparation procedures
   - completely cover the teat skin with pre-dip
   - have direct contact of teat skin with pre-dip (not over top of manure)
   - target teat ends for cleaning
   - have complete and thorough drying of teats prior to unit attachment
3. reduce levels of bacteria in bedding material
   - use adequate amounts of bedding material
   - for organic bedding: clean daily the back one-half of the stall and add fresh bedding to that area only. Do not move bedding from the front to the back of the stall.
   - for sand bedded stalls: groom and clean 3 times daily. Only groom (rake) 1-2 inches down). Ensure good air movement to facilitate drying.
4. scrape alleys 3 times per day – make sure cows do not walk through manure while going to or coming from the parlor
5. give close attention to dry cow housing, maintain bedding at least twice daily and make sure the animals have adequate nutrition

Other factors to give attention to:
1. consistent use of an approved teat dip for post-dipping – 80% of teat covered each time
2. have appropriate vaccination programs, including J5 core antigen vaccines
3. provide appropriate nutrition with vitamin E and selenium supplementation
4. proper use of teat sealant and barrier dips during the dry period
5. appropriate use of dry cow therapy
6. limit over crowding

Monitor these records:
1. bulk tank environmental bacteria counts – should be in the low range
2. clinical mastitis records
3. clinical cases and other individual cow culture information
4. cleanliness scoring of udders and cows
Producers should be able to focus their attention on prevention practices, rather than on treating environmental mastitis cases. A more economical approach to managing environmental mastitis should be realized by following the above listed guidelines. I encourage producers to discuss environmental mastitis management practices with their veterinarian, extension person, milk handler field representative, or other competent consultant.