AG ENGINEERING EDGE
Answers to questions about structures, ventilation, soil, water, waste, energy, machinery and safety.

Do water softeners hurt septic tanks?

I'm frequently asked whether water softeners have any adverse effects on the operation of household septic tank and absorption field systems. There are three main questions.

1. Is the softener's salt brine toxic to the septic tank's bacteria?
2. Does the liquid flow rate produced during the softener's regeneration cycle upset the septic tank digestion process and carry over solids into the absorption field?
3. Will the sodium in the brine cause some soils to swell and reduce the water percolation rate through the soil?

Studies by the University of Wisconsin (UW) and the National Sanitation Foundation (NSF) provide some good news. The answers are (1) no, (2) no, and (3) no.

UW and the NSF found that the increased sodium in the softened water was actually helpful to the bacterial organisms in the septic tank, and did not hurt the soil's ability to absorb water in a normal absorption field. The volume of softener backwash during regeneration was easily within the limits of what the septic tank could handle. An automatic washer would pose a greater threat to the septic tank than a water softener. The calcium-rich backwash acted similar to gypsum, which is a high-calcium mineral long used to increase the porosity of clay soils.

Keep in mind that an undersized septic tank and/or excessive use of drain cleaners or household antiseptic products are more likely to disrupt the normal operation of a septic tank and absorption field.