

Homeowner Survey Reveals Lawn Management Practices in Virginia

Watershed managers tend to make two assumptions about the link between lawn care and water quality. The first is that an army of envious suburban homeowners emerges each weekend to apply ever more massive doses of fertilizer and pesticides to create the perfect green sward. The second assumption is that this army would quickly surrender once they were informed about the water quality impacts of their excessive lawn care practices. So much the wiser, they would accurately calibrate lawn spreaders, test their soil prior to fertilization, practice integrated pest management, compost yard wastes, and recycle lawn clippings back on their yards.

As it turns out, recent surveys of suburban lawn care practices in Northern Virginia suggest that both assumptions are overly simplistic. Through an innovative residential water quality program, Marc Aveni and his colleagues at the Prince William Cooperative Extension have conducted detailed surveys of actual lawn care practices in Prince William County, Virginia. The county, situated to the southeast of Washington D.C., has experienced rapid suburban growth in the last 15 years. Aveni surveyed 100 homeowners on their lawn care practices, before and after they had enrolled in a demonstration residential lawn care program.

The pre-survey provides a revealing snapshot of current residential lawn care practices. For example, 79% of suburban lawns had been fertilized in the past year. Pesticides had also been applied to 66% of the lawns. Chemicals were typically applied by the homeowner, rather than lawn care companies (85% vs. 10% of all lawns). Some homeowners spent impressive sums of time and money on their yards: 35% spent in excess of \$100 on chemicals per year and labored on their lawns for more than four hours per week. A majority of homeowners (65%), however, spent less than \$100/year on lawn chemicals and worked three hours or less each week.

Less than 20% of residents tested their soil to determine whether their yard actually needed fertilization. Similarly, lawn owners were equally split as to the best season to apply fertilizer (spring and fall). Residents showed relatively little interest in non-chemical lawn care practices, such as turf aeration and dethatching: fewer than 30% of suburban lawns received such treatments. Nearly 50% of homeowners

watered their lawns on at least a weekly basis in the summer.

Homeowners consulted a wide range information sources to guide their lawn care efforts. Their number one information source was product labels on the shelf, followed by newspapers and magazines, the advice of the hardware store or nursery clerks, and the wisdom of their friends and neighbors. Their least common information source, to Aveni's dismay, were unbiased lawn experts such as the Cooperative Extension Service.

While developing an outreach program to improve residential lawn care practices, Aveni quickly noted two important facts.

- Most residents were at least somewhat aware and concerned about the links between lawn care and water quality. However, most did not have much time to learn about better lawn care practices.
- While homeowners are often willing to adopt lawn practices that improve water quality, they still want a sharp-looking lawn.

With support from the Extension Service, U.S. Department of Agriculture, a practical public education program was instituted in Prince William County that utilized the concept of neighborhood demonstration lawns. The concept works as follows. Interested individuals are recruited from Extension-sponsored field days where water-quality oriented lawn care practices are demonstrated. Each recruit is given short but intensive training on how to implement the recommended lawn care practices.

Over the course of the next year, an expert "Master Gardener" volunteer visits the homeowner to provide more one-on-one training and collect a soil test. After a year of practice and demonstrated understanding of the recommended practices, the homeowner's lawn may be designated as a demonstration lawn, with an attractive sign to pique neighborhood curiosity.

Post-surveys indicated that homeowners significantly changed both their attitudes and actual lawn practices as a result of participating in the demonstration lawn program. Sharp increases in soil testing, fall fertilization, pest identification, grass composting, and yard aeration were recorded, as well as sharp decreases in pesticide applications. Participants generally reported

that the time and money they spent caring for their lawns stayed the same or declined. Most importantly, most homeowners in the program commented that the appearance of their lawn improved as a result of the program.

Aveni stresses the importance of understanding the sociology of nonpoint source pollution when advocating watershed education practices. Credible out-

reach programs must be based on a detailed knowledge of what homeowners actually do and why they do it. Watershed education programs also must go beyond simple brochures to more intensive hands on training if they are to be effective.

—*TRS*