

Town of Concord Lawn Care Focus Group Findings May 2005

Study Objective

Aceti Associates was contracted by the Town of Concord, MA to conduct a focus group with Concord residents concerning lawn and garden care. The focus group was conducted on Thursday, May 12, 2005, and addressed the following issues:

- Tasks that residents and/or their contractors perform to care for their lawns and gardens;
- Knowledge of watering needs and methods of reducing those needs in lawn care;
- Factors that influence residents' water consumption for lawn and garden care;
- Ideas for motivating Concord residents to water their lawns less;
- Credible sources of lawn and garden care information;
- Social norms around lawn and garden care and
- Health concerns linked to pesticides.

The focus group was comprised of Concord residents who are in the top 10% of residential water users, based on an average of the last three years' water consumption. Of the eight participants, four were men and four were women. Two of the participants were between 35 and 44 years old; three were between 45 and 54 and three were between 55 and 69 years old. All had college degrees. One participant had an annual household income in the range of \$35,000 - \$50,000; one in the range of \$50,000 - \$100,000; two in the range of \$100,000 - \$200,000 and four had household incomes greater than \$200,000 per year. Residency was spread throughout the town. Two participants do all or virtually all of their lawn and garden care. The others hire one or more contractors to do the labor, but make day-to-day decisions about how their lawn and/or gardens are cared for.

Key Findings

- 75% of the focus group members have in-ground irrigation systems.
- All of the focus group members use fertilizers and pesticides on their property.
- Only 25% of focus group members do all of their own lawn care. The others most commonly hire someone to do fertilizer and pesticide applications and to mow the grass. Maintaining flower and vegetable gardens is the most common task performed by the participants themselves.
- At least half of the participants don't have accurate knowledge about how much water a lawn needs. Even if they do, they tend not to know how to determine if their lawn is getting that much or not. In deciding how much to water, most people rely on their perception of whether their lawn looks like it needs it. Many people also take into account their perception of how much rain there's been. Most focus group members with irrigation systems indicated that they exercise some manual control of their systems in response to lawn appearance and weather conditions, especially rainfall.
- During the course of the session, half of the participants spontaneously offered their opinion that the focus group members themselves are using water efficiently. Focus group members by and large view themselves, their neighbors and Concord residents as responsible and reasonable.
- Focus group members are largely unaware of the most effective way to reduce the amount of water necessary to maintain a healthy lawn, which is to improve overall soil health. 60% of focus group members appear to be aware that mowing high reduces water needs. Since about 60% of focus group members have a contractor mow their lawn, there may be other barriers to mowing high even if one is aware that it reduces water needs. Focus group members were largely unaware of other important techniques, like aerating frequently or making sure you're planting the right grass in the right place.
- Even when the cost of water influences people's lawn watering practices at all, it is secondary to people's desire to have a good looking lawn.
- There are indications that people are unaware of a problem with water use in Concord or don't see the threat as credible, if they have heard about it. The town's conservation water rates and regulations generate resentment among some.
- The most commonly expressed barrier to replacing lawn with drought resistant plants was the need to be convinced that the alternatives would be more attractive than lawn. Three of the eight participants said that nothing could convince them to convert part of their lawn to drought resistant plantings or hardscape.
- Participants get lawn and garden care information from multiple sources, most commonly including neighbors and friends. If participants had the opportunity to take advantage of other sources of information, they would most value the advice of an independent expert, such as a university extension agent.
- Most focus group members say that they experience internal or family expectations to keep an attractively maintained lawn. Their own or their family's expectations are more important to them than those of neighbors or friends. It is possible that people are reluctant to admit the extent to which they care about their neighbor's opinions, given that this factor has shown up in other research.

Participants indicated that in their neighborhood, an unacceptable looking property would be characterized by a general sense of unkemptness.

- Focus group members were aware of a range of health concerns linked to pesticides, with harm to pets being the most commonly mentioned.
- Participants offered a wide range of ideas for motivating Concord residents to water their lawns less, but most felt that education was at least part of the answer. Education combined with follow-up technical assistance was advocated by several participants. There was some agreement that a concrete, simple and compelling explanation of the threat would mobilize people. Incentives and positive role models were favored over regulations and punitive actions.

Detailed Focus Group Findings

A summary of the responses to each question is provided below, with observations by the facilitator and note taker where applicable.

Question: Do you have an in-ground irrigation system? If so, do you use it?

Six of the eight focus group members have in-ground irrigation systems. All six use their irrigation systems, although three of the six indicated that they program it conservatively, or use it sparingly or only as needed (i.e. they turn it on and off manually rather than relying on the electronic controls to do that.)

Question: For those of you who have an irrigation system, has it ever been adjusted, and if so, by whom?

All six irrigation system owners indicated that their system has been adjusted (“programmed” was the terminology used by participants) and five of the six program it themselves.

During the course of the focus group session, three people said they turn their system on or off. One of these does so for different zones of his lawn. One participant’s husband sometimes overrides the settings programmed by their landscaper. Other than these comments, we didn’t get detailed information on extent of people’s skill in programming their systems. One person acknowledged that she isn’t sure if the rain gauge on her system is functioning. If it is, she hasn’t been able to figure out how it works.

Question: What are all the tasks that you carry out to maintain the lawn and landscaping on your property? If you hire someone to do the work, what do you have them do?

In terms of what tasks are carried out, the most interesting responses for our purposes had to do with fertilizers and pesticides. All eight participants use fertilizers and pesticides (pesticides were often referred to as “treatments” or “pre-emergents”) on their property. Two people did mention that they use the least amount of pesticide possible, or use it very carefully.

In terms of who does what, two participants do all or virtually all of their own lawn and garden care. All of the remaining six focus group members hire someone who does fertilizer and pesticide applications. Five of these six also hire out the mowing. Three participants hire out the delivery and/or spreading of mulch. Maintaining flower and vegetable gardens was the most common task performed by the participants themselves. Much to the interest of the other group members, two participants mentioned deer repellants (apparently organic) that they use to protect their flowers and vegetables: hot pepper wax and garlic clips.

Question: How much water does your lawn need to be healthy?

Four participants said that one inch per week (including rain) is needed, although one of these expressed serious doubts as to the accuracy of this information, which she had gotten from her landscape designer. Her lawn is healthy, even though a test with a tuna fish can indicated that it gets nowhere near an inch per week. The remaining participants responded by describing their current watering regimens. Two participants water three times per week, with one of these specifying that he waters for 8 minutes each time. Two participants water twice per week, for 30 minutes each time.

Two participants mentioned that they use their irrigation systems (i.e. they water their lawns) only during July and August. A third said that the point during the season when he begins using his system depends on the weather and the condition of his grass.

Participants had a number of other comments on how much water a lawn needs and how to determine that. One person mentioned that he used to be told by professionals that he should water every other day, but had concluded that that was way too much. He went on to say that if he is unsure if his lawn has received enough water due to rainfall, he will use a shovel to determine how far the water has soaked in. If the top inch of soil is damp, he knows that his lawn has gotten enough water. Two participants stated that watering less frequently for longer intervals is better for getting water to the grass's roots. One of these participants specified that watering for 25 minutes once per week would be better than two 18 minute intervals. One focus group member says that by setting his mower to the highest blade height, he is able to avoid watering except in July and August.

The information we got from participants in response to this question could have been compromised by the fact that before everyone had written down their responses, one participant offered her opinion that lawns need one inch of rain per week. Although one inch per week was a common answer, only one person gave an indication that he checks to see if his lawn is getting that amount. One explanation here is that even if people have accurate information about water needs, they tend not to know how to translate that into action.

Question: What, if anything, can be done to a lawn so that it needs less water, but remains healthy?

Two participants didn't know what could be done in this regard. Five participants mentioned mowing high ("People who scalp it are going to lose the water right away, no matter how much they water.")

Two people had heard of or know someone who had planted drought tolerant grass that gets very yellow or brown during the winter. One person said that slow growing grass would be great, but that as far as he knows, it doesn't grow in our area because of the temperature extremes. Two participants suggested (or implied) that it would be helpful if the town could research drought resistant grass types and make the information available to residents.

One participant mentioned that he thought that aerating one's lawn frequently reduces water needs, although his lawn is aerated only once per year. Another participant commented that her neighbor, whose lawn looks really great, aerates her lawn weekly. It was suggested that the Town could provide an aerator for people to use, rather than everyone buying their own.

One participant described going to great trouble to find a contractor that could provide a 50/50 mixture of soil and compost to put down when sections of her lawn had to be replaced. Those sections are now "gorgeous." The water soaks right in, and the soil stays moist. She wishes she knew of a way to work compost into the soil under the rest of her lawn. Another participant described hearing something from the Concord Water Department about the benefits of applying "loam," but he couldn't understand how this would reduce the amount of water his lawn needed. (This was also the first time a participant mentioned that the Town used "scare tactics" regarding water shortages in the context of the permit requirement for installing an irrigation system.)

One person suggested getting a soil test and raising the ph if need be. This led another participant to recall that the town had had an extension service at one time where one could get soil ph tested. The extension service was great, according to this participant, for getting help with any questions or problems, such as identifying insect pests.

Other methods mentioned included using a mulching lawnmower, using less fertilizer, watering deeper, relaxing expectations about lawn appearance and utilizing different landscape designs that require less water, such as shady trees. Watering at night was suggested, but one participant said that a lawn can be damaged this way because it stays too damp too long and it's too cold. Someone else suggested watering in the early morning instead.

While this question elicited information about what people know, it did not tell us what they actually do. The exceptions are the participant who applied the soil/compost mixture under her new lawn and one participant who did say that he mows high. Considering that five of the eight participants contract out their mowing, they may not know what their contractor does in this regard.

Question: What determines how much you water your lawn?

Three participants responded, "whether it looks like it needs it and how much it rains." One person cited rainfall alone and one person cited color and "dry feel." One person waters when it looks like it needs it and when he has time. Another cited time availability alone. One participant said watering was determined by their irrigation system settings, although they are sometimes overridden by her husband when he feels their lawn compares negatively to their across-the-street neighbor's.

In almost all cases, these answers seem to jive with the answers people gave when they described their actual watering regimens and/or the extent to which they manually control

their irrigation systems. Six people depend in part on how their lawn looks or feels to determine when to water. It is likely that this is really the guide that many people use, instead of the one inch per week rule.

Question: Does the cost of water influence your watering practices? Why or why not?

None of the participants responded with an unequivocal “yes” to this question. Four participants said that cost is a factor, but not so much so that they will risk losing their lawn. Other influences described by these four participants included a consciousness that water is a resource that needs to be managed carefully and a perception that their water use is cautious and reasonable. Four participants responded with an unequivocal “no” to this question. They said that keeping their lawn looking good is more important, and that water does not cost that much. It is worth noting that in answering this question, every single participant either referred to their lawn as an asset or referred to the importance of having a good-looking lawn.

This question also elicited comments about the Town’s water rates and regulatory practices. Two participants who responded with an unequivocal “no” to this question said that they object to the Town’s practice of charging higher rates at higher consumption levels. One of these individuals particularly objects to a rate that is many times more for water consumption over a “base” level of water usage. He felt it was an unfair practice on the Town’s part. One participant implied that the water rates are set to benefit town government and that complaining to the town won’t help, so inertia drives his water use more than anything.

One participant who responded to this question more equivocally, objected to the town’s restriction on which days residents can water their lawn, and questioned the credibility of the threat. “I don’t like getting letters and articles in the paper saying there’s a drought when the rivers are high and it’s been snowing and raining all winter and spring and that you can only water every other day,” she said. “I’d rather water twice per week on my schedule rather than on the town’s odd or even day schedule. I think I’m responsible and I don’t want someone putting regulations on me.” Two participants mentioned that they echoed her sentiments.

Even when cost is a factor for these focus group members, it is secondary to maintaining their lawns. For half of the participants, cost is not even a factor. For half of the individuals in the group, the town’s water rates and regulations generate resentment, or at best, a sense of resignation to a system that is perceived as unresponsive.

Question: What do you think would be most likely to motivate Concord residents to water their lawns less?

Seven participants felt that education was at least part of the answer to this question. One participant felt that nothing would change people's lawn watering behavior. "A lawn is an asset," he said. "It's like saying, 'don't paint your house.'"

An interesting feature of the responses to this question were the following characterizations: Four people characterized the focus group members as conscientious. ("If everybody in town did what we do here..... I don't think we could do much more.") Two participants characterized their neighbors as reasonable and conscientious in their watering habits. Two participants characterized Concord residents as reasonable, well educated and responsible, saying that they'll do what they have to in order to help. (There was some overlap, with some participants providing positive descriptions of more than one of these groups.) Three participants explicitly acknowledged the possibility of wasteful water usage. One participant attributed excesses to the very high net worth people in town. Another simply said that she knows there is a lot of waste. A third said that the places he sees watering more than anyone else are the commercial properties in town. He cited one business that waters every night, making it hard to walk down the sidewalk without getting wet. He also declared that if you go around early in the morning in Concord, the sprinklers are on at all the commercial properties, especially the office parks. He speculated that watering is done by landscaping companies on these types of properties, not by the business itself.

What to make of the phenomenon that these are all high water users, but that they perceive themselves as particularly conscientious? The perception seems to rest upon the fact that they are doing the best they know how. They perceive themselves as using as much water as they need to maintain their lawn, but no more. For the most part, they don't see bad intentions or a tendency towards negligence in themselves, their neighbors, or most Concord residents.

One participant suggested identifying those people who are not aware and conscientious about their water use and educating them. Another participant suggested publicizing positive examples rather than negative ones. He suggested giving an annual award to a resident who makes the best use of their water. A well publicized description of the resident's practices would help others to copy what the award winner did. This suggestion was affirmed by another participant, who felt it was much more likely to be effective than punitive actions, which turn people off.

The participant who questioned the need for water conservation in response to the last question reiterated her doubts again. "I'm not sure there is a problem. I don't know what the problem is." A second participant said he had been told of a "severe" shortage when he got a permit to install a sprinkler system. He had clearly not found the threat credible, and dismissed it as purely speculative on the part of the town. He wanted to know what the real data was, and urged the town to communicate based on fact vs. guesses, perceptions and "what somebody else had said."

In the course of the focus group session, three people explicitly expressed their doubts about the water shortage as described by the town. A fourth participant volunteered that he had no idea there was a water problem in town until the focus group session. A fifth participant chimed in later to say that a clear explanation of the danger would mobilize people. We did not hear the perceptions of the other three members regarding a possible water shortage, since they did not volunteer their opinions.

Other suggestions for promoting reduced water consumption were as follows:

- Send people something similar to the one page explanation of Prop. 2 ½. “That was such an eye opener for me, and so easily understood.” The one-pager should list what people can do to control water consumption and let people know that it can save them some money along the way.
- Clarify whether or not the most water wasted is used on lawns. One participant was doubtful that people would take admonitions regarding lawn watering seriously if they aren’t convinced that lawn use is the biggest waster. Have more general conversations about various sources of water waste with people.
- Provide people with water audits.
- Send out toilet leak kits upon request.
- Educate people and provide them with follow up technical assistance so that they know what to do with soil test results, for example.
- Provide people with tax incentives for doing things that reduce water consumption. This would be welcome in a very entrepreneurial Concord.
- More frequent water bills would help people connect a high bill with a particular wasteful episode.
- One or two participants read the tips that the Water Dept. sends out with water bills.
- Do a better job of publicizing lawn care seminars. The small notices in the Concord Journal may not be catching people’s attention. (One participant mentioned these seminars. She wasn’t sure exactly who sponsors them.)
- Have an extension service.
- If the town can’t afford to hire an extension agent, identify volunteer experts in Concord.
- Put a real time water meter on 3 or 4 houses in Concord and let everyone see it on a regular basis. This would give people a sense of how much water is actually used on a household level.
- Put information next to the weather in the Concord Journal about the overall usage in Concord each month and how that translates into a per household average.
- Lower taxes or improve perceptions about how efficiently tax dollars are used by town government. One participant said she would use less water if her taxes weren’t so high.

Question: What would sell you on the idea of replacing some of your lawn with something that doesn't need to be watered as often or perhaps not at all?

Three people said that nothing would sell them on this idea. They said that they already have enough plantings and hardscape, or that they don't have that much lawn to begin with, or that lawn is easiest to maintain, because other plant material or shrub beds require more weeding and pruning. Three participants said that they would have to be convinced that the alternatives are more attractive than lawn. Two participants said that financial assistance would help sell them. One participant would need to be convinced that there's a real need. One participant mentioned that you can't play soccer or football on ornamental grasses. Wanting a lot of play space in the backyard for his kids would be a barrier to reducing his lawn.

One participant opined that asking people to reduce their lawn flies in the face of "American" lifestyle preferences. ("We like what we have.") He suggested that the Water Department might be throwing snowballs into a hot furnace by focusing on short term efforts to get people to reduce their lawns or their water consumption. Another participant took a stab at what might be a compelling longer-term argument for Concord residents. "I think I read in the Journal that in the next ten years the town will grow by 500 houses. If we have a certain supply of water that keeps the town going in a closed loop system, not too much, not too little...aren't we saying just by the fact that we're going to add 500 houses that we're going to put more stress on a limited resource anyways, and therefore it seems like we're all going to be paying for it one way or another, if we want to build those houses?" The first participant said, "So when do we say to ourselves that there has to be a change in behavior? When the facts are presented really clearly in a way that the communal need can overreach our individual wishes, we'll all pull for that. Maybe what the planners at the Water Dept. should be thinking about is when does it reach crisis? Everybody should agree what crisis is. Spend some time getting us together around the concepts that if it takes this many years to reach crisis, we have to start planning now to get that done."

Question: Where do you get information on how to care for your lawn and gardens?

Everyone had multiple sources. "Neighbors" was mentioned by six respondents. "Friends" was mentioned by five participants. Four participants mentioned their lawn care or landscaping contractor. Books and magazines were mentioned by three people. Two people mentioned garden center staff. One person mentioned the internet and one person mentioned product labels. One person mentioned he had used university extension services in the past.

It is unclear to what extent advice that people get from their friends and neighbors influences what they direct their contractor to do. To what extent are they willing to tell their contractor how to do his job?

Question: If you had time to take advantage of other information on lawn and garden care, what sources, if any, would you consider better than the ones you're using.

The consensus was that people would most value advice from an independent expert who was not in the landscaping business -- such as a cooperative extension agent. Garden Clubs were also mentioned. Someone with knowledge of local horticulture was deemed valuable, as well as someone who had already been through all the mistakes -- someone experienced and older.

Question: Do friends, family or neighbors expect you to have an attractively maintained property? Whose opinion do you care about most when it comes to your lawn?

Seven participants answered yes to this question, saying that they cared most about their family or their own opinion. Two of these individuals said that neighbor's opinions were second in importance to them. One individual cared most about neighbors' opinions. One participant indicated that he felt no expectations from anyone other than himself. It is possible that people are reluctant to admit to themselves or to us the extent to which they care about their neighbor's opinions, given that this factor has shown up in other research.

Question: In your neighborhood, what would constitute an unacceptable looking property?

It appeared that most participants felt that a general sense of unkemptness would constitute an unacceptable looking property. This would include an unmowed lawn, but also dead or dying trees, debris, trash and overgrown plantings, such as unpruned shrubs. Four people did include dandelions in their description of an unacceptable looking property, but it wasn't the sole determinant.

Question: What, if any, health concerns have you heard being linked to pesticides?

Harm to pets was mentioned six times, cancer was mentioned five times, reproductive problems four times, harm to kids four times, respiratory problems three times, and burns and rashes once. Contaminated runoff was mentioned twice. One person mentioned fish kills and harm to other wildlife.