

Southwest Florida Water Management District



Focus Groups for Northern Counties
Springs Study
March 7, 2012|Final Report

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Table of Contents

I. Objectives & Methodology	1
II. Conclusions & Strategy Recommendations.....	2
III. Detailed Findings - Homeowners	5
IV. Detailed Findings – Owners of Landscaping Businesses	9
V. Detailed Findings – Employees of Landscaping Businesses.....	12
VI. Lessons Learned in this Study	15
Appendix 1: List of Landscape Companies.....	16
Landscape companies used by residents.....	16
Landscape companies represented by owners/managers and employees.....	16
Appendix 2: Focus Group Scripts and Exercises.....	17
Homeowner Exercises.....	29
Owner/Manager Exercises.....	36
Landscape worker Exercises	43

I. Objectives & Methodology

OBJECTIVE.

The objectives of this study were to:

1. Encourage residents and landscape professionals to engage in discussions about proper fertilizer use to help improve water quality in springs.
2. Encourage landscape professionals to complete the Green Industries-Best Management Practices (GI-BMPs) for fertilizer application training and implement what they learned.

METHODOLOGY.

Ten (10) focus groups were conducted with homeowners who hired landscaping services to fertilize their lawns. Focus groups were conducted with the following types of homeowners:

- Lived near water and belonged to a homeowners association
- Lived near water and did not belong to a homeowners association
- Did not live near water and belonged to a homeowners association
- Did not live near water and did not belong to a homeowners association

Groups were conducted in Hernando (4 groups), Citrus (4 groups), and Marion (2 groups) counties. All groups were moderated by Phillip E. Downs, Ph.D., Senior Partner of Kerr & Downs Research.

Three (3) focus groups were conducted with owners of landscaping businesses that applied fertilizer to lawns. Groups were conducted in Hernando (12.1.11), Citrus (11.16.11) and Marion (11.7.11) counties. All groups were moderated by Phillip E. Downs, Ph.D., Senior Partner of Kerr & Downs Research.

Three (3) focus groups were conducted with employees of landscaping businesses that applied fertilizer to lawns. Groups were conducted in Hernando (1.5.12), Citrus (11.17.11) and Marion (11.8.11) counties. All groups were moderated by Phillip E. Downs, Ph.D., Senior Partner of Kerr & Downs Research.

II. Conclusions & Strategic Recommendations

The underlying premise of this study was that increased and enhanced communication between homeowners and their landscape services that fertilized their lawns would be beneficial to the health of the springs and other water bodies in the area. While there is some promise for this premise to be realized, in the larger picture, only marginal improvements to the health of the springs and water bodies can be expected based on increased and enhanced communication between homeowners and their landscape services. Obstacles to realizing the benefits of the underlying premise of this study are:

- Landscape company owners and managers already believe they are utilizing proper fertilizing techniques
- Landscape company owners and managers do not believe that the springs and other water bodies will benefit from increased communication between themselves and homeowners. They do, however, believe that lawns can benefit from increased communication.
- Landscape company owners who participated in this study work for smaller firms. National firms were not represented in the study – frequent calls to local and national offices of national firms were unsuccessful in recruiting owners & managers from national firms to participate in the study. Owners and managers of smaller firms believed that large firms were less likely to follow proper fertilizing techniques, not because they did not know the techniques, but because they were driven by numbers. That is, they had a certain number of lawns to service everyday to make money, and often shortcuts were taken to ensure that the numbers “worked.”
- Homeowners do not necessarily see the relationship between increased and enhanced communication with their lawn services and the health of the springs and other water bodies.

The **number one strategy recommendation** from this study is:

- Create a checklist for homeowners that shows proper fertilizing techniques
- Distribute these checklists through homeowners associations and through retailers that carry fertilizer such as Lowes, Home Depot, etc.
- Conduct a social media (and to the extent that money is available, a traditional media) campaign that simply asks: “Is your lawn service protecting or destroying the springs and rivers when it fertilizes your lawn? Find out – Get the “List” and talk to your lawn service.”

HOMEOWNERS – CONCLUSIONS & RECOMMENDATIONS

People who do not live near a water body are less likely to understand and believe that their fertilizing activity can harm the springs and other water bodies in the area. The ***District can educate these households about how fertilizer does enter water bodies even though lawns are located far from water bodies.***

Many people are not too concerned about the springs in the area – they do not use the springs on a regular basis and they do not think about the springs on a regular basis. ***The District can educate citizens about the importance of the springs as a water source and as a quality of life determinant for***

all people living in the area. The District can educate citizens about the relationship between the economic health of the community and the health of the springs and other water bodies.

Fertilizer is perceived as a pollutant to the springs and other water bodies, but outside of the focus group environment, it is doubtful, based on the results of this study, that people think first about fertilizer when thinking about water body pollutants. ***The District can quantify damage done by fertilizers and educate people about the extent of damage caused by lawn fertilizers.***

Homeowners who hire landscape companies to fertilize their lawns are generally not very knowledgeable about proper landscaping techniques. They are amenable to having materials that outline proper techniques. ***The Districts can prepare materials that outline proper fertilizing techniques and encourage homeowners to review these techniques with their lawn services to ensure that these techniques are being followed.***

Homeowners hire landscape companies to make their lawns green. They want a good price and they want their service to listen to them when they have something to say about their lawn. They do not feel qualified to question their lawn services on fertilizing techniques. ***The District can prepare a checklist for hiring lawn services. This checklist can include proper fertilizing techniques.***

Homeowners are often disappointed in the “summary” that lawn services leave on their doors after service. These descriptions of what was performed are often illegible. ***The District can prepare a checklist for what was performed on each visit and distribute these to lawn services and homeowners.*** Homeowners can be encouraged to make their lawn services fill out these checklists after each visit.

Homeowners trust small, local firms more so than they trust large, national firms. The churn rate for large, national firms appears to be greater than the churn rate for small, local firms. ***The District can approach large, national firms with the proper fertilizing technique checklists from the perspective of reducing their churn rate.*** Large national firms are focused first and foremost on making profits. The District can explain that, based on its research, homeowners want their lawn services to leave checklists that explain what fertilizing techniques were followed each visit. ***The District can explain that discussing these checklists with homeowners will lead to lower churn rates that will then lead to higher profits.***

Homeowners have no idea regarding the qualifications of landscape companies and their employees. The District can promote the GI-BMP designation to homeowners and to homeowner associations. ***The District can instruct homeowners to ask prospective lawn services if they follow the fertilizing techniques listed in the GI-BMP checklist.***

Homeowners prefer to receive information via brochures, at homeowners association meetings, and in “normal” environments such as retail settings (e.g., Lowes, Home Depot). ***The District can use homeowners associations and retailers as part of its distribution system for disseminating information about proper fertilizing techniques.***

Homeowners trust the University of Florida, and to a lesser extent, the District regarding fertilizing techniques and preservation of water bodies. ***The District can more aggressively team with the University of Florida to disseminate information about proper fertilizing techniques.***

OWNERS & EMPLOYEES OF LANDSCAPE BUSINESSES— CONCLUSIONS & RECOMMENDATIONS

Owners and workers for lawn services indicated that all proper fertilizing techniques on the focus group list (and on the GI-BMP list) would not be followed every visit. For example, the soil should not be tested on each visit. ***The District can prepare proper fertilizing technique lists for the first visit and another list for subsequent visits.*** These lists will be more believable and realistic to landscape company owners and workers if they quantify damage to the springs attributable to fertilizer.

Owners realize that fertilizer contributes to pollution of springs and other water bodies, yet, they are not convinced that fertilizer, especially from lawns they service, is a major factor. They want proof. ***The District can work with the University of Florida to quantify the amount of damage that fertilizer from lawns does to the springs and to other water bodies.*** Only then will owners of lawn services believe the amount of damage done to the springs by fertilizing homeowners' lawns.

Owners value GI-BMP certification for their employees, especially to the extent that certification gives them a competitive advantage. ***The District can work with the University of Florida to publicize the GI-BMP certification and the value to the environment of having GI-BMP certified companies and employees servicing your lawn.***

Workers value GI-BMP certification. It gives them a sense of accomplishment. ***The District can work with the University of Florida to publicize the GI-BMP certification and the special knowledge that workers gain when they earn the certification.***

The District can work with the University of Florida to share the expense of creating a patch that signifies that one has earned the GI-BMP certification for fertilization.

III. Detailed Findings - Homeowners

PERCEPTIONS OF THE SPRINGS

The springs in Citrus, Hernando and Marion counties were a low salience phenomenon, i.e., people did not typically think about the springs day-to-day. Most people did think of the springs as recreational facilities, but most had not visited any springs in years. Give the median age of the participants, most residents, if they visited the springs at all, took their grandchildren.

CONCERN ABOUT THE HEALTH OF THE SPRINGS

Most people expressed concern about the health of the springs when asked to complete an exercise during the focus groups. In fact, the average scores on a 10-point scale were 8.0 for people who belonged to homeowners associations and 8.6 for people who did not. However, the discussion leading up to completing the scale suggested that people were not that concerned day-to-day about the health of the springs since they typically did not think about the springs. Yet, when confronted with the question about the health of the springs, most participants expressed concern about the impact on wildlife and concern about preserving the springs for future generations.

POLLUTANTS

Participants were more likely than not to identify fertilizer as a pollutant of the springs, yet many participants also named agriculture, industry and chemicals (pesticides). People who belonged to homeowners associations and those who did not both thought that fertilizer was responsible for about half of the pollutants that threatened the health of the springs. The level of knowledge about the relationship between fertilizing and degradation of the springs varied widely across residents. Some homeowners understood how fertilizer could run off into water bodies and end up in the springs, but considerably fewer residents also understood how fertilizer could leach through the soil and navigate into the aquifer. Many participants had absolutely no idea about how fertilizer might end up in springs.

PROPER FERTILIZING TECHNIQUES

Most participants lacked a wealth of knowledge about proper fertilizing techniques. Several participants, when asked to complete the exercise, proclaimed that they hire lawn services because they did not know proper fertilizing techniques. Nonetheless, many participants were able to suggest reading package instructions as a proper fertilizing technique, and some participants mentioned slow release or organic fertilizer. And, some participants mentioned that less is more when it comes to using fertilizer.

A majority of residents were unaware of the recommended 10-foot buffer around water bodies when fertilizing. Most thought there should be some buffer, but guesses ranged up to 500 feet. People who lived near water were more knowledgeable about keeping a buffer around water bodies. Homeowners who belonged to homeowners associations felt more pressure to keep their lawns in great shape and that often influenced their attitudes and behaviors about fertilizing.

TRUST IN LAWN SERVICES

Focus group participants were more likely to trust locally owned lawn services more so than national firms to “do the right thing.” The primary motivation for this attitude was grounded in the belief that local workers cared more about the community (as if workers for national firms did not live in the community). Many of the participants had hired local and national firms in the past, and many participants seemed to be on a serial lawn service hiring/firing sequence.

HIRING LAWN SERVICES

None of the participants in the focus groups had an idea what type of qualifications their lawn service employees possessed. Many homeowners presumed that their landscape companies were licensed and some believed that owners of landscape companies had to have some type of license to apply fertilizer. Nearly all participants were not aware of the Green Industries Best Management Practices for fertilizing or the certificate that employees can earn.

Most common methods of hiring lawn services were based on word of mouth, appearance of others’ lawns and sales techniques employed by lawn services, e.g., telephone calls or personal visits. A majority of participants did not have written contracts, but rather had a verbal understanding of the terms of engagement and what the lawn service would provide. For local lawn service providers, many participants trusted the person to make good fertilizing decisions and they tended to keep local companies until the lawn began deteriorating. Participants were more guarded about entering into relationships with national firms, often indicating that national firms were on “probation” until they proved they could care properly for their lawns.

AWARENESS OF LAWN SERVICES’ FERTILIZING TECHNIQUES

On average, about half of the participants were not aware of specific fertilizing techniques utilized by their lawn services. Participants were more concerned that their lawns looked healthy and green rather than what specific techniques were used to produce that result. The general feeling was that homeowners paid lawn services to know what they were doing so homeowners did not have to know or did not care to know. There were obvious exceptions, as some homeowners were very informed about techniques their lawn services were using.

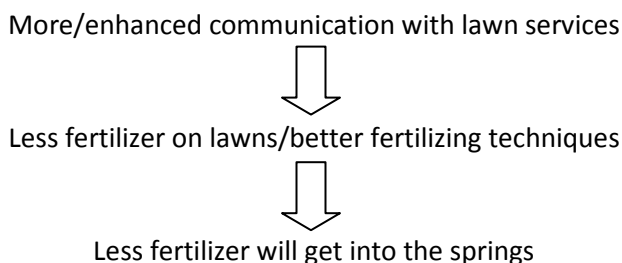
COMMUNICATION WITH LAWN SERVICES

The most in-depth communication with one’s lawn service occurred during the initial visit. After that, level of communication varied significantly with people who did not belong to homeowners associations communicating slightly more with their lawn services. Many participants who lived in homeowners associations simply communicated with their lawn services by reading the notes (sometimes illegible) left by lawn service employees on door handles. Homeowners who hired local lawn services tended to communicate more with their lawn services employees.

The level of communication and interaction between homeowners and lawn services varied significantly across homeowners. Some residents rarely interacted with their landscaping services after the first consultation, while other residents followed their lawn service workers around the lawn and actively discussed issues with them. Homeowners were much more likely to discuss problems about their lawns with landscape company workers rather than talk about proper fertilizing techniques.

COMMUNICATING WITH LAWN SERVICES – IMPACT ON SPRINGS

Most participants agreed that communicating more with their lawn services could result in improved appearances of their lawns. Yet, it was more difficult for homeowners to believe or understand that more or enhanced communication with their lawn services would result in less degradation of the springs in the area. A few residents were able to make the following connection:



It was not clear the extent to which the moderator may have influenced participants who did eventually accept this connection. After moderating 1,000 focus groups, the moderator in this study suspects that few residents in these focus groups had clear or compelling feelings about the relationship between communication with lawn services about fertilizing and condition of the springs in the area.

QUALIFICATIONS OF LANDSCAPE COMPANIES

Most residents had no idea about the qualifications of their landscaping firms. There was a sense that their firms were licensed, yet most residents were uncertain if the individual employees had any qualifications.

Most residents hired their landscaping services based on word of mouth or selling techniques of the firms (stopping by, calling, advertising, etc.). Price was a critical issue when hiring landscaping companies, as was previous performance on friends'/neighbors' lawns.

GREEN INDUSTRIES BEST MANAGEMENT PRACTICES

Awareness. Almost none of the residents were aware of the Green Industries Best Management Practices Certificate although by the time in the discussion that this issue was raised, residents had already seen an exercise that listed many techniques covered in the GI-BMP training. Since almost no one had heard of GI-BMP for fertilizing, it followed that none knew whether or not the people who fertilized their lawns had earned a GI-BMP Certificate.

Presenting a GI-BMP Checklist to Lawn Services. Most homeowners thought it would be a good idea to present a Green Industries Best Management Practices checklist to their lawn services, and they believed that such a checklist would be helpful in interviewing and choosing new lawn services.

Value of a GI-BMP. Most residents believed that it would be a competitive advantage for lawn services if their employees had earned a GI-BMP. Yet, some residents were skeptical about a “certificate” suggesting that anyone could forge a certificate. Nearly all residents trusted the University of Florida, Southwest Florida Water Management District, or the County Extension Service to train and test landscape workers in proper fertilizing techniques. Most residents indicated that they would pay a slight premium to hire firms that employed GI-BMP certified workers to perform fertilizing.

COMMUNICATING TO RESIDENTS

Homeowners preferred to receive information about proper fertilizing techniques through brochures. Residents trusted the University of Florida, Southwest Florida Water Management District and their County Extension Offices as sources of information about proper fertilizing techniques.

Emails from reputable sources such as the University of Florida or Southwest Florida Water Management District and tip sheets from their lawn service were other preferred methods of receiving communication about proper fertilizing techniques.

REACTIONS TO SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

There was a level of trust in Southwest Florida Water Management District, but certainly not complete trust. Some residents were concerned about the perceived political pressure the District receives from legislators, the perception that top decision makers are appointed by politicians, the size and bureaucracy of the District and a sense that the District was not able to focus on individual homeowners' situations in making decisions. There was also concern that the District might succumb to political pressure and "sell" water in their area to locations outside their area.

Nonetheless, when discussing who residents trusted to train and test landscape employees or who they trusted to send information about proper fertilizing techniques, the District was a trusted source.

IV. Detailed Findings – Owners of Landscaping Businesses

CONDITION OF SPRINGS

Owners varied in their perceptions of the health of the springs, yet most believed that the springs had suffered some degradation. Owners blamed fertilizing for the deterioration of the springs, but they also blamed industry, sewerage, development, and lower flow. Owners blamed homeowners and how they fertilized their lawns much more so than they blamed their industry. For example, one owner stated that 99% of the fertilizer sold in Florida was sold at Lowes, Home Depot, etc., to homeowners, and only 1% of fertilizer was sold to landscaping companies. Within their industry, they blamed large, national firms rather than smaller, more local or regional firms. Nonetheless, owners believed that most firms, national and local, were not the problem in terms of deterioration of the springs.

Owners maintained that large, national companies lacked proper training for their employees, and their employees had to meet quotas. Pressure on employees to fertilize high numbers of lawns daily contributed to lack of tailoring fertilizer application to lawn specifications.

PROPER FERTILIZING TECHNIQUES

All owners were familiar with proper fertilizing techniques, and claimed they practiced best management practices with regard to fertilizing. They thought the Best Management Techniques summarized on the exercise handed out during the focus groups were good guidelines, but were not flexible enough to handle all situations. For example, they all believed that ten feet was the minimum buffer between fertilized areas and water bodies. They recommended longer distances depending on the grade of the land, whether or not the wind was blowing, etc. Owners of small, local/regional firms believed that their employees followed GI-BMP guidelines; in fact, in many cases owners were the employees who fertilized lawns.

Owners of small, local/regional firms insisted that their employees tailored fertilizer application to individual yard specifications. Owners, while following most GI-BMPs, were not as insistent that soil at all customers' houses be tested. Owners varied in how many times they recommended fertilizing lawns from two to four times annually, yet they did not always fertilize in the same manner. For example, they might use liquid fertilizer one time and granular the next, or change the composition of the fertilizer depending on time of year and what lawns needed at different points of time.

GI-BMP CERTIFICATION & EDUCATION

All owners believed earning a GI-BMP certification is a valuable asset to have. Owners perceived the certification as a marketing tool. Yet, owners did not necessarily pay employees who had earned the GI-BMP certification more money.

Owners of small, local firms support their workers earning GI-BMP certification. They did note that doing so costs them time and money, yet they believe it is worth it. Most owners also supported sending their employees to GI-BMP refresher courses.

Most owners were actively involved in training their own employees. In addition to GI-BMP courses, owners supported CDs as a learning medium.

Most owners believe that they and their employees receive substantial training and education and that they are “regulated to death.” They do not believe they are part of the problem, but they do feel they can be part of the solution. That is, if everyone (do-it-yourself homeowners and large, national landscaping firms) fertilized as they (small, local firms) do, then fertilizer would be a minor part of the problems for springs.

IMPROVE WATER QUALITY/SPRINGS

Owners believe that following proper fertilization methods will help restore the springs, and they believe in better/enhanced education with customers. However, they do not perceive a link between these two concepts, i.e., better communication with their customers will not necessarily enhance the health of the springs. Yet, they do believe that educating homeowners who do their own fertilizing will enhance the equality of the springs.

COMMUNICATION WITH CUSTOMERS

Owners welcomed more communication with their customers, yet they did not see a strong link between communication with customers and health of the springs. Owners already believed they were applying fertilizer correctly and that communicating with customers would not change that fact. Owners did believe that educating homeowners who were not using landscaping companies to fertilize their lawn would help impact the springs in a positive fashion.

When considering their lawns, owners believed that customers’ only concerns were results and price. Owners thought it was supercilious for homeowners to instruct owners on fertilizing techniques. Owners claimed since they already fertilized properly, that additional communication with homeowners was redundant at best. Further, owners indicated that they would not use improper fertilizing techniques even if residents asked them to do so.

Many of the owners would be willing to attend homeowners association meetings to educate homeowners on proper fertilizing techniques, especially if these meetings were held at off-work times.

Owners did mention that they were much more likely to be hired by men rather than by women, hence, it would appear that education materials about proper fertilizing techniques should be targeted to men.

GI-BMP CHECKLIST

Owners were not supportive of customers having GI-BMP checklists and asking landscaping workers if they had followed the techniques on the checklist. They perceived themselves to be professional who did not need nor want customers telling them or showing them how to fertilize their lawns.

CONTRACTS

Most small/local firms operated without written contracts.

HOAs

Owners of landscaping businesses that apply fertilizer recognize that homeowner associations put some pressure on homeowners to have pleasing looking lawns, yet most owners did not feel that pressure

translated to them. Owners knew what needed to be done to a lawn and how to do it. Owners of landscaping companies did feel some pressure from homeowners who expected miracles.

MESSAGING

Owners believed that workshops were the best method for educating homeowners and workers alike followed by brochures.

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

Owners had mixed feeling about the District, yet they did believe that the District could help achieve its objectives, educate homeowners, and encourage landscaping companies and workers to get GI-BMP certified by promoting GI-BMP certification.

V. Detailed Findings – Employees of Landscaping Businesses

CONDITION OF SPRINGS

Workers were no more likely to have recently visited the springs than were homeowners despite the fact that workers were considerably younger than homeowners were. Most workers agreed that the springs were deteriorating, but there were significant differences in the degree of degradation that workers perceived. For example, some workers thought the spring were in relatively great shape, while other workers believed that the springs have already suffered significant damage. Yet, some workers thought that scientific testing should be done and publicized before drawing definite conclusions about the health of the springs.

IMPACT OF FERTILIZATION AND THE SPRINGS

Nearly all workers agreed that fertilizer was not the only, or even perhaps the greatest, culprit in the deterioration of the springs. Other factors resulting in degradation of the springs included industry, septic tanks, agriculture, development and decline in the water table level. Workers believed that damage caused by fertilizer was shared by homeowners (do-it-yourselfers) and landscape companies that applied fertilizer to lawns.

While still identifying homeowners who applied their own fertilizer as the main culprits, workers were slightly more likely than owners to assign blame to landscaping businesses. Workers varied in their estimates, but claimed that 5% to 50% (most in the lower range) of damage to springs is attributable to fertilizer run off. Workers and owners of landscaping businesses that apply fertilizer cited lawns and regulations that have significantly and positively impacted the environment. Workers stated that they have to follow all rules and laws, while homeowners do not.

FERTILIZING TECHNIQUES

All of the workers (who were all GI-BMP certified) indicated they knew all of the proper fertilizing techniques and that they practiced all of the proper fertilizing techniques. They did not necessarily totally agree with the list of exercises handed out during the focus groups that summarized many of the GI-BMP fertilizing techniques. For example, workers do not test the soil on all lawns, nor do they always calibrate their fertilizer equipment. They also believed that UF/IFAS recommendations for scheduling fertilizer applications are not tailored enough for the various lawns they encounter.

Workers, all of whom worked for small, local firms, insisted that they tailored fertilizer applications to each lawn's needs, but they also maintained that lawns in the same neighborhood probably could receive very similar applications.

Nearly all workers agreed that large companies operated differently than small companies, i.e., workers from small companies were more likely to know and follow GI-BMPs for fertilizing and more likely to tailor fertilizer applications to lawn specifications. They claimed, as did their bosses, that large, national companies were motivated primarily by money and required their workers to service a large number of lawns per day. Quota pressures in large firms prevented their workers from strictly following GI-BMPs or from tailoring applications to lawn specifications. Workers stated that some large, national firms

such as TruGreen had excellent training programs, yet the pressure their employees faced at the local level to meet quotas was not always consistent with the excellent training directed by corporate.

GI-BMP CERTIFICATION

Workers, all of whom had earned the GI-BMP Certification, felt there was value in the certification. They considered themselves to be professionals and they also were aware of laws that regulate application of fertilizer. The combination of knowledge learned through training and GI-BMP certification, pride in their professionalism, and legal constraints conspired to ensure that workers at small, local firms were diligent about how they applied fertilizer. They believed they learned valuable information during the GI-BMP training.

Yet, most of these same workers believed that not all workers who applied fertilizer, especially those who work for large, national firms, were as diligent. Workers maintained that the GI-BMP Certification was a marketing tool (yet most had not assertively used it as such), but they wanted more recognition for achieving the certification. All of the workers carried their GI-BMP certification cards with them, but they did not show them to customers. They felt that most homeowners were not aware of GI-BMP certification, and if aware, might not give much credence or weight to it. There was some support for having a GI-BMP patch that could be worn on uniforms. Workers also indicated that achieving the certification did not affect their pay or status professionally.

IMPROVE WATER QUALITY/SPRINGS

Workers agreed that if all people (workers and homeowners) followed proper fertilizing techniques, the health of the springs would improve and continue to be protected over time.

COMMUNICATION WITH CUSTOMERS

Workers welcomed more communication with their customers. Yet they indicated that a majority of customers are either not home during fertilizer application or do not encourage interaction with landscape company employees when they are servicing lawns.

Workers believed that homeowners needed to be better educated about what constitutes a healthy lawn (not necessarily green all of the time). Workers felt that homeowners only cared about results (how their lawns look) and price.

Some workers would be offended if customers tried to tell them how to do their jobs and presented a card from UF/IFAS about proper fertilization techniques. Yet other workers had positive reactions to the idea that homeowners would hand them checklists containing GI-BMPs.

Workers were not convinced that better or more communication between them and homeowners would have any salutary effect on the springs. While workers in one group said they believed the springs would benefit from enhanced communication between homeowners and workers, they were actually talking about enhanced communication with homeowners might reduce the number of follow-up trips they had to make to deal with lawn problems.

Workers did believe that educating homeowners who fertilize their own lawns would have a significant and positive impact on the health of the springs.

Some workers did see benefit in having a GI-BMP checklist that they could hand to customers to show what they had done during fertilizer application. In fact, there was some support for two different checklists: one for the first visit when certain tasks would be completed such as measuring the lawn, and one for all subsequent visits when routine tasks were performed. Workers also believed that retailers such as Lowes, Home Depot should distribute GI-BMP checklists to customers who buy fertilizer.

IMPACT OF HOMEOWNERS ASSOCIATIONS

Most workers perceive homeowners associations as minor problems in that they require homeowners to keep their lawns attractive, and thus, make homeowners feel as if they need to use more fertilizer than is necessary. Workers believe that homeowners associations should be more assertive in educating homeowners about proper fertilizing techniques. Workers also indicated that a majority of their customers live in neighborhoods that have homeowners associations.

MESSAGING

Workers named workshops as the best method for educating homeowners and workers followed by brochures. They trust universities as sources of information and they think the Southwest Florida Water Management District is a trusted source of information. Emails were another method that workers preferred for receiving information.

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

Some workers had little to no idea what the District did or what it represented, while other workers were more familiar with it. Workers did see the District as having an important role in educating homeowners about fertilizing, especially homeowners who applied their own fertilizer.

VI. Lessons Learned in this Study

The District requested a section regarding lessons learned from the moderator tools and this study.

Script. The script used for homeowners worked well and seemed to be appropriate (see Appendix 2). That is, there seemingly are no changes necessary if this study were to be replicated. The exercises seem to be appropriate as well (see Appendix 2).

The script used for owners was slightly more problematic in that owners disagreed with the premise of the study, i.e., that increased or enhanced communication between homeowners and lawn services would improve the health of the springs and other water bodies. Owners also felt that the study unduly focused on them as part of the problem regarding fertilizer and the health of the springs. Rather, they saw themselves as part of the solution. They believed they followed proper fertilizing techniques and that homeowners who fertilized their own lawns were the primary culprits. They also believed that national lawn service firms such as TruGreen, Scotts, etc., were a lesser part of the problem. Owners also thought that a proper fertilizing technique checklist patterned after the GI-BMP would not be totally accurate.

Given the aforementioned issues, it was difficult to move through the script with owners.

Study design. Another lesson to be learned from this study relates to the study design. Previous research showed that 38.5% of homeowners in northern counties hired landscape firms. Given an incidence of 38.5%, recruiting for focus groups should not be overly difficult. Yet, recruiting for these focus groups was extremely difficult and required allocation of resources far beyond those normally allocated for recruiting. Nonetheless, recruiting was not entirely successful across all groups.

The study design divided homeowners into four groups: 1. Belonged to a homeowners association and lived near water, 2. Belonged to a homeowners association and did not live near water, 3. Did not belong to a homeowners association and lived near water, and 4. Did not belong to a homeowners association and did not live near water. This division made it much more difficult to recruit participants, yet the design was not the only issue.

The 38.5% figure came from research prior to a deep recession that affected how many homeowners hired landscape firms to fertilize their lawns. The characteristics of the residents in the study area also seemed to adversely influence recruiting success. Previous research in areas with high percentages of retired people (e.g., The Villages) was characterized by very high participation in focus groups. Retirees in the northern counties were not nearly as predisposed to participate. A community cohesiveness exists within The Villages that was lacking among residents in the northern counties.

Recruiting for owners and workers was also much more difficult than 99% of the 800+ focus groups in which this researcher has been involved. Recruiting for workers and employees was not entirely successful either. First, no national firms were willing to participate even though local and national offices of such firms were contacted. Second, the list of lawn service firms that applied fertilizer was a difficult list to produce and it was not a particularly long list of firms.

Appendix 1: List of Landscape Companies

Landscape companies used by residents

- Robert Hoffman Lawn Care
- Junior's Lawn Service
- Bush Lawn Service
- Mike Bray Lawn Care
- TruGreen
- Florida Pest
- Skype's Lawn Care
- Seno Lawn Care
- JR's Lawn Service
- Paul Castanga Lawn Service
- Art Lang and Associates
- Escape Lawn Service
- Suncoast Lawn & Turf
- Massey Services Pest and Termite
- Chuck Mock Lawn Service
- Garcia and Daryl
- Ron Shuster Pest Control

Landscape companies represented by owners/managers and employees

- Eco Floridian Lawn and Pest
- Top Hat
- Rayarm Tree Service and Landscaping.
- Citrus County
- Sharp Tree Farm
- City of Bucksville
- John Deer Landscape
- Hernando County Parks Department
- Shamrock Pest Control
- A Team Lawn Service
- Bug Exterminators
- Brick City Pest Control of Ocala
- Scott's Lawn Service
- Golf Course Superintendents

Appendix 2: Focus Group Scripts and Exercises

Springs Script

Residents who belong to an HOA and live near water

1. **PASS OUT BRIEF RESCREENER**
 - a. Hire & pay companies to fertilize and take care of their lawns
 - b. Belong to HOA
 - c. Live within a few blocks of a water body
2. **INTRODUCTION**
3. Let's start by talking about the springs in this area. **PASS OUT PICTURE OF SPRINGS**
What have you heard about the springs in this area? **DISCUSS**
4. **PASS OUT DESCRIPTION**– "A spring is a natural opening in the ground where water flows directly from the aquifer to the earth's surface. Springs are supplied from groundwater in the aquifer that provides the majority of this area's drinking water."
5. How concerned are you about the health of the springs in your area? **PASS OUT EXERCISE** Why?
6. Based on what you have heard, what types of activities may be harmful to the springs in your area? **DISCUSS**
7. Some of you mentioned fertilizing as harmful to the springs.
 - a. How are the springs impacted by improper fertilizing techniques?
 - b. (Some of you mentioned algae) Here is a picture of "bad" algae caused, in part, by improper fertilizing techniques.
 - c. We fertilize to make our lawns healthy, green and full and to make our plants healthy. **SHOW OF HANDS** Would you change how your lawn is fertilized if you found out you were creating "bad" algae in nearby water bodies? How? Have you already changed?
8. Write down some specific examples of what you think are proper fertilizing techniques **PASS OUT SUNSHINE EXERCISE**
9. Please write down the name of the lawn serviced that fertilizes your lawn.
 - a. **SHOW OF HANDS** – how many of your lawn care services are national firms or chains? How many are local businesses? How many of you have no idea?
 - b. Who would you trust more to use proper fertilizing techniques: a local firm, a national firm, or would it make any difference?
10. **PASS OUT GI-BMPs** Here is a list of proper fertilizing techniques. **READ**
 - a. Check which techniques your lawn service follows
 - b. Let's see a show of hands – whose landscape service follows all of these techniques?
 - c. How do you know what fertilizer techniques your landscaping service follows?
 - d. How often does your service fertilize your lawn?
12. Think back to when you hired your lawn service – how did you decide it was the one you wanted?
 - a. Would it have been helpful at that time to have an evaluation tool to help you interview each firm/person?
 - b. What evaluation factors should be in this tool?
 - c. Would it be helpful now?
13. Did you have any idea about the qualifications or certifications of your lawn service when you hired them?
 - a. How did you learn about their qualifications or certifications
 - i. What qualifications or certifications did they have – **WRITE DOWN**

- b. **Show of hands** – ever heard of a Green Industries Best Management Practices (GI-BMP) certification for landscape workers who apply fertilizer
 - i. **Write down** what that stands for
 - c. Do you happen to know if any of your landscape workers have earned a GI-BMP certification?
- 14. **SHOW OF HANDS** Do you have a written contract with your lawn care service or is it just an oral agreement?
 - a. What specifically is covered in your written agreement about fertilizing
- 15. Do you talk to your landscape service about how your lawn is fertilized?
 - a. Do you talk to the workers when they visit or do you talk to the owner/boss?
 - i. IF NO – what keeps you from doing this?
 - ii. Do you see any value in doing this?
 - b. Have you ever had a sit down, formal talk with your landscape service or are conversations “on the run”?
 - c. Do you give your lawn service instructions about fertilizing or do you trust them to do the right thing?
 - i. What instructions do you give them?
 - d. Ever check to see if they follow your instructions – how do you check?
 - e. Would it be useful for you to have a checklist of proper fertilizing techniques you could refer to when discussing fertilizing with your lawn service?
 - f. Do they leave you materials, brochures, letters, etc. that describe how they are fertilizing your lawn?
- 16. What regulations or restrictions does your HOA require relating to fertilizing?
 - a. Have you discussed these regulations or restrictions with your lawn service?
 - b. IF NOT – do you know if your lawn service follows fertilizing regulations set by your HOA
- 17. What’s the best way to reach you with messages about proper fertilizing techniques? **PASS OUT**

LIST

Tip sheets from lawn service	YouTube tutorials/YouTube videos
Tip sheets from Swiftmud	Facebook
Conversations with lawn service	Twitter
Community papers	Brochures
Interactive CDs	Other public outreach
Web pages for County, District	“How to” workshops – how to promote these?
Email from County/Swiftmud/eflyers/enewsletters	Bill inserts

18. Reactions to/messages for District

Springs Script

Residents who do not belong to an HOA and live near water

1. **PASS OUT BRIEF RESCREENER**
 - a. Hire & pay companies to fertilize and take care of their lawns
 - b. Do not belong to HOA
 - c. Live within a few blocks of a water body
2. **INTRODUCTION**
3. Let's start by talking about the springs in this area. **PASS OUT PICTURE OF SPRINGS**
What have you heard about the springs in this area? **DISCUSS**
4. **PASS OUT DESCRIPTION**– "A spring is a natural opening in the ground where water flows directly from the aquifer to the earth's surface. Springs are supplied from groundwater in the aquifer that provides the majority of this area's drinking water."
5. How concerned are you about the health of the springs in your area? **PASS OUT EXERCISE** Why?
6. Based on what you have heard, what types of activities may be harmful to the springs in your area? **DISCUSS**
7. Some of you mentioned fertilizing as harmful to the springs.
 - a. How are the springs impacted by improper fertilizing techniques?
 - b. (Some of you mentioned algae) Here is a picture of "bad" algae caused, in part, by improper fertilizing techniques.
 - c. We fertilize to make our lawns healthy, green and full and to make our plants healthy.
SHOW OF HANDS Would you change how your lawn is fertilized if you found out you were creating "bad" algae in nearby water bodies? How? Have you already changed?
8. Write down some specific examples of what you think are proper fertilizing techniques **PASS OUT SUNSHINE EXERCISE**
9. Please write down the name of the lawn serviced that fertilizes your lawn.
 - a. **SHOW OF HANDS** – how many of your lawn care services are national firms or chains? How many are local businesses? How many of you have no idea?
 - b. Who would you trust more to use proper fertilizing techniques: a local firm, a national firm, or would it make any difference?
10. **PASS OUT GI-BMPs** Here is a list of proper fertilizing techniques. **READ**
 - a. Check which techniques your lawn service follows
 - b. Let's see a show of hands – whose landscape service follows all of these techniques?
 - c. How do you know what fertilizer techniques your landscaping service follows?
 - d. How often does your service fertilize your lawn?
19. Think back to when you hired your lawn service – how did you decide it was the one you wanted?
 - a. Would it have been helpful at that time to have an evaluation tool to help you interview each firm/person?
 - b. What evaluation factors should be in this tool?
 - c. Would it be helpful now?
20. Did you have any idea about the qualifications or certifications of your lawn service when you hired them?
 - a. How did you learn about their qualifications or certifications
 - i. What qualifications or certifications did they have – **WRITE DOWN**
 - b. **Show of hands** – ever heard of a Green Industries Best Management Practices (GI-BMP) certification for landscape workers who apply fertilizer
 - i. **Write down** what that stands for

- c. Do you happen to know if any of your landscape workers have earned a GI-BMP certification?
- 21. **SHOW OF HANDS** Do you have a written contract with your lawn care service or is it just an oral agreement?
 - a. What specifically is covered in your written agreement about fertilizing
- 22. Do you talk to your landscape service about how your lawn is fertilized?
 - a. Do you talk to the workers when they visit or do you talk to the owner/boss?
 - i. IF NO – what keeps you from doing this?
 - ii. Do you see any value in doing this?
 - b. Have you ever had a sit down, formal talk with your landscape service or are conversations “on the run”?
 - c. Do you give your lawn service instructions about fertilizing or do you trust them to do the right thing?
 - i. What instructions do you give them?
 - d. Ever check to see if they follow your instructions – how do you check?
 - e. Would it be useful for you to have a checklist of proper fertilizing techniques you could refer to when discussing fertilizing with your lawn service?
 - f. Do they leave you materials, brochures, letters, etc. that describe how they are fertilizing your lawn?
- 23. What regulations or restrictions does your HOA require relating to fertilizing?
 - a. Have you discussed these regulations or restrictions with your lawn service?
 - b. IF NOT – do you know if your lawn service follows fertilizing regulations set by your HOA
- 24. What’s the best way to reach you with messages about proper fertilizing techniques? **PASS OUT**

LIST

Tip sheets from lawn service	YouTube tutorials/YouTube videos
Tip sheets from Swiftmud	Facebook
Conversations with lawn service	Twitter
Community papers	Brochures
Interactive CDs	Other public outreach
Web pages for County, District	“How to” workshops – how to promote these?
Email from County/Swiftmud/eflyers/enewsletters	Bill inserts

25. Reactions to/messages for District

Springs Script

Residents who belong to an HOA and do not live near water

1. **PASS OUT BRIEF RESCREENER**
 - a. Hire & pay companies to fertilize and take care of their lawns
 - b. Belong to HOA
 - c. Do not live within a few blocks of a water body
2. **INTRODUCTION**
3. Let's start by talking about the springs in this area. **PASS OUT PICTURE OF SPRINGS**
What have you heard about the springs in this area? **DISCUSS**
4. **PASS OUT DESCRIPTION**– “A spring is a natural opening in the ground where water flows directly from the aquifer to the earth's surface. Springs are supplied from groundwater in the aquifer that provides the majority of this area's drinking water.”
5. How concerned are you about the health of the springs in your area? **PASS OUT EXERCISE** Why?
6. Based on what you have heard, what types of activities may be harmful to the springs in your area? **DISCUSS**
7. Some of you mentioned fertilizing as harmful to the springs.
 - a. How are the springs impacted by improper fertilizing techniques?
 - b. (Some of you mentioned algae) Here is a picture of “bad” algae caused, in part, by improper fertilizing techniques.
 - c. We fertilize to make our lawns healthy, green and full and to make our plants healthy.
SHOW OF HANDS Would you change how your lawn is fertilized if you found out you were creating “bad” algae in nearby water bodies? How? Have you already changed?
8. Write down some specific examples of what you think are proper fertilizing techniques **PASS OUT SUNSHINE EXERCISE**
9. Please write down the name of the lawn serviced that fertilizes your lawn.
 - a. **SHOW OF HANDS** – how many of your lawn care services are national firms or chains? How many are local businesses? How many of you have no idea?
 - b. Who would you trust more to use proper fertilizing techniques: a local firm, a national firm, or would it make any difference?
10. **PASS OUT GI-BMPs** Here is a list of proper fertilizing techniques. **READ**
 - a. Check which techniques your lawn service follows
 - b. Let's see a show of hands – whose landscape service follows all of these techniques?
 - c. How do you know what fertilizer techniques your landscaping service follows?
 - d. How often does your service fertilize your lawn?
26. Think back to when you hired your lawn service – how did you decide it was the one you wanted?
 - a. Would it have been helpful at that time to have an evaluation tool to help you interview each firm/person?
 - b. What evaluation factors should be in this tool?
 - c. Would it be helpful now?
27. Did you have any idea about the qualifications or certifications of your lawn service when you hired them?
 - a. How did you learn about their qualifications or certifications
 - i. What qualifications or certifications did they have – **WRITE DOWN**
 - b. **Show of hands** – ever heard of a Green Industries Best Management Practices (GI-BMP) certification for landscape workers who apply fertilizer
 - i. **Write down** what that stands for

- c. Do you happen to know if any of your landscape workers have earned a GI-BMP certification?
- 28. **SHOW OF HANDS** Do you have a written contract with your lawn care service or is it just an oral agreement?
 - a. What specifically is covered in your written agreement about fertilizing
- 29. Do you talk to your landscape service about how your lawn is fertilized?
 - a. Do you talk to the workers when they visit or do you talk to the owner/boss?
 - i. IF NO – what keeps you from doing this?
 - ii. Do you see any value in doing this?
 - b. Have you ever had a sit down, formal talk with your landscape service or are conversations “on the run”?
 - c. Do you give your lawn service instructions about fertilizing or do you trust them to do the right thing?
 - i. What instructions do you give them?
 - d. Ever check to see if they follow your instructions – how do you check?
 - e. Would it be useful for you to have a checklist of proper fertilizing techniques you could refer to when discussing fertilizing with your lawn service?
 - f. Do they leave you materials, brochures, letters, etc. that describe how they are fertilizing your lawn?
- 30. What regulations or restrictions does your HOA require relating to fertilizing?
 - a. Have you discussed these regulations or restrictions with your lawn service?
 - b. IF NOT – do you know if your lawn service follows fertilizing regulations set by your HOA
- 31. What’s the best way to reach you with messages about proper fertilizing techniques? **PASS OUT**

LIST

Tip sheets from lawn service	YouTube tutorials/YouTube videos
Tip sheets from Swiftmud	Facebook
Conversations with lawn service	Twitter
Community papers	Brochures
Interactive CDs	Other public outreach
Web pages for County, District	“How to” workshops – how to promote these?
Email from County/Swiftmud/eflyers/enewsletters	Bill inserts

32. Reactions to/messages for District

Springs Script

Residents who do not belong to an HOA and do not live near water

1. **PASS OUT BRIEF RESCREENER**
 - a. Hire & pay companies to fertilize and take care of their lawns
 - b. Do not belong to HOA
 - c. Do not live within a few blocks of a water body
2. **INTRODUCTION**
3. Let's start by talking about the springs in this area. **PASS OUT PICTURE OF SPRINGS**
What have you heard about the springs in this area? **DISCUSS**
4. **PASS OUT DESCRIPTION**– "A spring is a natural opening in the ground where water flows directly from the aquifer to the earth's surface. Springs are supplied from groundwater in the aquifer that provides the majority of this area's drinking water."
5. How concerned are you about the health of the springs in your area? **PASS OUT EXERCISE** Why?
6. Based on what you have heard, what types of activities may be harmful to the springs in your area? **DISCUSS**
7. Some of you mentioned fertilizing as harmful to the springs.
 - a. How are the springs impacted by improper fertilizing techniques?
 - b. (Some of you mentioned algae) Here is a picture of "bad" algae caused, in part, by improper fertilizing techniques.
 - c. We fertilize to make our lawns healthy, green and full and to make our plants healthy. **SHOW OF HANDS** Would you change how your lawn is fertilized if you found out you were creating "bad" algae in nearby water bodies? How? Have you already changed?
8. Write down some specific examples of what you think are proper fertilizing techniques **PASS OUT SUNSHINE EXERCISE**
9. Please write down the name of the lawn serviced that fertilizes your lawn.
 - a. **SHOW OF HANDS** – how many of your lawn care services are national firms or chains? How many are local businesses? How many of you have no idea?
 - b. Who would you trust more to use proper fertilizing techniques: a local firm, a national firm, or would it make any difference?
10. **PASS OUT GI-BMPs** Here is a list of proper fertilizing techniques. **READ**
 - a. Check which techniques your lawn service follows
 - b. Let's see a show of hands – whose landscape service follows all of these techniques?
 - c. How do you know what fertilizer techniques your landscaping service follows?
 - d. How often does your service fertilize your lawn?
11. Think back to when you hired your lawn service – how did you decide it was the one you wanted?
 - a. Would it have been helpful at that time to have an evaluation tool to help you interview each firm/person?
 - b. What evaluation factors should be in this tool?
 - c. Would it be helpful now?
12. Did you have any idea about the qualifications or certifications of your lawn service when you hired them?
 - d. How did you learn about their qualifications or certifications
 - i. What qualifications or certifications did they have – **WRITE DOWN**
 - e. **Show of hands** – ever heard of a Green Industries Best Management Practices (GI-BMP) certification for landscape workers who apply fertilizer
 - i. **Write down** what that stands for

- f. Do you happen to know if any of your landscape workers have earned a GI-BMP certification?
- 13. **SHOW OF HANDS** Do you have a written contract with your lawn care service or is it just an oral agreement?
 - g. What specifically is covered in your written agreement about fertilizing
- 14. Do you talk to your landscape service about how your lawn is fertilized?
 - h. Do you talk to the workers when they visit or do you talk to the owner/boss?
 - i. IF NO – what keeps you from doing this?
 - ii. Do you see any value in doing this?
 - i. Have you ever had a sit down, formal talk with your landscape service or are conversations “on the run”?
 - j. Do you give your lawn service instructions about fertilizing or do you trust them to do the right thing?
 - i. What instructions do you give them?
 - k. Ever check to see if they follow your instructions – how do you check?
 - l. Would it be useful for you to have a checklist of proper fertilizing techniques you could refer to when discussing fertilizing with your lawn service?
 - m. Do they leave you materials, brochures, letters, etc. that describe how they are fertilizing your lawn?
- 15. What regulations or restrictions does your HOA require relating to fertilizing?
 - n. Have you discussed these regulations or restrictions with your lawn service?
 - o. IF NOT – do you know if your lawn service follows fertilizing regulations set by your HOA
- 16. What’s the best way to reach you with messages about proper fertilizing techniques? **PASS OUT**

LIST

Tip sheets from lawn service	YouTube tutorials/YouTube videos
Tip sheets from Swiftmud	Facebook
Conversations with lawn service	Twitter
Community papers	Brochures
Interactive CDs	Other public outreach
Web pages for County, District	“How to” workshops – how to promote these?
Email from County/Swiftmud/eflyers/enewsletters	Bill inserts

17. Reactions to/messages for District

Springs Script

Landscape Business Owners/Managers

1. PASS OUT BRIEF RESCREENER

- a. Own/manage a company that applies fertilizer to customers' lawns
- b. Instruct employees on how to do their jobs
- c. Customers live in Marion, Citrus, Hernando counties

2. Introductions will include how long they have owned/managed a company that applies fertilizer

3. Let's start by talking about the springs in Marion, Citrus & Hernando counties. PASS OUT PICTURE OF SPRINGS

What do you know or what have you heard about the health of the springs in these counties??

DISCUSS

4. PASS OUT EXERCISE What impact does improper fertilizing have on springs in Marion, Citrus and Hernando counties?

5. Do you instruct your employees to apply fertilizer the same way on all your customers' lawns?

- a. **IF NOT** – What factors impact what you tell your employees about how & when & where they should apply fertilizer
- b. Do you instruct your employees to fertilize the same regardless of whether a lawn is 5 miles from a water body or right next to a water body?
- c. How far from water do you instruct your employees to fertilize – is this a written instruction for all employees to see
- d. Do you instruct your employees to apply fertilizer the same way whether or not rain is in the forecast?
 - i. What plans do you have in place if rain threatens a scheduled fertilizer application?
 - ii. What would need to change to allow/encourage/permit your employees to not fertilize as a storm approaches

6. PASS OUT EXERCISE Here is a list of fertilizing techniques. Please check the ones you tell your employees to always do, sometimes do, and never do.

7.

- a. Avoid fertilizing before a heavy rain
- b. Test the soil to determine fertilization needs
- c. Establish fertilizer-free buffer zones around water bodies
- d. Use a fertilizer broadcast spreader deflector shield
- e. follow fertilizer package directions
- f. Inspect for insects and disease before applying nutrients
- g. Measure yard and apply fertilizer to deliver the correct amount based on the size of the yard
- h. Calibrate fertilizer application equipment
- i. Water-in fertilizer with ¼ inch of water
- j. Sweep up any fertilizer spills

8. Have you ever heard of the Green Industries Best Management Practices for fertilizing?

- a. Which fertilizing techniques are recommended in the GI-BMP
- b. Which ones does your company not do because you disagree with them, or your employees don't want to or can't do them

9. What % of your workers have completed the GI-BMP certification?

- a. Do you recommend to your employees that they get GI-BMP certification?
 - b. Why/why not
 - c. Does having workers who have completed the GI-BMP improve the service your company offers or is the GI-BMP just a bunch of letters that don't make employees any better
 - d. Do you encourage your employees to attend other workshops on proper fertilizing techniques
 - i. Florida Nursery Growers Association?
 - ii. How do you encourage them?
10. Would you like to instruct your employees to fertilize and landscape differently than you do now, but can't change because of customers or because of economics or because of competition?
- a. What would you like to have your employees do differently
11. How much do you talk to your customers about fertilizing their lawns to explain what you do or to listen to what they want you to do?
- a. IF NOT – what keeps those conversations from happening? Would they be of value?
 - b. Would you find it helpful to have a tool (some sort of card or brochure) to hand to the customer to assist you with working with the customer or having a conversation with them?
 - a. Do you encourage or discourage your employees from having conversations with your clients?
 - b. Do those conversations help
 - c. What % of your customers give you instructions about fertilizing
 - d. Do you follow their instructions or do you just figure you know more about it than they do
 - e. What instructions do they give you
 - f. Do they ever check to see if you are following their instructions about fertilizing – how
 - g. Do you discuss with homeowners how their landscaping plan will help prevent nitrogen pollution in the springs/water bodies?
 - i. Are you able to follow plans that prevent nitrogen pollution or do homeowners over rule you?
 - h. Do you leave brochures or instructions with your customers that explain proper fertilizing techniques?
12. What else can lawn services that apply fertilizer do to better protect the springs ?
13. Do HOA regulations or restrictions force you to do your job differently than you would like to do it? **EXPLORE**
- a. What are these regulations or restrictions
 - b. Are they in writing
14. What's the best way to reach you with messages about training & proper fertilizing techniques?

PASS OUT LIST

Email from County/Swiftmud/eflyers/enewsletters	Web pages for County, District
YouTube tutorials/YouTube videos	"How to" workshops – how to promote these?
Facebook	Interactive CDs
Twitter	Brochures
Community newspapers	Tip sheets from Swiftmud
Tip sheets from County extension service	In-person training sessions
Webinars	Through organizations you belong to

15. **Reactions to/messages for District**

Springs Script

Landscape workers

1. PASS OUT BRIEF RESCREENER

- a. Work for a company that applies fertilizer
- b. They apply fertilizer to customers' lawns
- c. Work in Marion, Citrus, Hernando counties

2. Introductions will include how long they have been applying fertilizer as an employee for a landscape/lawn service business

3. Let's start by talking about the springs in Marion, Citrus & Hernando counties. **PASS OUT**

PICTURE OF SPRINGS

What do you know or what have you heard about the health of the springs in these counties?

DISCUSS

4. **PASS OUT EXERCISE** What impact does improper fertilizing have on springs in Marion, Citrus and Hernando counties?

5. Do you apply fertilizer the same way on all the lawns you service?

- a. **IF NOT** – What factors impact how & when & where you apply fertilizer
- b. Do you fertilize the same regardless of whether a lawn is 5 miles from a water body or right next to a water body?
- c. How far from water should you fertilize?
- d. Do you apply fertilizer the same way whether or not rain is in the forecast?
 - i. What plans do you have in place if rain threatens a scheduled fertilizer application?
 - ii. Do you fertilize if it is already raining when you get to a customer's house?
 - iii. What would need to change to allow/encourage/permit you to not fertilize as a storm approaches?

6. **PASS OUT EXERCISE** Here is a list of fertilizing techniques. Please check which ones are recommended based on the Green Industries Best Management Practices (GI-BMPs) & check the ones you always do, sometimes do, and never do.

7.

- a. Avoid fertilizing before a heavy rain
- b. Test the soil to determine fertilization needs
- c. Establish fertilizer-free buffer zones around water bodies
- d. Use a fertilizer broadcast spreader deflector shield
- e. follow fertilizer package directions
- f. Inspect for insects and disease before applying nutrients
- g. Measure yard and apply fertilizer to deliver the correct amount based on the size of the yard
- h. Calibrate fertilizer application equipment
- i. Water-in fertilizer with ¼ inch of water
- j. Sweep up any fertilizer spills

8. Which fertilizing techniques are recommended in the GI-BMP that you can't really do because your boss doesn't want you to do it, it's too hard, takes too much time, costs too much, customers don't want it, etc.?

- a. What would you do differently

9. Which fertilizer techniques are recommended by the GI-BMP that you make sure you do?

10. You have all earned the GI-BMP certification – does this certification

- a. Help you earn more money
 - b. Make you a better at your job
 - c. Prepare you better to protect the springs
 - d. Would you attend a GI-BMP refresher course? Other workshops on fertilizing?
 - i. Florida Nursery Growers Assn workshops?
 - e. Why/why not
11. What qualifications or certifications do you have other than GI-BMP?
12. What do you think landscape professionals could do better to help protect water quality?
13. How much do you talk with your customers about fertilizing their lawns to explain what you do or to listen to what they want you to do?
- a. IF NOT – what keeps those conversations from happening? Would they be of value?
 - b. Do those conversations help
 - c. Would you find it helpful to have a tool (some sort of card or brochure) to hand to the customer to assist you with working with the customer or having a conversation with them?
 - d. What % of your customers give you instructions about fertilizing
 - e. Do you follow their instructions/suggestions or do you just figure you know more about it than they do
 - f. What instructions do they give you
 - g. Do they ever check to see if you are following their instructions about fertilizing – how do they check?
 - h. What do you do if customers give you instructions to fertilize improperly?
 - i. Do you leave brochures or instructions with your customers that explain proper fertilizing techniques?
14. Do HOA regulations or restrictions force you to do your job differently than you would like to do it. **EXPLORE**
- a. What are these regulations or restrictions
 - b. Are they in writing
15. What's the best way to reach you with messages about training and proper fertilizing techniques? **PASS OUT LIST**
- | | |
|---|--|
| Email from County/Swiftmud/eflyers/enewsletters | Web pages for County, District |
| YouTube tutorials/YouTube videos | "How to" workshops – how to promote these? |
| Facebook | Interactive CDs |
| Twitter | Brochures |
| Community newspapers | Tip sheets from Swiftmud |
| Webinars | |
| Through organizations you belong to | |
| In-person training sessions | |
| Tip sheets from County extension service | |

16. Reactions to/messages for District

Homeowner Exercises

Re-Screener

You hire & pay lawn service companies to fertilize your lawn.

_____ Yes

_____ No/not sure

You belong to a homeowners association.

_____ Yes

_____ No/not sure

You live within several blocks or so of a water body (lake, stream, river, pond, gulf)

_____ Yes

_____ No/not sure

Picture of springs in Marion, Citrus & Hernando counties



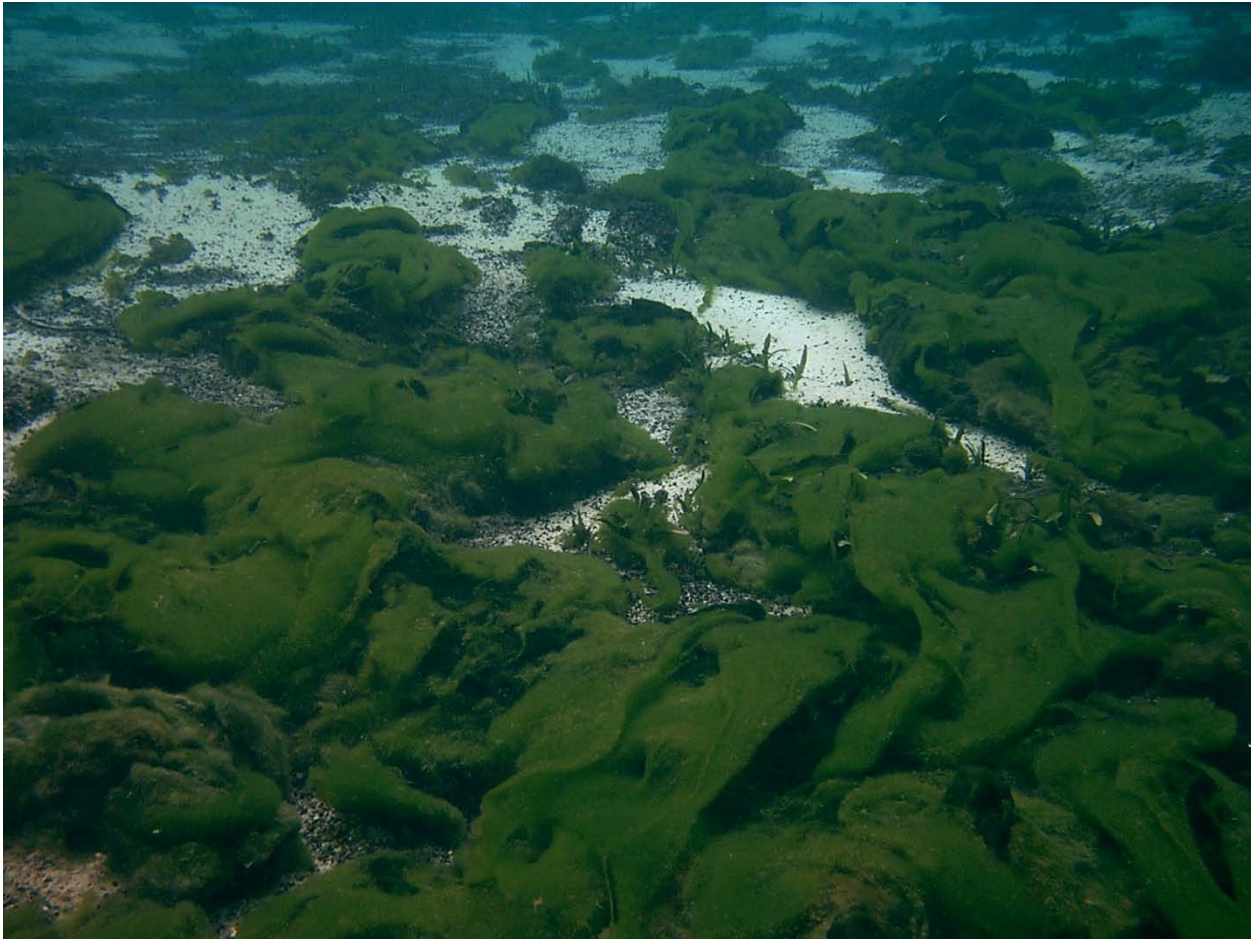
Springs are natural openings in the ground where water flows directly from the aquifer to the earth's surface. Springs are supplied from groundwater in the aquifer that provides the majority of the drinking water for Marion, Citrus & Hernando counties.

How concerned are you about the health of the springs in Marion, Citrus & Hernando counties?

Not at all concerned ____:____:____:____:____:____:____:____:____:____ Extremely concerned

WHY? _____

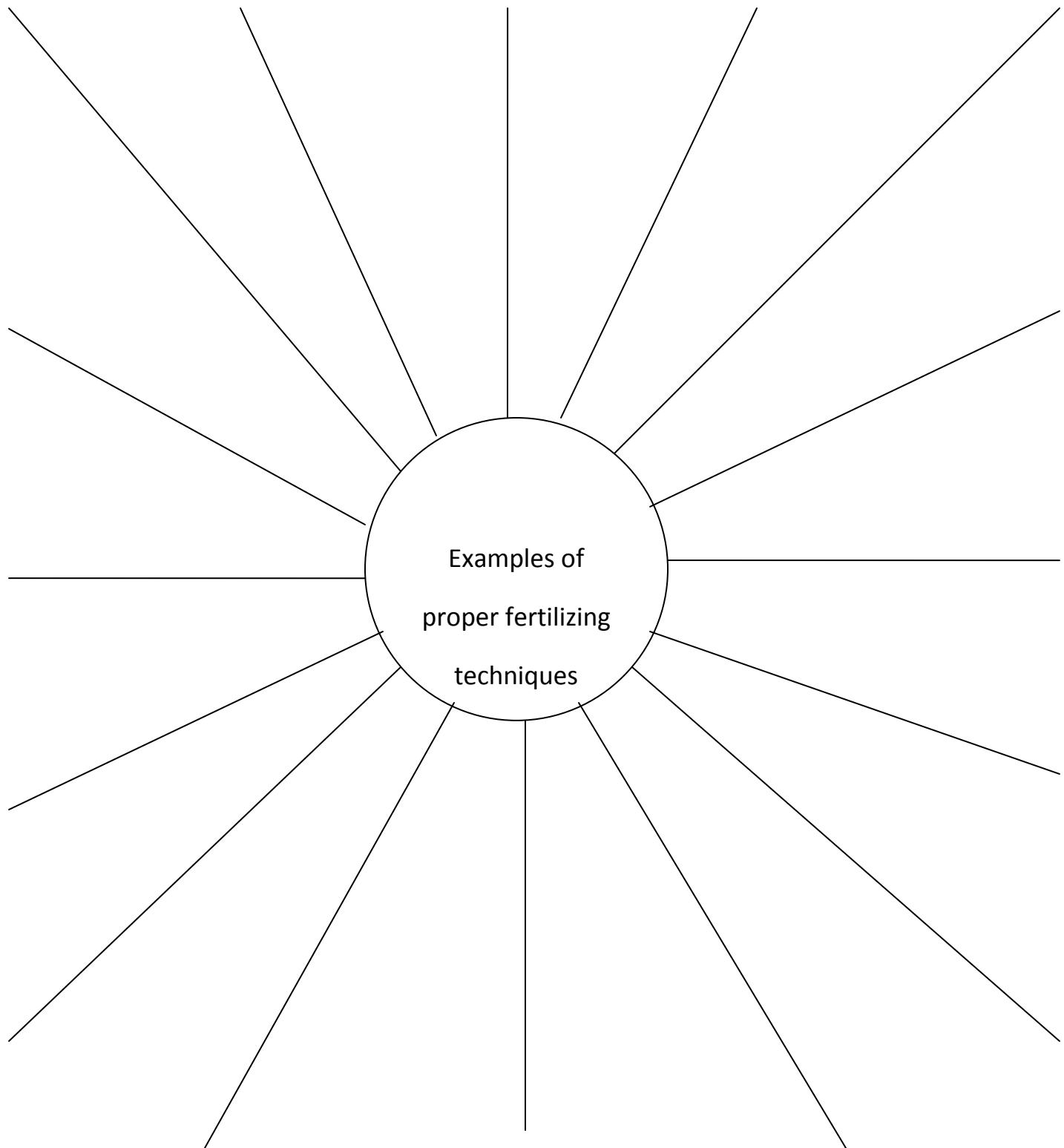
Picture of “bad” algae



Place check (✓) to indicate fertilizing techniques your lawn service follows

(If you don't know, then check "Don't know")

Fertilizer Techniques	<i>All the time</i>	<i>Some of the time</i>	<i>Don't know</i>
Do not fertilizer before a heavy rain			
Test the soil to determine if fertilizing is necessary			
Leave a fertilizer free buffer zone around water bodies			
Always follow fertilizer package instructions			
Inspect for insects and disease before applying nutrients			
Measure the yard and apply fertilizer to deliver the correct amount based on the yard size			
Calibrate fertilizer application equipment			
Water-in fertilizer with ¼ inch of water			
Sweep up any fertilizer spills			
Schedule fertilizer applications based on UF/IFAS recommendations			
Choose slow-release instead of quick-release fertilizer, when appropriate			
Other _____			
Other _____			



Best way to get messages to you about proper fertilizing techniques.

- _____ Tip sheets from lawn service
- _____ Tip sheets from Swiftmud
- _____ Conversations with lawn service
- _____ Community newspapers
- _____ Interactive CDs
- _____ Web pages for County, Swiftmud, etc.
- _____ Inserts in your homeowners association bill
- _____ Inserts in your lawn service bill
- _____ Emails from County Extension Office, Swiftmud, etc.
- _____ Facebook
- _____ Twitter
- _____ Brochures from lawn service
- _____ Brochures in the mail from County Extension Office, Swiftmud, etc.
- _____ Attend "How to" workshops
- _____ Other _____

Reactions about/messages for Swiftmud (Southwest Florida Water Management District)

Owner/Manager Exercises

Re-Screener

I own/manage a company that applies fertilizer to customers' lawns in Marion, Hernando or Citrus counties

_____ Yes

_____ No

I instruct my employees on how to do their jobs and how to apply fertilizer.

_____ Yes

_____ No

Picture of springs in Marion, Citrus & Hernando counties



Springs are natural openings in the ground where water flows directly from the aquifer to the earth's surface. Springs are supplied from groundwater in the aquifer that provides the majority of the drinking water for Marion, Citrus & Hernando counties.

What impact does improper fertilizing have on the springs in Marion, Citrus & Hernando counties?

Place check (✓) the fertilizing techniques your employees have been instructed to follow

Check 1 of the answers for each technique

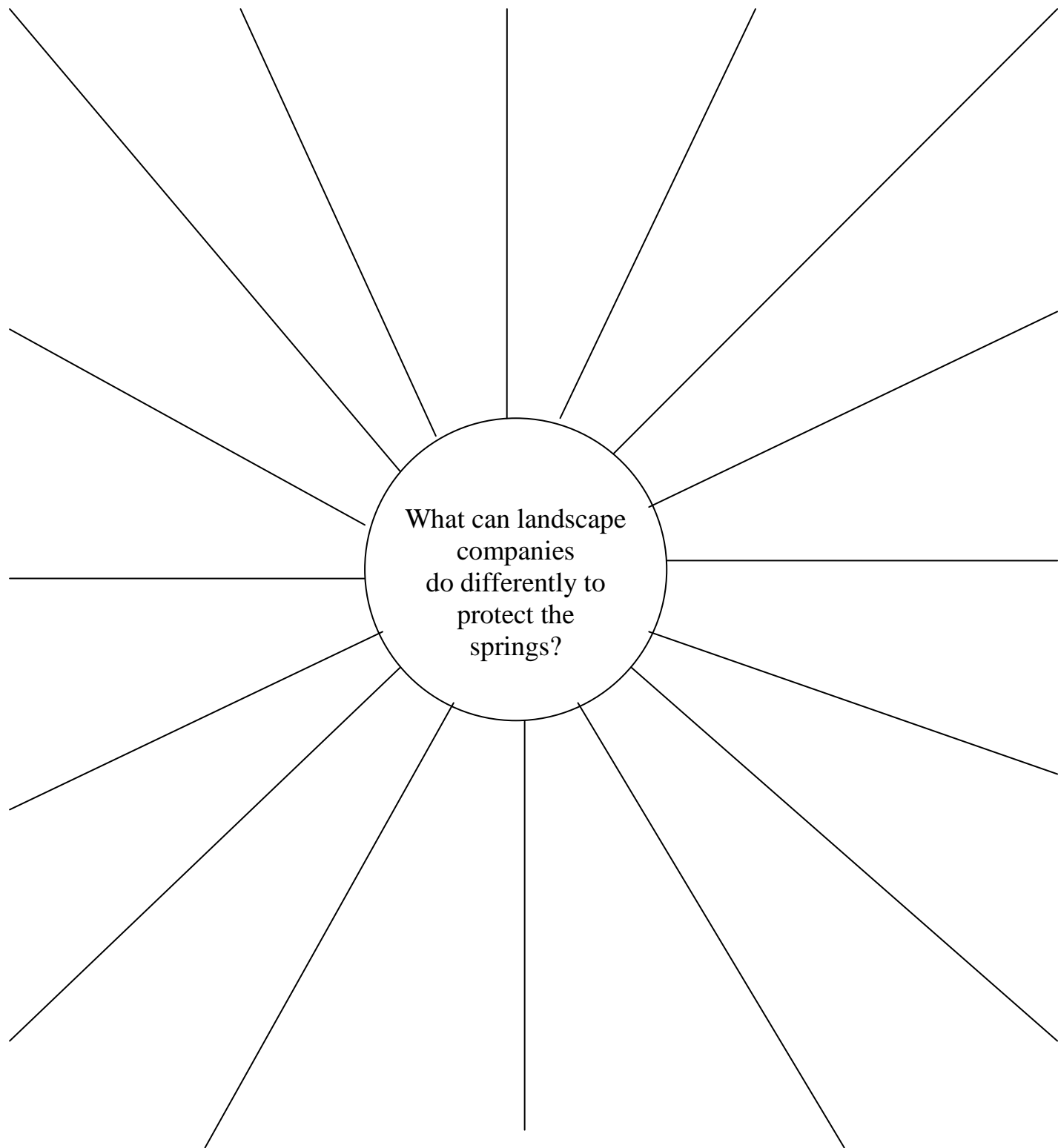
Fertilizer Techniques	<i>All the time</i>	<i>Some of the time</i>	<i>Don't do</i>
Do not fertilizer before a heavy rain			
Test the soil to determine if fertilizing is necessary			
Leave a fertilizer free buffer zone around water bodies			
Always follow fertilizer package instructions			
Inspect for insects and disease before applying nutrients			
Measure the yard and apply fertilizer to deliver the correct amount based on the yard size			
Calibrate fertilizer application equipment			
Water-in fertilizer with ¼ inch of water			
Sweep up any fertilizer spills			
Schedule fertilizer applications based on UF/IFAS recommendations			
Choose slow-release instead of quick-release fertilizer, when appropriate			
Other _____			
Other _____			

Please check (v) the fertilizing techniques that are:

1. Easiest for you to do
2. Most noticeable to homeowners
3. Have the most positive impact on preserving water quality of the springs

Check as many techniques as you wish in each column

Fertilizer Techniques	<i>1. Easiest for you to do</i>	<i>2. Most noticeable to homeowners</i>	<i>3. Most impact on preserving the springs</i>
Do not fertilizer before a heavy rain			
Test the soil to determine if fertilizing is necessary			
Leave a fertilizer free buffer zone around water bodies			
Always follow fertilizer package instructions			
Inspect for insects and disease before applying nutrients			
Measure the yard and apply fertilizer to deliver the correct amount based on the yard size			
Calibrate fertilizer application equipment			
Water-in fertilizer with ¼ inch of water			
Sweep up any fertilizer spills			
Schedule fertilizer applications based on UF/IFAS recommendations			
Choose slow-release instead of quick-release fertilizer, when appropriate			
Other _____			
Other _____			



Best way to get information to you and your employees about proper fertilizing techniques.

- _____ Tip sheets from County Extension service
- _____ Tip sheets from Swiftmud
- _____ Attend workshops at Swiftmud
- _____ Attend workshops at Florida Nursery Growers Association
- _____ Attend workshops at County Extension service
- _____ Take a refresher workshop with Green Industries Best Management Practices (GI-BMP)
- _____ Interactive CDs
- _____ Look in web pages for County, Swiftmud, etc.
- _____ Emails from County Extension Office, Swiftmud, etc.
- _____ Facebook
- _____ Twitter
- _____ Brochures in the mail from County Extension Office, Swiftmud, etc.
- _____ Other _____

Reactions about/messages for Swiftmud (Southwest Florida Water Management District)

Landscape worker Exercises

Re-Screener

I work for a landscape or lawn service that applies fertilizer to customers' lawns.

_____ Yes

_____ No

I personally apply fertilizer to customers' lawns

_____ Yes

_____ No

I work in Marion, Hernando or Citrus county.

_____ Yes

_____ No

Picture of springs in Marion, Citrus & Hernando counties



Springs are natural openings in the ground where water flows directly from the aquifer to the earth's surface. Springs are supplied from groundwater in the aquifer that provides the majority of the drinking water for Marion, Citrus & Hernando counties.

What impact does improper fertilizing have on the springs in Marion, Citrus & Hernando counties?

Place check (✓) to indicate fertilizing techniques you follow

Check 1 of the answers for each technique

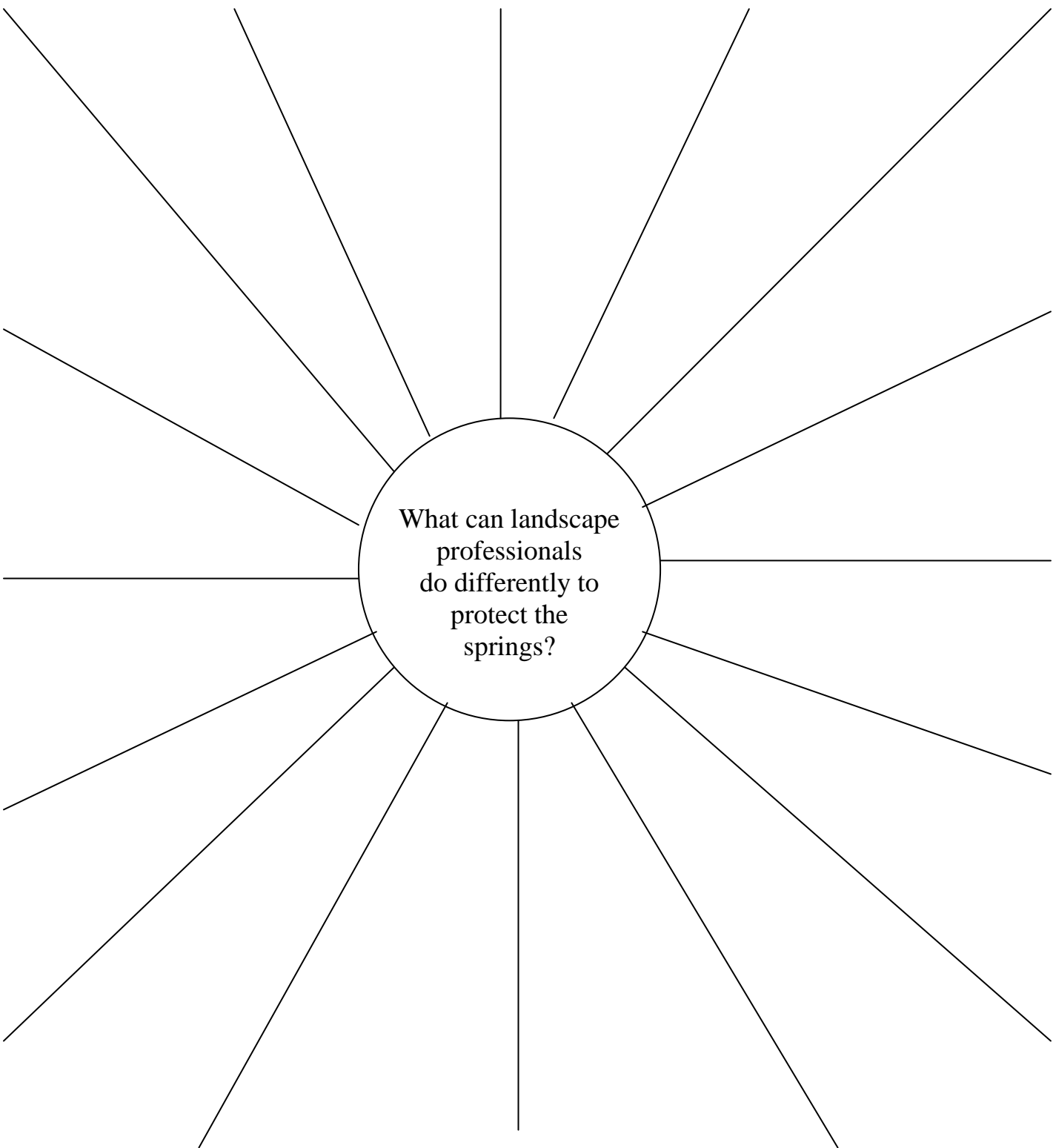
Fertilizer Techniques	<i>All the time</i>	<i>Some of the time</i>	<i>Don't do</i>
Do not fertilizer before a heavy rain			
Test the soil to determine if fertilizing is necessary			
Leave a fertilizer free buffer zone around water bodies			
Always follow fertilizer package instructions			
Inspect for insects and disease before applying nutrients			
Measure the yard and apply fertilizer to deliver the correct amount based on the yard size			
Calibrate fertilizer application equipment			
Water-in fertilizer with ¼ inch of water			
Sweep up any fertilizer spills			
Schedule fertilizer applications based on UF/IFAS recommendations			
Choose slow-release instead of quick-release fertilizer, when appropriate			
Other _____			
Other _____			

Please check (v) the fertilizing techniques that are:

1. Easiest for you to do
2. Most noticeable to homeowners
3. Have the most positive impact on preserving water quality of the springs

Check as many techniques as you wish in each column

Fertilizer Techniques	<i>1. Easiest for you to do</i>	<i>2. Most noticeable to homeowners</i>	<i>3. Most impact on preserving the springs</i>
Do not fertilizer before a heavy rain			
Test the soil to determine if fertilizing is necessary			
Leave a fertilizer free buffer zone around water bodies			
Always follow fertilizer package instructions			
Inspect for insects and disease before applying nutrients			
Measure the yard and apply fertilizer to deliver the correct amount based on the yard size			
Calibrate fertilizer application equipment			
Water-in fertilizer with ¼ inch of water			
Sweep up any fertilizer spills			
Schedule fertilizer applications based on UF/IFAS recommendations			
Choose slow-release instead of quick-release fertilizer, when appropriate			
Other _____			
Other _____			



Best way to get information to you about proper fertilizing techniques.

- _____ Tip sheets from County Extension service
- _____ Tip sheets from Swiftmud
- _____ Attend workshops at Swiftmud
- _____ Attend workshops at Florida Nursery Growers Association
- _____ Attend workshops at County Extension service
- _____ Take a refresher workshop with Green Industries Best Management Practices (GI-BMP)
- _____ Interactive CDs
- _____ Look in web pages for County, Swiftmud, etc.
- _____ Emails from County Extension Office, Swiftmud, etc.
- _____ Facebook
- _____ Twitter
- _____ Brochures in the mail from County Extension Office, Swiftmud, etc.
- _____ Other _____

Reactions about/messages for Swiftmud (Southwest Florida Water Management District)
