



LINAP Fertilizer Management Workgroup Questionnaire Response Summary

Use of Native Plants to Reduce Fertilizer Requirements

A native plant is one that occurs naturally in a particular region, ecosystem, or habitat without direct or indirect human intervention. Native plants are best adapted to local soil conditions and therefore require less fertilizer, water and pesticides. Native plants can be drought and heat tolerant, are often more resistant to disease, less likely to be invasive, less likely to outcompete other natives. Use of locally sourced plants reduces the chance of importing exotic pests and increases native/natural habitats thus improving the overall ecosystem health.

Summary of Findings

- Opportunities to use native plants:
 - The vast majority of respondents agree that there are opportunities to use native plants for:
 - Residential landscape
 - Commercial landscape
 - Agriculture
 - Golf courses
 - All respondents agree that there are business opportunities in developing the availability of native plants.
- Identified usages of native plants by respondents:
 - Vegetative buffers in agriculture
 - Sold by garden centers
 - Green infrastructure
 - Landscape design
 - Building industry
 - Golf courses
 - Plant demo gardens
 - Cover crops, borders, headlands, pollinator strips

- Habitat restoration
- Barriers identified to the use of native plants in agriculture ranked in order of the most common to the least common:
 - Lack of market interest
 - Misperceptions and lack of information
 - Aesthetic preferences
 - Most food crops are not native
 - Lack of promotion by nursery
 - Availability
- Barriers identified to the use of native plants on golf courses ranked in order of the most common to the least common:
 - Aesthetic preference for non-native
 - Misperceptions and lack of information
 - Lack of market interest
 - Cost
 - Availability
- Barriers identified to the use of native plants in residential landscaping ranked in order of the most common to the least common:
 - Misperceptions and lack of information
 - Aesthetic preference for non-native plants
 - Availability
 - Cost
 - Lack of market interest
 - Lack of promotion by nurseries
- Barriers identified to the use of native plants in commercial landscaping ranked in order of the most common to the least common:
 - Aesthetic preference for non-native plants
 - Misperceptions and lack of information
 - Availability
 - Cost
 - Lack of market interest
 - Lack of promotion by nurseries

Native Plants Questionnaire Answers & Analysis

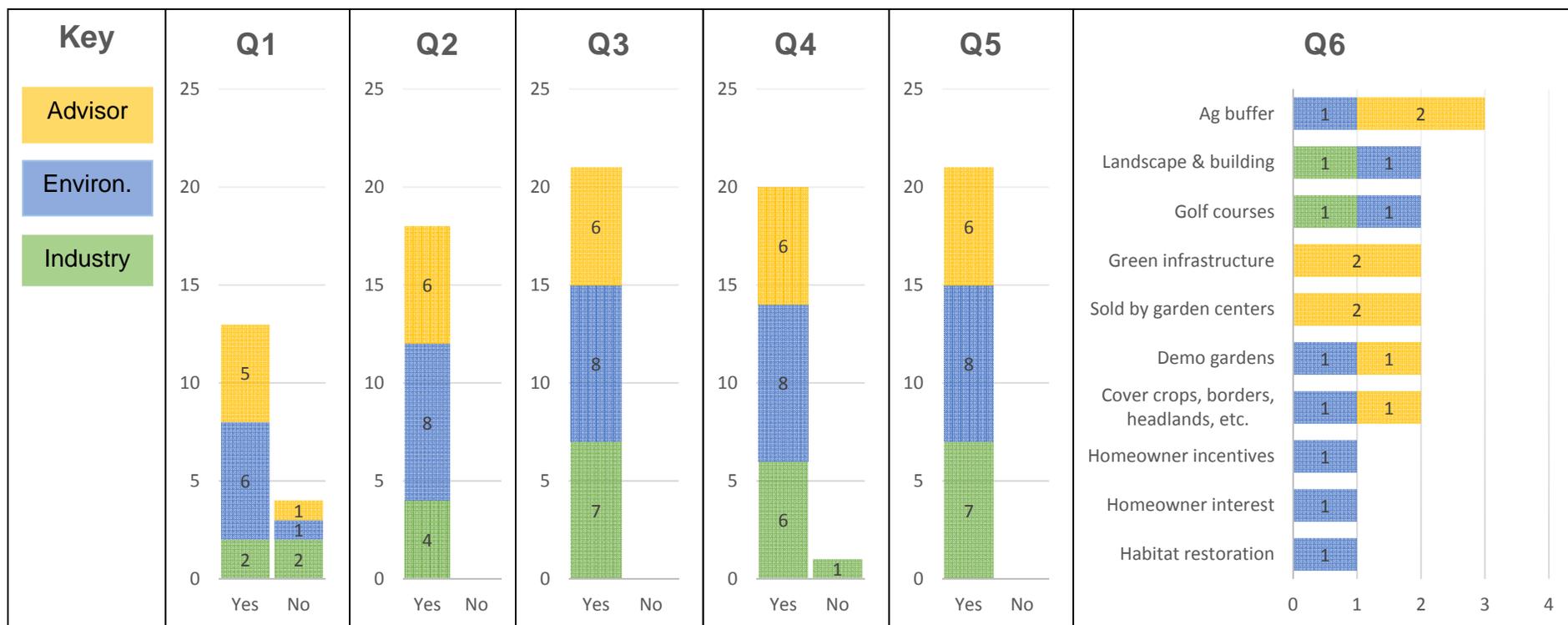
Questions 1-6: Opportunities for using native plants

Affiliation	Q1 (Do you think there are opportunities for using more native plants in agriculture?)	Q2 (Do you think there are opportunities to use more native plants on golf courses?)	Q3 (Do you think there are opportunities to use more native plants in residential landscaping?)	Q4 (Do you think there are opportunities to use more native plants in commercial landscaping?)	Q5 (Do you think there are business opportunities in developing the availability of native plants?)	Q6 (To what extent are you using native plants in your trade?)
Advisor 1	Yes	Yes	Yes	Yes	Yes	Selling of native plants by garden centers. Native plants can be used as a vegetative buffer in agriculture.
Advisor 2	No	Yes	Yes	Yes	Yes	Q1's answer No was related to general, for nursery production would be Yes. There is generally little to no opportunity to use native plants in agriculture. Some exceptions MIGHT include cover crops, border rows, headland areas, pollinator strips, but their practicality, economics, and effect on reducing N would need to be looked into. There are a few native plants being produced as food crops, all on a small scale (blueberries; cranberries are native but not locally produced, and a couple of other very niche crops). However in ornamental horticulture/nursery production numerous natives are grown; again would need to verify if increased production of native plants would solely result in any real reduction of N application or leaching.
Advisor 3	Yes	Yes	Yes	Yes	Yes	Green infrastructure to mitigate stormwater. We promote the use of native plants or cultivars of native plants with our projects.
Advisor 4	Yes	Yes	Yes	Yes	Yes	We use native plants extensively in green infrastructure projects such as rooftop gardens and raingardens.

Affiliation	Q1 cont'd (opportunities for native plants in agriculture)	Q2 cont'd (opportunities for native plants on golf courses)	Q3 cont'd (opportunities for native plants in residential landscaping)	Q4 cont'd (opportunities for native plants in commercial landscaping)	Q5 cont'd (opportunities for business opportunities in native plants)	Q6 cont'd (extent using native plants in your trade)
Advisor 5	Yes	Yes	Yes	Yes	Yes	Not a business. However, the H. Lee Dennison Building does have a 9/11 memorial garden featuring native species.
Advisor 6	Yes	Yes	Yes	Yes	Yes	Cornell Cooperative Extension Nassau County has a demonstration Native Plant Garden for anyone visiting the East
Environ. 1	Yes	Yes	Yes	Yes	Yes	We work to encourage use of native plants, plant demonstration gardens, support LINPI, and incentivize their use through a homeowner rewards program.
Environ. 2	No	Yes	Yes	Yes	Yes	We grow some native plants on my personal farm to sell as land scape plantings. Seems to be lots of interest in the general public to buy these plants.
Environ. 3	Yes	Yes	Yes	Yes	Yes	NA
Environ. 4		Yes	Yes	Yes	Yes	Some EPA funded habitat restoration projects carried out by partners via federal grants utilize only native plants. For golf courses, native turf and plantings. For agriculture, are we talking about using native plants for buffers, no-till covers, vegetated strips to support pollinators? Also, important to develop native plant nursery capacity. But getting to scale of native cultivars can reduce diversity. Will require work with industry.
Environ. 5	Yes	Yes	Yes	Yes	Yes	Not applicable. But familiar with the industry.
Environ. 6	Yes	Yes	Yes	Yes	Yes	Does not apply
Environ. 7	Yes	Yes	Yes	Yes	Yes	I'll answer from the perspective of an ecological landscape designer (my trade/background)--I strive to use only native plants and their cultivars in my planting plans.
Environ. 8	Yes	Yes	Yes	Yes	Yes	
Industry 1			Yes	Yes	Yes	We are examining ways to develop products to help make consumers more successful with native plants.
Industry 2	Yes	Yes	Yes	Yes	Yes	We promote them when practical.

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Industry 3		Yes	Yes	No	Yes	The Landscape Design / Build industry began embracing natives some years ago.
Industry 4			Yes	Yes	Yes	N/A
Industry 5	No		Yes	Yes	Yes	
Industry 6	Yes	Yes	Yes	Yes	Yes	Many of the trees throughout golf courses and select plant materials around clubhouses are native to Long Island.
Industry 7	No	Yes	Yes	Yes	Yes	N/A

Questions 1-6: Analysis



Questions 7-10: Barriers to using native plants

Affiliation	Q7 (What do you think is the greatest barrier to using native plants in agriculture?)	Q8 (What do you think is the greatest barrier to using native plants on golf courses?)	Q9 (What do you think is the greatest barrier to using native plants in residential landscaping?)	Q10 (What do you think is the greatest barrier to using native plants in commercial landscaping?)
Advisor 1	Market interest from consumers	Cost and appearance	Aesthetic appeal and consumer interest	Aesthetic appeal and consumer interest
Advisor 2	The vast majority of food crop plants are not native. As mentioned above, any other practice such as cover crops would need to be vetted. For nursery production, consumer demand drives what nurseries grow. If demand for native plants increase, nurseries grow more natives.	Fear that players will lost their balls in plantings. Appearance of natives can sometimes be perceived as 'messy' or less formal.	People can complain about bees, 'unkempt' or 'messy' appearance, or lack of large flowers, or season-long flowers, or etc. Many natives will not stay compact or shear well, so can be challenging to use in small areas. Not all natives are appropriate for all sites - the 'right plant in the right place' always need to be considered, native or not. Additionally, it may be that a native plant may not be the best choice in a particular space.	Same as above.
Advisor 3	Misconception that native plants and gardens are "wacky, woolly grassy areas without pretty flowers." I personally have built some beautiful and floral raingardens that appeared to be ornamental, but also functioned as green infrastructure to mitigate stormwater.	Misconception that native plants and gardens are "wacky, woolly grassy areas without pretty flowers." I personally have built some beautiful and floral raingardens that appeared to be ornamental, but also functioned as green infrastructure to mitigate stormwater.	Misconception that native plants and gardens are "wacky, woolly grassy areas without pretty flowers." I personally have built some beautiful and floral raingardens that appeared to be ornamental, but also functioned as green infrastructure to mitigate stormwater.	Misconception that native plants and gardens are "wacky, woolly grassy areas without pretty flowers." I personally have built some beautiful and floral raingardens that appeared to be ornamental, but also functioned as green infrastructure to mitigate stormwater. Less of an issue with Commercial landscaping as a higher percentage of landscapers have some knowledge of natives and their use.
Advisor 4	The lack of knowledge about their use as ornamentals, their aesthetic features and their native adaptations which allow them to reduce nitrogen in our stormwater.	lack of knowledge	lack of knowledge	lack of knowledge

Affiliation	Q7 cont'd (barrier to native plants in agriculture)	Q8 cont'd (barrier to native plants on golf courses)	Q9 cont'd (barrier to native plants in residential landscaping)	Q10 cont'd (barrier to native plants in commercial landscaping)
Advisor 5	Market demand for native plants: Aesthetic preference for vibrant, flowering non-native annuals and perennials. Premiums/profit margins enjoyed by sellers on non-native species.		Market demand for native plants: Aesthetic preference for vibrant, flowering non-native annuals and perennials. Premiums/profit margins enjoyed by sellers on non-native species. Lack of consumer education.	Market demand for native plants: Aesthetic preference for vibrant, flowering non-native annuals and perennials. Premiums/profit margins enjoyed by sellers on non-native species. Lack of consumer education.
Advisor 6	Maybe availability	Perhaps the willingness of golf course landscapers to incorporate the look of native plants!	Lack of knowledge of what native plants can offer	same as above
Environ. 1	Demand for native plants is often not sufficient (or perceived that way) to make it worth the investment of the nurseries. But this goes both ways, the nurseries have a role to play in encouraging and promoting native plant use and alternatives to commonly used landscaping plants.	Although the turf has very definite requirements for strength, density etc., there is no good reason not to use native plants in the surrounding landscaping. Availability, cost, tradition and lack of willingness to change. Invasive landscape plants are so common that their use is perpetuated because that is what is expected.	Cost, availability, and knowledge about native/invasive plants. Much like McDonald's is cheaper than fresh fruits and vegetables, invasive plants are cheaper and more accessible than natives, but that makes no sense!!!	Cost, availability, and demand (not the standards thing that have come to be expected).
Environ. 2	Other than selling native plants to the public, there would be no marketable reason to grow native plants.		Often Native plants are not "showy" enough.	Probably availability. Native plantings have really taken off in commercial landscapes.
Environ. 3	The Industry sells what the public wants, and is allowed to sell by law.	Buy in from board and members-- but likely the easiest place to do so.... they have ... big budgets (relatively), professional staff, tools and equipment all on hand and time to do the work, in theory.	Most homeowners without professional assistance don't know what they are doing, native plants are not easily found or carried in nurseries or pushed by sales folks or by price.	Likely the ease and hardness of plants controls this use... ironically most commercial landscaping sounds like an assault of lawnmowers and leafblowers and edgers. It seems that most attention, irrigation, landscaping staff time and money is paid to the lawn. All other plantings, property care, appear to be an afterthought, and small.

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Environ. 4	Need to identify benefits of, for example, pollinators attracted to native plant borders/vegetated strips. For questions 7-9, a common term of reference for a native plant could be helpful. Here's the definition of native plants from Rick Darke and Doug Tallamy's Book (The Living Landscape): Native: a plant or animal that has evolved in a given place over a period of time sufficient to develop complex and essential relationships with the physical environment and other organisms in a given ecological community	Awareness and availability of appropriate plants at competitive prices. Market demands of getting customers out early and often. Native fescues can offer benefits.	Awareness and availability of appropriate plants at competitive prices. Need simple message. Why use native plants? (water less, resistant to bugs).	Awareness and availability of appropriate plants at competitive prices. Availability, visual appeal. Municipalities can develop lists of recommended plants for local commission development reviews. Example, Milford, CT. For new development, identify incentives to reduce/eliminate initial turfgrass installation.
Environ. 5	Changing public perspective and educating the public to understand and accept that landscape design, site and plant selection benefit the environment and human health. Shifting preferences from the manicured picture perfect English Estate lawn to a sustainable somewhat "natural" living space.	In the fairways and riparian zones there should be no problem in shifting to native plants. But for areas where ball roll is essential, you may be fighting a losing battle. Nature of the beast. Also, in the areas where the pro-shop and country club where the aesthetics are priority, you would need to change public perception and educate - in some courses. Funny, it seems the more exclusive courses market and are designed to accentuate the natural contours, flora and fauna. \$\$\$\$\$. Again educating and changing public perspective. Marketing the Audubon program	Same as number 7. I took landscape architecture in college and according to design courses people have a history to dominate over nature i.e. Bonsai, topiary, uniform lawn. It is farfetched, but think about the home gardener using every tool known to man to prune, edge, trim and saw. Also the time and money spent in chemicals, and lawn contractors. The public would need to be educated how native plants can be used aesthetically in their home landscape. And importantly, by choosing to plant native they can help balance the ecosystem. Again the public drives the market trend. Shifting perspective would create lawn companies to sell, plant and maintain more natives.	Shifting the public perception. Also becoming educated in the use of native plants and the benefits. Most important is how a landscape MAINTENANCE company can make a profit by installing native, sustainable landscapes.
Environ. 6	Low demand	replanting established vegetation and maintaining aesthetic appeal	unfamiliarity of homeowners to new landscapes	maintaining aesthetic appeal and replanting established vegetation

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Environ. 7	I'm assuming this refers to the nursery industry, and that would be the demand for native plants is not as high as the demand for more showy species. Most landscapers aren't familiar with their performance, and most landscape architects are not familiar with plant material in general.	Again, exposure and familiarity with plant material/performance/maintenance. The need to maintain highly-manicured areas around the clubhouse/driving range/other areas that are not the course itself could be a deterrent, because native plants are often seen (and can be) leggy/unruly. And, if one needs a windbreak, there are few good native evergreens (i.e. grow less than 50-60 ft. in height) in the northeast.	Preconceived notions about how a home on Long Island should look, and the availability of native plants at big box stores. Everyone does not have the exposure that horticulturists have to the variety of beautiful native plants (and cultivars, which I understand is an ongoing debate). Big box stores want to carry cultivars that they can sell, and there are few large nurseries that grow native plants alongside hydrangeas and privet...native plants are typically limited to smaller nursery operations, typically selling product for remediation and conservation projects, or the occasional sustainable commercial (e.g. LEED) or residential design project.	Preconceived notions about how a home on Long Island should look, and the availability of native plants at big box stores. Everyone does not have the exposure that horticulturists have to the variety of beautiful native plants (and cultivars, which I understand is an ongoing debate). Big box stores want to carry cultivars that they can sell, and there are few large nurseries that grow native plants alongside hydrangeas and privet...native plants are typically limited to smaller nursery operations, typically selling product for remediation and conservation projects, or the occasional sustainable commercial (e.g. LEED) or residential design project.
Environ. 8	Education--not enough knowledge about the benefits of incorporating native plants. I.e., to support pollinators, to help curb erosion, to attract beneficial insects and birds.	Education and the desire to have golf courses conform to a highly manicured appearance.	Education--getting homeowners to understand the benefits (drought-tolerant, attractiveness to beneficial insects and wildlife). Not as attractive as some annuals and other more exotic perennials.	Education--of landscapers who can then provide information to customers on the benefits of native plants.
Industry 1			Residential landscape plants are usually selected based on functionality and aesthetics. Sometimes native plants do not meet the desired needs of the land owner.	
Industry 2	Overall lack of awareness. Growers are reluctant to commit on a crop that might have a spotty demand.	Lack of awareness by golf course designers and superintendents.	Lack of awareness by general public on what native plants are and a terrible job of marketing by the nursery industry. Redbuds should be as common as cherry trees.	Lack of awareness by architects and builders and municipalities on why they should incorporate natives. Maybe a tax break on a project with a sliding scale in relation to natives used?

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Industry 3			Supply has been slow to develop and customer expectations are out of line with reality.	The exception of a commercial client for uniformity and long bloom is hard to meet with natives.
Industry 4	aesthetic		aesthetic - knowledge	same
Industry 5				
Industry 6	It's impact on the land being farmed	Golfer acceptance and the native plants impact on the turf	Presentation, cost and customer awareness	Presentation, cost and customer awareness
Industry 7	N/A	None, already being used.	They are often being used in certain situations.	Appeal and maintenance.

Questions 7–10: Analysis

