

THE SUSTAINABILITY

The 500 Hats of Sustainability

What is sustainable? It looks a whole lot like EarthKind™, but with an application that goes way beyond the landscape.

Sustainable is defined by one group as “not taking more out of the earth than you put back.” Another definition is “meeting present needs without compromising the needs of the future.” Sustainable is perhaps a kinder, gentler word than some of the environmental movement language of the past, but is it really different? *ANLA Today* put it succinctly in a headline, “Sustainability: Can It Last?”

In this issue we begin a series on sustainability. We introduce the topic this month, and in coming months we will take a look at how some TNLA members have made sustainable strategies part of their marketing success.

Overview of Sustainability Initiatives

The Sustainable Sites™ Initiative

According to its website, the Sustainable Sites Initiative is an interdisciplinary partnership among the American Society of Landscape Architects, the Lady Bird Johnson Wildflower Center, the United

the path to sustainability

1866

The word “ecology” was coined by the German biologist Ernst Haeckel.

1886

Audubon Society founded

1892

Sierra Club incorporated with John Muir as President

1969

National Environmental Policy Act passed and Environmental Protection Agency created. In this, the first major U.S. environmental legislation, Congress declared: “that it is the continuing policy of the Federal Government, in cooperation with State and local governments, and other concerned public and private organizations, to use all practicable means and measures, including financial and technical assistance, in a manner calculated to foster and promote the general welfare, to create and maintain conditions under which man and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of present and future generations of Americans.”

1948

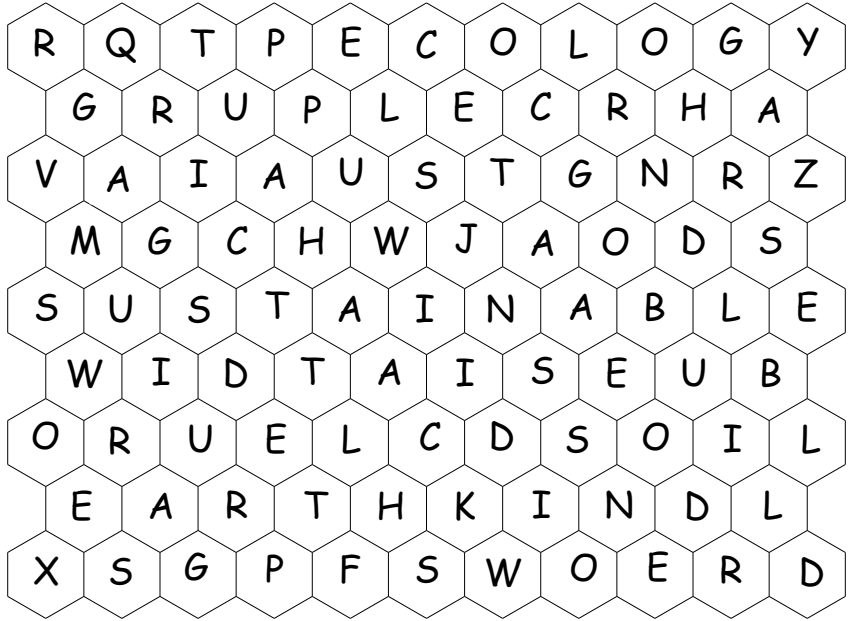
An atmospheric inversion in Donora held the town under a cloud of gas from the Donora Zinc Works. Twenty people died. Public outcry over the incident forced the federal government to begin studying air pollution, its causes, effects, and how to control it. This led to the Air Pollution Control Act of 1955, the ancestor of the Clean Air Act of 1970.

CONUNDRUM PART ONE

States Botanic Garden, and a diverse group of stakeholder organizations to develop guidelines and standards for landscape sustainability. (American Nursery and Landscape Association (ANLA) is one of the stakeholder groups.) The motivation behind this initiative stems from the desire to protect and enhance the ability of landscapes to provide services such as climate regulation, clean air and water, and improved quality of life. Sustainable Sites is a cooperative effort with the intention of supplementing existing green building and landscape guidelines, as well as becoming a stand-alone tool for site sustainability.

The Sustainable Sites Initiative (SSI) released a preliminary report of proposed standards and guidelines for comment and is currently in the process of reviewing those comments for next steps. ANLA reports that the sections addressing vegetation and people-plant interaction
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Sustainability Puzzle



In this puzzle are 12 words used in environmental initiatives of the past. To see the answer to the Sustainability Puzzle, visit www.tnlaonline.org.

<p>1962 <i>Silent Spring</i> by Rachel Carson published. The book alerted the general public to the dangers of pesticides, particularly the dangers to humans.</p>	<p>1970 Clean Air Act passed, greatly expanding protection began by the Air Pollution Control Act of 1955 and the first Clean Air Act The first Earth Day observation spearheaded by Sen. Gaylord Nelson of Wisconsin to focus attention on environmental issues</p>	<p>1973 Endangered Species Act passed</p>
<p>1972 DDT banned in U.S. Water Pollution Control Act passed</p>	<p>1978 President Carter declared an emergency at Love Canal alerting the country to the long-term, hidden dangers of pollution of soil and groundwater.</p>	<p>1985 Scientists report that a giant hole in the earth's ozone layer opens each spring over Antarctica.</p>
<p>2005 Kyoto Protocol came into effect</p>	<p>1987 The Montreal Protocol on Substances that Deplete the Ozone Layer is adopted to support the phasing out of production of a number of ozone-depleting chemicals.</p>	<p>1992 Hannover Principles Written</p>
<p>2008 Sustainable Sites Initiative published its first set of guidelines</p>	<p>1998 Leadership in Energy and Environmental Design (LEED) Green Building Rating System, developed by the U.S. Green Building Council</p>	

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will be of particular interest to growers and retailers. The entire set will be of interest to landscape design/build firms and landscape distributors. The report can be found at www.sustainable-sites.org. SSI plans to develop rating criteria for a project to earn certification as a sustainable site after they have finalized their guidelines and standards. The full report is a daunting 107 pages, but combined with a good index, a reader can find those areas of interest and not

spend too much time on the report. A Green Industry business wanting to know what is coming in the future will find understandable guidance in this document.

GreenScapes

GreenScapes is a program of the U.S. Environmental Protection Agency (EPA). It has components for homeowners and businesses, and offers an opportunity to join the GreenScapes Alliance. Alliance members' names are published on the website. A company or institution

can be a partner or an ally. Partners include companies, agencies, and others who, in joining the program, commit to undertaking a minimum of two GreenScapes activities. Allies include professional groups, trade associations, research organizations, and product manufacturers or marketers who, in joining the program, will work with their affiliated organizations to promote greater use of GreenScapes activities. Through the GreenScapes website, partners have access to consumer pamphlets, cost calculators to demonstrate to customers' long-term savings from sustainable products, and vendor sources for sustainable products. The GreenScapes website is www.epa.gov/greenscapes/.

EarthKind

The EarthKind program has been in place at Texas A&M University for many years, and its principles are in no way different from those of sustainable landscaping – only the names have been changed. The objective of EarthKind is to combine the best of organic and traditional gardening and landscaping principles to create a horticultural system based on real world effectiveness and environmental responsibility. EarthKind goals include:

- Landscape water conservation
- Safe use and handling of fertilizers & pesticides in the landscape
- Reduction of yard wastes entering landfills
- Landscaping for energy conservation.

EarthKind focuses more on research-based initiatives rather than guidelines. Materials to be used in support of EarthKind can be found on their website at <http://earthkind.tamu.edu/>. A new addition to their services is a blog, where the latest in EarthKind developments is announced and discussed. You can find the blog at <http://earthkindnews.blogspot.com/>.

Coming next issue: Focus on TNLA members who are employing sustainable principles in their businesses. ☺

the hannover principles

One of the guidelines for action is the sustainability cause, adopted by the designers preparing for the 2000 World's Fair in Hannover, Germany.

1. Insist on rights of humanity and nature to co-exist in a healthy, supportive, diverse and sustainable condition.
2. Recognize interdependence. The elements of human design interact with and depend upon the natural world, with broad and diverse implications at every scale. Expand design considerations to recognizing even distant effects.
3. Respect relationships between spirit and matter. Consider all aspects of human settlement including community, dwelling, industry, and trade in terms of existing and evolving connections between spiritual and material consciousness.
4. Accept responsibility for the consequences of design decisions upon human well-being, the viability of natural systems and their right to co-exist.
5. Create safe objects of long-term value. Do not burden future generations with requirements for maintenance or vigilant administration of potential danger due to the careless creation of products, processes, or standards.

6. Eliminate the concept of waste. Evaluate and optimize the full life cycle of products and processes, to approach the state of natural systems, in which there is no waste.

7. Rely on natural energy flows. Human designs should, like the living world, derive their creative forces from perpetual solar income. Incorporate this energy efficiently and safely for responsible use.

8. Understand the limitations of design. No human creation lasts forever and design does not solve all problems. Those who create and plan should practice humility in the face of nature. Treat nature as a model and mentor, not as an inconvenience to be evaded or controlled.

9. Seek constant improvement by the sharing of knowledge. Encourage direct and open communication between colleagues, patrons, manufacturers, and users to link long-term sustainable considerations with ethical responsibility, and re-establish the integral relationship between natural processes and human activity.

The Hannover Principles should be seen as a living document committed to the transformation and growth in the understanding of our interdependence with nature, so that they may adapt as our knowledge of the world evolves.

THE SUSTAINABILITY



Grass Roots Sustainability Practices

Last month we began the first in a three part series on sustainability with some background and definitions. This month we move to some very down-to-earth practices adopted by TNLA members who are making sustainability a part of their business model.

For some, sustainability has more to do with staying in business than with environmental issues. One reader took the trade publication *Greenhouse Grower* to task for their coverage of the issue. “Right now with the economy, drought, high fuel prices, soaring health costs, and insurance, it’s not sustainability anymore, it’s ‘SURVIVABILITY’...I’d just really like to know. Who the... came up with this word (sustainability) anyway? Had to be somebody who wears a suit, either high heels or penny loafers, and drives an SUV in the city to bolster their appearance.”

TNLA *Green* didn’t find such passionate responses from our members, but several did view sustainability from the perspective of managing to stay in business. These members suggested several definitions of sustainable:

- Able to continue in tough economic and environmental times

- Providing an income generation stream that allows one to then buy products for future sales
- The ability to have resources available to support your business.

For those who viewed sustainability from the environmental perspective we received definitions such as:

- Using products and methods that reduce the amount of non-renewable resources used to produce and market our product
- Least environmentally destructive
- Growing or producing products that maximize three areas of concerns: Profits, People and Pollution
- A practice that doesn’t use up or ruin the resources it requires. It can be sustained without degrading the environment.

For more definitions, visit the TNLA website at www.tnlaonline.org. Visit the TNLA blog at www.TNLAViewpoint.blogspot.com and cast your vote for your favorite definition.

Some members have a business model that fits right in with the concept of sustainability. Ron Hall, TCLP, TMCNP, of Ron’s Organics, Inc. in Mesquite, has a full service landscape contracting firm. As their name says, their niche is organic landscaping. In addition to their product choice, they recycle virtually all waste products, make their own compost, and reuse plant water.

Soil Building Systems in Dallas is a supplier of soil, compost, and mulch, Baron Albon says, “At SBS we use sustainable business practices to produce products that enable others to be “green.” Our raw materials come from green landscape waste and other natural sources that would otherwise be discarded in a landfill. We primarily sell in bulk to minimize wasteful packaging and we collect and re-use water that would otherwise run off into the storm systems. We continue with our green mission in our office by using electronic business management practices which allows us to minimize the use of paper.”

AgSci, Inc. of Dallas is another supplier member who has been in the sustainability business since before the word was coined. Their product mix includes organic animal repellent, biostimulants, nematode control

product, and soil conditioners. Because they have a unique product line, they consider themselves consultants and Derek Fell says they focus on customer education.

Dr. L. Marshall of Biosorb, Inc. in St. Charles, Missouri, sees their company as offering a product that enables others to carry out more sustainable practices in their own businesses by reducing the amount of chemicals growers need to apply.

Unlike most of our surveys, the sustainability survey produced more answers from growers than any other business category. Jon Pinkus of Nortex Wholesale Nursery says they try to create a general company culture in regard to sustainability. They use biodegradable pots, organic fertilizers, and select plant materials for their customers that enable them to practice sustainable gardening. They have also experimented with passive cooling techniques. Passive cooling refers to technologies or design features used to cool buildings naturally. This technology uses the principle of venting hot air as it rises, and pulling cooler air in to replace it. This method has been challenging, and Jon reports some of their structures have not worked well enough in the hot Dallas summers, but they continue the strategy.

Ellison's Greenhouses in Brenham is perhaps most famous for their annual Poinsettia Celebration and the fact that they are the only greenhouse in the nation with a Post Office on site. Ellison's tries to use organic products, but sometimes finds them cost-prohibitive. Other practices listed by PJ Ellison are recycling, using Integrated Pest Management, and mulching their own leftover wastes. They have adopted Best Management Practices that include sustainability as a goal.

Buchanan's Native Plants in Houston is another firm whose very definition seems to be in keeping with the concepts of sustainability. Native plants can require fewer inputs to thrive in the garden, less water, fertilizer, and herbicide. In addition to their general company culture, Donna Buchanan's company recycles paper, cardboard, and aluminum cans. They also recycle nursery plastic when they can, but that one is a challenge. In addition to offering organic products, they offer education to their customers by inviting in guest speakers.

On the other end of retail, Rick Neal of Home Depot 6548 also engages in customer education. He says he tries to help customers by giving them the right product for the job at hand.

Landscape contractors are much more at the mercy of a client's ideas than any of the other business categories, and practicing sustainability is more of a challenge to them. Still, Bob Buckner of Associated Landscape Services says it can be done. They focus on plant selection, site evaluations, and water management. They have also moved into the area of certified sustainability by working on several projects that are being restructured in accordance with LEED requirements.

Responses from the field tell us that some nursery/landscape companies reject sustainability as an untenable burden, some have made sustainability their business model, but most are gradually working activities that would be defined as sustainable into their business and cultural practices.

Next month we will wrap up our series with sustainability and how it actually looks in the landscape. ☺



"Our raw materials come from green landscape waste and other natural sources that would otherwise be discarded in a landfill."

Baron Albon, Soil Building Systems, Dallas



Practices include recycling, using Integrated Pest Management, and mulching their own leftover wastes.

PJ Ellison, Ellison's Greenhouses, Brenham



Engages in customer education by giving customers the right product for the job at hand.

Rick Neal, Home Depot 6548

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Commercial installation in a semi-arid area near Bastrop, Texas. Native wildflowers and trees maintained a rustic appearance, appropriate for the recreational area, and will survive the most challenging of Texas summers with minimal water or fertilization.

A Picture of Sustainability

In this third and final installment of our sustainability series, we take a look at what some landscapes that claim to be sustainable really look like.

The sustainability of a landscape is determined by many factors that can't be seen: watering systems, rainwater catchment, soil amendment, basic design in accord with the natural lay of the land, etc. Can a landscape look traditional and still be sustainable, or does it have to have a native, natural, or cottage garden appearance? Do we have to redefine our concept of beauty to adopt sustainability?

The Travis County Master Gardeners' Association, in cooperation with the

Travis County Texas AgriLife Extension Service, featured sustainable gardening in its annual Inside Austin Gardens Tour this April. With one exception, the gardens were designed and maintained solely by Master Gardeners. Most of the gardens selected represented life-long projects by the gardeners, and all incorporated features that are earth friendly, bio-diverse, and incorporate vegetable, fruit, or nut production in conjunction with beautiful flowers. There is very little expanse of turfgrass in any of the back yards, although they were not devoid of turf. However,

most of the designs featured paths and walkways among plants, often placed in raised beds, composting on site, judicious use of water systems, and many had rain barrel collection systems.

The Gani Family Garden is located in a normal Austin subdivision home. It included a set of 15,000-gallon water collection tanks, solar power panels, and drip irrigation. The garden included fruit trees, vegetables, and flowers, all organically grown.

In another, slightly more upscale setting, the Bakatsa family shared a garden that has been an 18-year project, and is still a work in progress. The garden includes olive trees from California and producing apple trees, espaliered in a French design.

The Bakatsa's mixed native plants with the exotic. Their garden also included solar panels on the roof, water collection in place, and compost bins.

Moving to truly upscale Austin, the tour visited the Stocker residence. This property is located near an exposed edge of the Balcones Escarpment and features natural native blue bonnets, along with on-site rocks and boulders that have been creatively integrated into terracing, walls, and beds. There are seven garden rooms, each with its own unique style, a vegetable garden with raised beds, and a greenhouse where annuals are begun each winter. This sustainable garden mixed native, organic gardening with select drip irrigation and extensive use of the natural rocks and hardscape within the garden design.

Landscape Architect Jo Ann Jarreau, ASLA, LEED AP, president of Jarreau Inc. in Houston, Texas, says she is very aware of how sustainability standards are affecting her design strategies. "In the past," she says, "rainwater was treated as a waste product, using large drainage systems that dumped water rapidly into creeks and rivers, causing flooding and erosion, and severely reducing the absorption of groundwater. This rapid runoff is often contaminated by the weed-killers and fertilizers used to feed and maintain installed landscapes, which has downstream effects on wildlife and recreation. And on the other side of the equation, high-quality municipal drinking water – in shorter supply all the time – was used to irrigate these human-altered gardens and lawns. Vegetated swales and filter strips both clean and slow down water runoff. This slowed water can be harvested and used in place of municipal drinking water in irrigation systems, fountains, and custodial applications. And water infiltration – to increase groundwater recharge, irrigate vegetation, and reduce

soil erosion – is a built-in feature of landscape plans by incorporating rain gardens and vegetated catchment areas to capture excess water."

Our informal survey seems to indicate that sustainability standards might be applied to a variety of garden styles. We started this project as a movement toward accomplishing several things: helping get some clarity to what we mean by sustainable landscapes, helping give nursery/landscape professionals tools they need to profit from the sustainability movement, and providing a place for nursery/landscape businesses to begin to take the lead in the sustainable landscape conversation. As we conclude this series, we move the conversation to the internet where

TNLA has established a site called **Sustainability Conflab**. It can be found at <http://tnlaonline.ning.com/>. On the Conflab* page you can read what TNLA has published about this issue, follow links to other resources, create your own page on the site, find out about or publish events, take part in or start a discussion forum, set up a conversation group, post photos, post video, and most importantly, invite other people to take part in the conversation.

Here's how we see it: If Green Industry businesses want to lead rather than

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* What is a conflab?

A conversation; a discussion; talking about stuff.

Our informal survey seems to indicate that sustainability standards might be applied to a variety of garden styles.



Rainwater collection systems are an integral part of sustainable designs.



A sustainable landscape makes appropriate use of turf, avoiding areas close to large expanses of sidewalk or driveway and allowing permeability when possible.

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follow the public perception about sustainability, we have to engage the public in conversation with us. The cost-effective way to do that is to invite the most interested people, the ones with gardens or landscapes and who are users of the social networks on the internet, to join the conversation. Every TNLA member will be invited to sign up for the Sustainability Conflab. That's about 1,700 invitations. If every one of those members invites every one of their customers, and their friends, and their social circle, and each of them invites their friends, and customers, and social circle, the information and

conversation on the site will expand with virtually no financial investment on anyone's part. All it will take is a willingness to participate. On this site, you get to pick if you want to be notified when information is posted, there will be no automatic sending of hundreds of spam messages to your email. Please note: there are advertisements on the site. That's how the Ning can offer this service to us at no cost.

TNLA policy has long been that it is the responsibility of members to manage their own marketing and relationships with the end user, and that TNLA does not have the resources to engage

in consumer promotions. TNLA can, however, provide the resource, the tool, the central gathering place to help enable members to do what they do best, share good horticultural knowledge. That's what the Conflab is about.

You may be thinking, "I have my own web site, why would I want to bring my customers to a site where they might find my competitors?" Your editor just took a car to the Toyota dealership on the Motor Mile in Austin. Every car manufacturer is represented in this cluster of dealerships. In fact, dealers who tried to stay in secluded areas were forced by the manufacture to relocate to these cluster areas. What is true for cars might be true for informational sites on the internet as well. Online networking is worth a try, and the price is certainly right! Please take a few minutes to visit www.tnlaonline.ning.com/ and join the Conflab. ☺

... If Green Industry businesses want to lead rather than follow the public perception about sustainability, we have to engage the public in conversation with us.