LONGEVITY





Longevity

Doing well by doing good—the key to longevity

everal years ago at Ball we added "Grow a Green Future" to our Pillars of Growth corporate goals, and we've been working to live up to it ever since. We believe that Grow a Green Future refers to sustainability and much more. It's about creating a business strategy that's both green and capable of carrying us for the long term. It's about inspiring and helping our customers do the same. Over the past decade, all across the company, we've asked our employees, our teams and our managers to incorporate into their operating plans ways to save energy, conserve water, reduce waste, restore natural habitats, promote sustainable certification, reduce the environmental impact of plant production and innovate Earth-friendly plant packaging. Oh, and by the way, keep our businesses operating profitably. No small tasks!

In this, our second such report, we share the stories and celebrate the environmental and social achievements of the Ball Horticultural Company employees and our many partners and suppliers whose products we represent. We have strived to ensure that our company's presence in countries around the world has a positive influence on the people who work for us, their families and the communities in which they live. Our Pillars of Growth guide us to live the philosophy generally attributed to Ben Franklin, "doing well by doing good," and that has stood us in good stead since my grandfather founded the company in 1905.

However, as I acknowledged in our previous report, we can do more! Please send your ideas, comments and suggestions for how we can continue to Grow a Green Future to me at aball@ballhort.com.

Ball Pillars of Growth

- Color the world
- Create excitement in the world of flowers
- Always be the first choice for service
- Improve our cost position
- Grow a green future

ANNA CAROLINE BALL
PRESIDENT & CEO
BALL HORTICULTURAL COMPANY





Anna welcomes you to read our Sustainability Report http://youtu.be/2Wq3HVJRcBo

□ TABLE OF CONTENTS

Sustainability at Ball



CERTIFIED LEED



EFFICIENCY



LED TECHNOLOGY



SOCIAL RESPONSIBILITY











POLLINATOR SUPPORT



BIODEGRADABLE



HUMAN NUTRITION



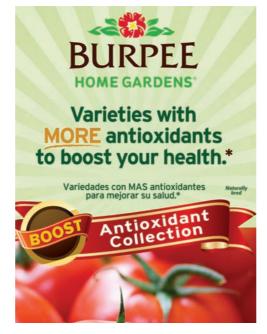
SUSTAINABLE PLANT NUTRITION



LESS WATER & FEWER CHEMICALS

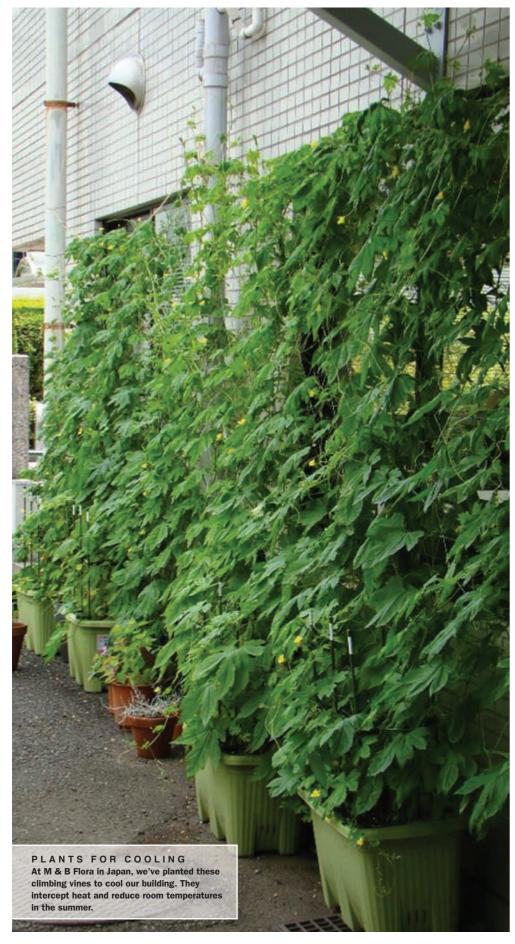












■ INFRASTRUCTURE

Building Green

Every new building and every remodel is an opportunity to improve

CHARTING A SUSTAINABLE PATH IS A CHALLENGE WHEN YOU HAVE MORE THAN 30 LOCATIONS IN 18 COUNTRIES, WITH 3,000-PLUS EMPLOYEES. Each of our locations has its own ecology and its own culture, and we rely on our employees on-site to build a sustainable future from the ground up. Literally.

It starts with the facility itself, and we're especially proud of three new facilities that are going above and beyond:

- The LEED-certified (pending) Ball Premier Lab, West Chicago, Illinois
- PanAmerican Seed Research Facility, Guadalupe, California
- Las Limas Ball FloraPlant, Estelí, Nicaragua

Our Goals

- 1 A healthy environment for employees.
- 2. Improved plant and cutting quality.
- 3. Productivity enhancements.
- 4. Cost savings (energy, inputs, etc.).
- 5. Reduced environmental footprint.

A LEED-certified facility (pending)

The Ball Premier Lab

When we decided to upgrade the Ball Premier Lab facilities in West Chicago, we set a high standard for ourselves. We wanted the new building to be LEED certified, a prime example of ecological and efficient design. The building team exceeded even their own expectations.

The state-of-the-art facility is where we pellet, coat, prime and test seed germination for PanAmerican Seed, Ball Seed and contract customers. While seed is the focus inside the lab, it is sustainable design and energy efficiency that make this building something more.

Our design allowed for the following:

- 18% less energy used
- 30% less water used
- Building with 20% recycled materials



Click here to learn more about LEED http://new.usgbc.org

What is LEED?

The U.S. Green Building Council administers the Leadership in Energy and Environmental Design (LEED) certification. They provide independent, third-party verification that a building, home or community was designed and built using strategies aimed at achieving high performance in key areas of human and environmental health: sustainable site development, water savings, energy efficiency, materials selection and indoor environmental quality.

- 80% of all construction waste recycled
- Storm water management
- Water-wise landscaping

The Ball Premier Lab tackled everything from energy use to reducing water usage and utilizing landscaping to its maximum benefit. Here are a few of the features we incorporated into the building to achieve our LEED certification.

- Bike racks and showers to encourage non-auto commuting.
- Prime parking for low emissions vehicles.
- Storm water control to meet the strictest standards in the country.
- Three tanks that can store 18,000 gallons of rain water from the roof to supplement garden irrigation.
- Landscaping that reduces the heatisland effect.
- Landscape with native and low water use plants; no potable water used for irrigation.
- Reflective surface on roof reduces the heat-island effect.
- Plumbing fixtures use 30% less water than code requirements.
- Insulation of building shell.
- Design of heating/air conditioning system with zone control and natural ventilation in many areas.

- Design of windows and sunshades to minimize summer sun and maximize winter heat gain.
- Design of skylights and interior lighting for employee comfort and energy reduction.
- Audit of all systems to validate their performance.
- All refrigerants non-ozone depleting.
- 10% of building materials manufactured or fabricated within 500 miles.
- All wood certified by the Forest Stewardship Council.
- Air tested for VOC (volatile organic compounds) and dust before occupancy.
- All interior materials have "low VOC." □







Tour the Ball Premier Lab with GrowerTalks Editor Chris Beytes. http://youtu.be/HvCKVBIIvWs

From Turf to Biodiverse Habitat

Three years ago, we started a massive landscape makeover at our West Chicago headquarters. We removed our turf grass, and we installed bioswales and rain gardens to slow water runoff. Tanks were installed that can hold 18,000 gallons of rainwater for landscape irrigation. We've also planted 22,000 native, prairie and savannah plants. Ecological consulting firm WRD Environmental designed the new sustainable streetscape and gardens with plantings that provide more ecological diversity; require less water; and showcase annuals, shrubs, trees, natives and perennials to make our landscape more interesting and reflect Ball's broadening portfolio of products.

This new sensibility in landscape design moves beyond beauty and exemplifies how our landscapes are really about ecology. They provide habitat and food for bees, butterflies and animals and they manage water in a natural way. For Ball, this means customers and consumers will want different plants and will use them in different ways. It's easy to see how this will directly impact our future product assortments.

■ INFRASTRUCTURE

Reliable Heat

In Japan

A leader in sustainability, our M & B Flora in Kobuchizawa has been MPS certified since 2008. At both of our production facilities, we've found reliable, sustainable heat sources.

At our Chiba facility, we cooperate with a neighboring business that incinerates local household garbage. We use the waste heat generated from their facility to heat our own greenhouses. And at our Yutsubo Oita facility, we can harness the natural heat of the earth, by heating our greenhouses with the help of a local hot spring.

Tracking Energy Consumption

In England

Reducing energy spending without reducing productivity is good for any company's bottom line, and it's also good for the environment and for our customers. It makes us leaner and more efficient. That's certainly the case at Bordon Hill Nurseries, our young plant producer in England. Since 2005, they've been tracking energy consumption and using the data to implement measures for reducing heating and electrical power use. From 2005 to 2010 they had met the combined energy saving goal of 2.5% set by the Department of Energy and Climate Change. This year, Bordon Hill decided to set an ambitious goal for itself of 5% energy reduction, based on their three-year average consumption from 2008 to 2011.

As a result of their energy reduction measures and studious weekly tracking, Bordon Hill was able to achieve an overall energy reduction of 12.8% over their target, which translated into reduced energy costs of 7.6%. This is significant savings considering the high costs of heating and operating greenhouse facilities.



Guadalupe PanAmerican Seed-Research Facility

Where shade, sun, insulation and lighting all work together

When we designed our Guadalupe, California facility, which officially opened for occupancy in October 2012, our goal was to construct the most efficient R&D facility possible. We were committed to paying close attention to the little details that would save energy and improve our overall footprint. Here are a few of the features that helped us make this new building a more efficient and sustainable operation.

- When the old seed mill building was demolished, we recycled our old hard rock maple floor, refinished it and installed it in the new lobby.
- High-efficacy lighting fixtures with occupancy sensors and bi-level switching.
- Phillips Red/Blue LED light fixtures in tissue-culture rooms reduce energy usage.
- Large, high-efficiency windows with high-performance glass capture natural lighting, and keep cool air in and hot air out.
- Light control system for the entire building.
- Multi-zone, 98% efficiency HVAC systems with programmable thermostats and energy management controls.

- Additional insulation in all walls, ceiling and roof areas.
- High R-value insulation and thermally broken structural elements in the seed storage room reduce both equipment and energy needs.
- Roof and fascia overhangs shade windows and walls from direct sunlight in summer months.
- Carpeting is 100% recyclable and contains recycled carpet components.
- Solar energy cells were installed on the entire roof of the tractor storage building. We calculated this will supply up to 80% of our daily electrical energy use in the new building. □

Did You Know?

We use LED light fixtures because they are longer lasting, more energy efficient and run cooler than traditional fluorescent light fixtures. Because they generate less heat, we use less energy cooling the tissue-culture rooms.





GUADALUPE PANAMERICAN SEED

Our rebuilt Guadalupe breeding station office sports a design dubbed "Where farming meets science." Ball acquired the facility in 2001 with the purchase of Waller Flowerseed Company.

Anna Ball cut the ribbon to dedicate the building on October 26, 2012.



NICARAGUA

Las Limas

Ball's newest (and most efficient) facility

Starting with a blank sheet of paper has allowed Ball FloraPlant to design for superb cutting quality, maximum efficiency and minimum waste.

It's not just a blank sheet of paper, it's a whole new country: Nicaragua. This is where we are building a new Ball FloraPlant (BFP) facility dedicated to vegetative cutting production. As far as we know, it's the first greenhouse facility built in this Central American country by any international propagator.

Starting from scratch, and using years of previous experience as a guide, has allowed us to design a facility that balances optimum cutting quality with maximum enviornmental efficiency and a minimum of waste—of labor hours and inputs.

"One of the nice things about building a facility from scratch is that you can think about things like sustainability now," says BFP general manager Al Davidson. "All the decisions we're making as we design and put this facility together are trying to link to the best sustainable methods, without sacrificing quality. Quality cuttings are the number one priority."



Water recycling system at Las Limas is state-of-the-art, providing both excellent crop irrigation and nutrition, and environmentally sound water management.

Some of the key staff who helped get Ball FloraPlant's new Las Llmas production facility up and running. Left to right top: Fernando Solano, Michel Li Puma, Mario Pichardo, Hans Barendse, Roberto Lara Left to right bottom: Sabrina Samayoa, Lesia Carcamo, Grace Williams

Why Nicaragua?

Al and his team selected Nicaragua for its favorable combination of climate and labor. Day and night temperatures average about 7°F (4°C) higher than Costa Rica. Ideal temperatures combined with high levels of sunlight should yield high production. The property is located in a level agricultural area about 800 m (2,625 ft.) above sea level.

As for labor, Nicaragua is the second-poorest country in the Western Hemisphere, with an economy based primarily on agriculture (coffee and tobacco, mostly), so there are plenty of quality agricultural workers available and eager to learn new skills.

But what about politics and security? Many may remember the almost-daily news from the 1980s of CIA-backed rebels fighting the Sandinistas in Nicaragua. However, that socialist regime ended with the defeat of the Sandinistas in the general election of 1990. Today's Nicaragua is a stable democracy, and the government is expanding the economy by encouraging industry and tourism.

The facility

Nicaragua is located between Honduras and Costa Rica, and Las Limas is in the northwest near Estelí, the country's third-largest city (about 119,000 residents). Estelí is right on the Pan-American Highway, for easy access to the airport. The name Las Limas comes from a citrus fruit that is grown in the area.

We purchased about 100 acres of land, upon which we'll build 40 to 45 acres of greenhouses in several phases. Phase 1, which went into production for the 2012-2013 season, covers 11 acres.

Poly-covered greenhouses were supplied by the Spanish company Asthor. Gutters soar to 18 ft.; the arch is 26 ft. above the ground, giving a large air mass for a consistent, optimum environment. The houses are naturally ventilated and are equipped with four stages of heating, ventilation and shade, giving our growers the flexibility to create and maintain optimum conditions at the bench level. Additionally, all openings are screened for pest exclusion.

Water recycling and conservation are a major emphasis at Las Limas. Stock plant production will be in raised hydroponic troughs holding plastic tubs filled with volcanic rock, which can be sterilized and reused. The fertigation system runs through a modern gutter and pipe system to allow reuse of the nutrient solution without runoff into the environment, saving water and fertilizer.

One unique feature of the facility is that it is completely enclosed. Once workers pass through a thorough sanitation procedure and enter the greenhouse, they don't have to leave again during the day, as all walkways and corridors are enclosed. This reduces the risk of introducing pests or pathogens and allows cuttings to be moved quickly from the greenhouses to the coolers via bicycles.

Yes, that's right, bicycles. In most offshore facilities, you wait for trucks to make the rounds, but workers at Las Limas will use bicycles to transport cuttings between the greenhouses and the coolers, speeding up the beginning of the cool chain and minimizing stress on the cuttings. □







COMMUNITY AT LAS LIMAS

One important aspect of sustainability is, of course, community. We hired more than 200 local workers to help with construction and the opening of the facility, and expect to hire another 200 or more once full-scale operations begin. These are good-paying jobs, with numerous benefits, both tangible and intangible, that help improve the quality of life of our employees—up to and including a baseball diamond and equipment for the staff's daily lunchtime baseball game. (After all, baseball is Nicaragua's favorite pastime.)



Explore our facility in Nicaragua http://www.ballfloraplant.com/laslimas

SUSTAINABLE SUPPLY CHAIN

Our Partners in Sustainability

We're committed to a more sustainable supply chain. That means we're doing everything we can to improve processes in our facilities. It also means we use suppliers who have the same sustainable ideals.

Everyday, increasing numbers of consumers and businesses make conscious efforts to buy products that are manufactured in a safe and eco-friendly manner. This demand is fueled by a number of environmental and social concerns. In response, scores of governments and non-governmental organizations have created environmental certification programs intended to establish objective standards to guide consumer purchases.

Commercial plant growers are fortunate to have a variety of independent and government-sponsored certification programs from which to choose for assuring the sustainability of their businesses. These certification organizations work with flower farms, wholesale greenhouses, breeding companies and allied suppliers globally to determine compliance with environmental practices. While certification does not always guarantee superior quality, growers

who endure the rigors of getting certified have been required to scrutinize their crop production processes, the products they use and dispose of, their environmental procedures, and under certain programs, their employee and community relations programs.

We believe that many of our wholesale customers will seek to improve the eco-status of their businesses and the products they produce by purchasing grower inputs form certified sources. Several of our owned cutting and plug production facilities around the world are already certified and others are beginning the process. Many of the suppliers that produce plugs, liners and unrooted cuttings for distribution by Ball are part of our Certified EcoSource Network,

and more are considering the benefits of

MPS (Milieu Project Sierteelt)

This Dutch-based international certi-

fication program is used by more than 50% of European growers and an increasing number of operations around the world, including North America. Their MPS-ABC environmen-

tal certification evalutes energy, water, pesticide and fertilizer useage; waste and social issues. Opera-

tions submit monthly data and are

graded accordingly.

becoming certified.

Certified Ball Facilities

MPS Certified

Ball Century Horticultural (China)
Floricultura S.A. (Guatemala)
Linda Vista S.A. (Costa Rica)
M & B Flora (Japan)
PanAmerican Seed, Lompoc (U.S.)
PanAmerican Chile (Chile)

Nursery Accreditation and Eco Hort Accreditation* Ball Australia, Pty, Ltd.

BOPP (Grower) and LEAF certification

Bordon Hill Nurseries, Ltd. (UK)

LOHAS

Korea-American Seed and Seedling (Korea)

Veriflora

Ball Tagawa (U.S.)

SCORE

Ball Colombia (Article on page 15)

Our Certified Suppliers

D.S. Cole Growers (U.S.)-MPS Certified

Devan Greenhouses (Canada)– British Columbia Environmental Farm Plan

Dickman Farms (U.S.)-Veriflora Certified

George Sant & Sons (Canada)-MPS Certified

Pacific Plug & Liner (U.S.)-MPS Certified

Peace Tree Farm (U.S.)-USDA Organic

The Plug Connection (U.S.)-USDA Organic

Timbuk Farms (U.S.)–MPS Certified

Van De Wetering (U.S.)-MPS Certified

Welby Gardens (U.S.)–MPS Certified, USDA Organic



George Sant & Sons, Kleinburg, Ontario, Canada, has earned MPS Certification. Left to right: the Sant brothers, Dan, Rick and Ron.



Find out more about our EcoSource program and our supply chain partners http://www.ballhort.com/Growers/EcoSource.aspx

^{*}Both of these come from NIASA (Nursery Industry Association of Australia)

Linda Vista

Cartago, Costa Rica

At Linda Vista, we take a holistic approach to people, plants and the environment. It's part of being a strong link in a more sustainable supply chain. Employees work at everything from recycling to production systems and scholarship programs to improve processes, opportunities and the environment.

A few of the things we've implemented:

- Linda Vista supports it's own "Paint It Green" recycling program, which also donates money to schools.
 (See page 16)
- An MPS certification.
- Software to reduce internal paperwork to save trees.
- Installation of automated irrigation systems to save water.
- Employee personal and professional enrichment programs.
- Free on-site healthcare.
- Subsidized dental care.
- The new Earth Keepers Program for school children. (See page 16)



Celebrating achievement at Linda Vista.

Ball Straathof

Johannesburg, South Africa

In South Africa, our team at Ball Straathof made a big decision to move away from expanded polystyrene trays in favor of recyclable polystyrene plastic trays to reduce waste. This streamlined production efficiency since we now only grow in one kind of tray. The move also served our customers in South Africa, where companies are becoming more aware of their footprints and are trying to ensure that suppliers are as green as possible. Recyclable trays are just one of the ways we meet our customers' needs.



PanAmerican Seed/Kieft Seed

Venhuizen, The Netherlands

At our research and development facility in Venhuizen, The Netherlands, our employees and facilities employ everything from pedal power to high-quality "tuned" (germination certified) seeds to maximize output and improve efficiency. All the while, our breeders work with the goal of developing plant varieties that allow our customers to also use fewer resources.

A few of the things that make this facility tick:

- We use bicycles to get around the facility.
- We use natural predators to control pests and natural pollinators to pollinate.
- We utilize local suppliers as much as possible to reduce transportation costs.

- We collect and reuse rain water.
- Our goal is to breed varieties that can be grown at lower temperatures and that use fewer plant growth regulators (PGRs).

SUSTAINABLE SUPPLY CHAIN

Germination expert Willem Koopman spent four years trialing LED light technology in order to get superb results in the germination chamber.





Peter op den Kelder and Noortje Bronner release bees, used for natural pollination, at PanAmerican Seed/Kieft Seed, The Netherlands.



Our PanAmerican Seed facility in Lompoc, California, received its MPS-A environmental certification in 2011. Here, we rely on extensive soil sampling and drip irrigation in the fields to maintain optimum growing conditions and protect the ecosystem.





Margot de Vries and Jorrick Nauta check plant progress in the growth chambers.

Lighting with LEDs

Our germination expert Willem Koopman spent four years working with Philips and trialing LED light technology for our germination testing chambers, which are used to evaluate the quality of seed lots. Now, we've invested in more than 7,000 LED lights at PanAmerican Seed/Kieft Seed in Venhuizen, The Netherlands.

From an energy efficiency standpoint, LEDs last 10 times longer than standard fluorescents. The return on investment for LED lights is less than three years. But it's also a production quality decision. We've found that LEDs speed up rooting time and plant growth, and they give us a more consistent product. This light system in the germination chamber generates less heat, which also translates into seedlings needing less water, as they don't dry out as quickly.

So while the 30% cost savings on our energy bill is important, it also means our customers get the highest-quality seeds possible.

Floricultura

Guatemala City, Guatemala

Floricultura was the first Ball company to receive MPS certification, in 2004. We're constantly tweaking and trialing in order to gain a slight edge. Sometimes, it's big, like the new irrigation system we installed. But sometimes, it's those little production changes that make the difference.

Here are a few of our successes from 2012 that are making us leaner and more sustainable:

- Vacuuming helps to control insect populations and break the insect life cycle, thus reducing the chances that pests will develop pesticide resistance. Also, some pesticides if applied improperly, can burn foliage reducing plant performance, which could negatively impact seed yield. Vacuuming is an important pest control measure for reducing our dependence on pesticides.
- We started adding 15% coconut fiber to our volcanic sand media (again, for seed production), and found we reduced water and fertilizer by 22% and got a better yield. This was based on grow trials, and now we're trialing 10% coconut fiber with the geraniums.
- We installed an automatic irrigation system that's reducing our water runoff and reducing the total amount of water and fertilizer used by 20%. We figure a return on investment in less than two years.
- With our geraniums, we found we could reduce our fertilizer by 25% without affecting plant quality.
- We moved geraniums closer together, and by increasing the density of compact varieties by 10%, we actually increased our productivity per square meter.

Ball Colombia

Santafé de Bogotá, Colombia

For the past year, Ball Colombia has taken a systematic approach to their sustainability goals by utilizing the International Labour Organization's SCORE program (Sustaining Competitive and Responsible Enterprises). The initial focus is on improving production processes, improving the workplace and reducing our impact on the environment. Intrinsically, by reducing our environmental impact, we can affect the entire community's welfare.

We have an improvement team, made up of Ball Colombia employees, who take it upon themselves to identify and prioritize improvement needs. We're putting our heads together to improve productivity, constantly increase quality and make our production more environmentally friendly, all under the best of working conditions. As part of the SCORE program, we also receive training and guidance along the way. We're a year into the program, and we're excited to see where it takes us.

In the end, it will make us more competitive as a company, and it will make the community more sustainable as well.



100%

Envio Verde Boxes

Dave Pruitt, general manager of Ball Tagawa Growers in Arroyo Grande, California, collaborated with Pacific Packaging to create the Envio Verde box, a greener shipping box that stacks on a pallet, holds up to the load, and can still be recycled.

It's a stackable system for pallets that translates into less waste and more efficient transportation. Ball Tagawa uses them to ship woody ornamentals, shrubs and some perennials. While most heavyduty boxes used for shipping heavy ornamentals contain a wax that makes recycling the boxes impossible, Envio Verde boxes are made from 100% recyclable material. They're designed to carry heavy loads and are specially treated so that water can't penetrate the box too quickly.



Learn more about SCORE and their work with small and mid-sized companies around the world http://www.ilo.org/score



Teaching Children to Protect the Land

Our Linda Vista employees in Costa Rica developed a unique new program in 2012 called Earth Keepers to help children ages 10 to 12 years old who have emotional disorders. They're developing a curriculum that stimulates the kids' interest in the environment and teaches them the importance of protecting their environment. Our hope is that these children will themselves become ambassadors of environmental protection in Costa Rica, and that their knowledge will permeate their families and community. \square

SOCIAL & ENVIRONMENTAL STEWARDSHIP

Giving Back to our Communities

Doing well by doing good

You can't be a world-class company without a team of outstanding employees and a supportive community. When we talk about a sustainable future, it starts with the understanding that the environment, our employees, our communities and our financial health are intricately linked.

We believe in letting employees drive sus-

tainability efforts, and we also believe in investing in their futures.

Each location is different—a different environment, a variety of nuances to every-day life and needs, and that means each of our locations has to do what's best for their employees, their communities and their ecosystem.

I Can Grow

Our "I Can Grow" program, sponsored by Burpee Home Gardens, has been installing school and community gardens and donating plants for the last two years, reaching out to new communities and demographics. When we showed up at P.S. 323 in Brooklyn, New York, this past spring, we considered it a privilege to be the ones helping the underserved Brownsville neighborhood install one of the largest school gardens in New York City.

Part of our mission is to introduce a new generation of gardeners to fresher, more nutritious food. We've developed the program to help communities in the U.S. connect and live healthier lives, and to foster environmental responsibility.

In 2012, three grand-prize winners received a complete garden installation by our team and three runners-up received 500 vegetable and herb plants for their projects. The winners were P.S. 323, Brooklyn, New York; Islands High School,

Savannah, Georgia; the Village of Arts and Humanities, Philadelphia, Pennsylvania; City of Houston WaterWorks Education Center, Houston, Texas; Urban Youth Impact, West Palm Beach, Florida; and Pleasant Ridge School Foundation, Cincinnati, Ohio.

The "I Can Grow" program is based on the Four Es:

Education: teaching through community and youth gardening projects. Educators are given free guides and curriculum, developed by the National Gardening Association and Burpee.

Eating better: learning where food comes from and understanding the benefits of fresh vegetables and fruits in your diet.

Environment: home-grown food production reduces food's carbon footprint.

Economy: supplement your food bill with your vegetable garden and save money. □



Learn more about this program at http://www.burpeehomegardens.com/ ICanGrow





When Linda Vista employees recycle, they're rewarded with prize money, but the real winners are the children in the community. Proceeds from the recycling are donated to local schools.

Costa Rica

In Costa Rica, we're particularly proud of how Linda Vista has risen to the challenge to create a green future. Just a few of the amazing things our Linda Vista team has implemented:

- Our Human Talent Development program awards scholarships for Linda Vista employees to go to school for technical training or university courses.
- We also provide internal training sessions such as personnel management and greenhouse production efficiency.

- On-staff doctor and nurse provide free health care.
- On-site dental care, with employerassisted payment plans.
- The Earth Keepers environmental education program.
- A scholarship program for employees' children that rewards academic performance in both elementary and high school.
- Clean-up efforts in the local streets and parks.



Paint it Green

At our Costa Rica facility, the Linda Vista team developed their own recycling program called "Paint It Green." The goal is environmental protection with social projection. It started with an awareness program for employees to raise public consciousness about the importance of protecting the environment. Then we put it into action.

The "Paint It Green" program encourages us to recycle plastic, cardboard, scrap metal, electronics and glass. We even found a way to recycle old fertilizer containers. As an incentive, we offer prize money to employees for their committed

efforts. Since we earn money from the recycling, all the money we raise either gets donated to schools in the community or gets funneled back into the "Paint It Green" program.



■ SOCIAL & ENVIRONMENTAL STEWARDSHIP



(Below) Donated plants and gardens benefit children in the Nextep program.





Enjoying the fruits of labor.

Patients gardening at the Ibaraki university hospital.

M & B Flora Co. Flowers in the Schools—Japan

We produce plants that are healthy for the body, the spirit and the brain. Research has documented the benefits of plants in schools, hospitals, low-income communities, public spaces and so on. One of our favorite ways to help our communities is to donate plants. There is a 15-year tradition of community planting projects at M & B Flora Co., our distribution partner in Kitakoma-gun Yamanashi, Japan.

Schools. For 15 years, employees have been presenting flower pots to every stu-

dent at local schools. It began with a single elementary school, Kobuchizawa, and today we proudly share the beauty of our plants with all 40 elementary schools and preschools in Hokuto City.

Welfare facilities. In 2010, M & B Flora began donating plants and helping with the planting of flower beds at welfare facilities in Ibaraki prefecture. One of the special projects we support is a program called Nextep in Kumamoto, which provides a second chance at schooling to truant children.

Hospitals. Flowers and gardening have also become part of the healing process at the daily care facility at the Ibaraki university hospital, where donated plants provide therapy and picturesque gardens.

Public spaces. Twice a year, our employees pitch in to plant flower beds in the town of Kobuchizawa. □



Teaching for the Future *At Ball Chile*

Part of growing a greener future is educating the next generation, and at Ball Chile, we started partnering with a technical institute in our area in order to provide four-month internships to students who spend three days in the classroom and two days working in our company.

We give each student a mentor, who organizes their duties and makes sure every student learns as many different roles as possible. While we aren't required to compensate students, we choose to pay them a salary for their work.

We consider the internships to be an important part to every student's learning process, and it's also important to our own staff. Everyone here is proud that three of the students are daughters and sons of our employees, all of who have been ecstatic to see their children integrated into the working world with degrees. \square

Recycling Electronics

In West Chicago

Each year, coinciding with Earth Day, our West Chicago, Illinois, employees work with Vintage Recycling to collect and recycle old electronics. This past year, we collected more than a ton of material in just two weeks.



Here's what we've recycled since 2010:

²⁰¹² 2,176

²⁰¹¹ 1,646

²⁰¹⁰ **4,440**



Presidential Citation

At Korea-America Seed and Seedling

Si-Bok Kim of our Korea-America
Seed and Seedling in Gunpo City,
Korea, accepts a Presidential Citation
medal from the Korean government
for his contribution to the floriculture
industry. Si-Bok was instrumental in
creating a month-long event called
Floritopia, which commemorated the
restoration of a former oil spill site
with a public festival of flowers.





SOCIAL & ENVIRONMENTAL STEWARDSHIP



Paperless Costs

We love the benefits of going paperless. However, there are a few associated challenges. Here's what we learned:

- As with paper storage, we must consider how long we must retain documents.
- We will be exchanging paper file cabinets for increased data storage and will need to invest in tools to manage all of this.
- We need to invest in expanded storage, backups and disaster recovery.
- We must invest in increased network/internet speed and capacity.
- We must continue to update policies and procedures to make sure electronic data storage is efficient and safe.
- Replacing paper-based procedures requires thought and coordination, they don't just happen. Expect some resistance to change.

Technological Solutions

Harnessing technology for the better at Ball

We often turn to technology to help us reduce our environmental impact, reduce energy related spending and drive operational efficiencies throughout the company as well as our supply chain.

- We implemented Ball WebTrack, our online ordering system that offers customer convenience and reduces paper use.
- We use video conferencing tools to reduce travel.
- We invest in energy-efficient computers, servers and monitors.
- We revamped our computer room with fewer servers to minimize heating, cooling and power requirements.
- We initiated a number of new systems to reduce paper while improving customer service.

Going paperless. At Ball we believe in "Growing a Green Future." This is not only desirable to help our environment, but it is required for Ball to be the easiest to do business with in the industry. We harnessed technology to develop paperless initiatives that reduce printing and mailing of paper documents. Not only are we using less paper, but in many cases our customers are happier because the information is more timely, more accurate and requires less labor to file and search for documents.

Our customers and suppliers. Now, our customers and suppliers can opt to subscribe to paperless invoicing, access their documents online and view catalogs online. We also now exchange most busi-

ness transitions like purchase orders, inventories and invoices electronically (i.e., using EDI or XML).

Automated accounts payables. We redesigned our accounts payable system to use less paper. We receive faxes via email, link electronic invoices to our accounts payable system and use electronic funds transfers. This has improved cash flow, reduced our processing times and dramatically reduced printing and paper storage.

Eliminating fax machines. When we do need to fax a customer, it is done directly from Word or Excel. Since we receive all incoming faxes by email now, paper is eliminated.

Double-sided. We've encouraged all our employees to copy and print double-sided. The result? A dramatic reduction in paper use.

Putting it online. We stopped distributing paper internally. Now all newsletters, phone lists, training info, contracts and financial statements are available to employees on our secure network. This eliminated the printing and distribution of thousands of documents each year, while ensuring the information is readily available to employees.

Make it electronic. Our IT and Credit Management departments eliminated their paper records center and reduced off-site storage by storing records electronically. This also reduced labor needs for filing, sorting, distributing and retrieving paperwork.

Waste Management In Guatemala

Everything has its place at Floricultura in Guatemala, even the trash. For the last seven years, we've been segregating waste and recyclables so that everything—from the farm and the local school—lands in the right place. We teach our staff to classify everything from organic domestic waste to recyclable wire.

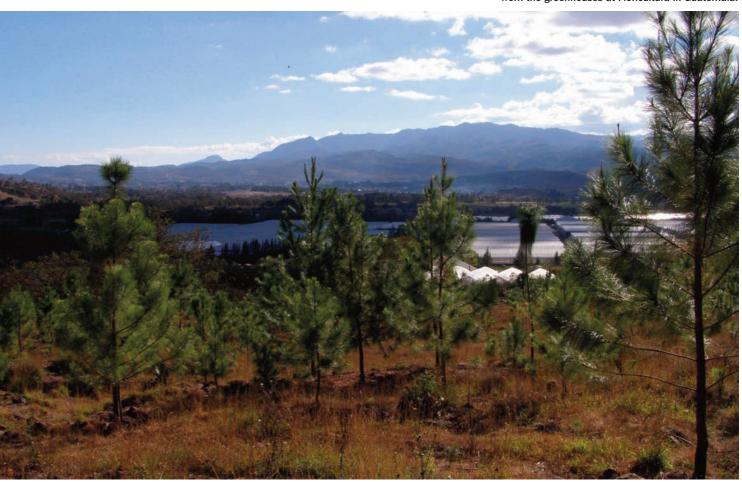
We recycle as much agricultural waste as possible, much of it being sold to recycling companies. For our pesticide containers, we work with Agrequima, a company that safely disposes of the containers and also trains our employees in safe handling practices. We even collect a small amount of bio-hazardous waste generated by our health clinic, which is disposed of by a private company.

Agricultural plastic is one of our challenges in Guatemala. We don't have recycling op-

tions here, so we transport our plant containers and greenhouse plastic to a cement factory, where they are burned in an incinerator.

Training the next generation in waste management is part of our mission, so we give the local school a series of containers for their waste; teach them the principles of reduce, recycle, reuse; and even pick up the containers for recycling/disposal.





Our First Carbon Neutral Meeting

While much of our business can be done via technology, our guiding group of managers from our companies around the world meet annually for the International Manager's Meeting (IMM).

In 2011, we met at our distribution facility in Santafé de Bogotá, Colombia, and for the first time ever, the IMM had a carbon-neutral meeting.

We hired CO_2 nciencia, which specializes in calculating carbon offsets. They helped us estimate the emissions generated during the event—from transportation to energy consumption, lodging and waste disposal for each participant. Then, we offset 30 tons of CO_2 emissions by buying carbon credits, certified by ICONTEC, the Colombian Institute of Technical Standards and Certification. The credits we bought were generated during a reforestation project in Colombia's Chinchina River basin. \square

Native Forest Conservation in Guatemala

We have an impact beyond the green-house. That's why, at Floricultura, we're also proud stewards of the land around our production facility. Since the farm began, we've maintained 40 hectares of native oak trees, and two years ago we began a seven-hectare plantation of native pine trees, which we irrigate with waste water from the greenhouse.

Why maintain these trees? For one, they act as a carbon sink. And they're an important part of ecosystem management, providing a refuge for wildlife.







Pollinator Support

Giving honey bees a fruitful home

The plight of honey bees hits close to home. As an industry, we rely on pollinators—in our breeding facilities, in the field and in our home gardens. Agriculture needs pollinators, and keeping hives, more than anything, is a statement of sustainability for us. You'll find bee hives at our headquarters in West Chicago, as well as at Pan American Seed/Kieft Seed in The Netherlands.

We take care to educate our employees, our customers and our visitors about the importance of pollination. We even provide presentations and demonstrations on-site. While our bees feed on the extensive flower beds, they also hone in on our surrounding environment. The West Chicago property has a restored prairie, which they love, as well as plenty of annuals, perennials, shrubs and trees.

One small, very popular bonus of having these active insects on the property is all the honey. Our employees get to purchase raw, local honey as well as beeswax candles.

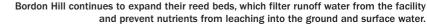
Did You Know?

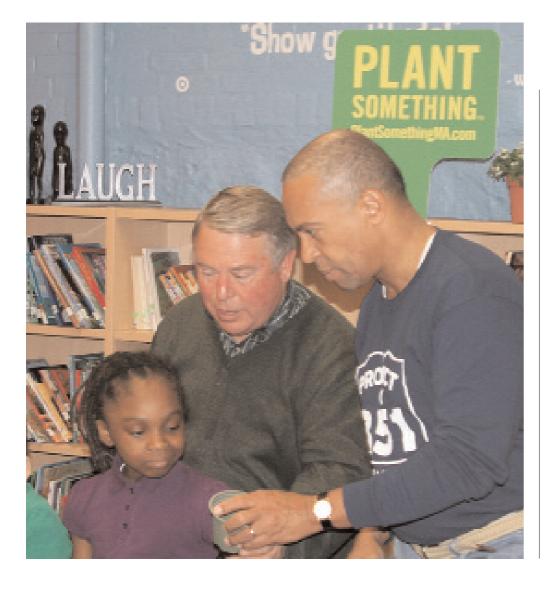
To make one pound of honey, a hive of honey bees will tap some two million flowers and fly more than 55,000 miles. In August 2012, we collected 195 pounds of honey from the five hives at our West Chicago headquarters. That's a lot of flowers and a lot of miles!

Recycling Gains in the UK

Bordon Hill Nurseries in the UK ran into a roadblock last year when their recycler said that their EPS (expanded polystyrene) trays contained too much moisture and couldn't be reprocessed. But they found a solution: by storing the trays indoors and allowing them to dry out, they were able to find a new life for their trays, rather than sending them to the landfill.

We began recycling wood in 2012 at Bordon Hill, thanks to a company who takes it for recycling and fuel use. We also organized a Recycling Shop for our employees, which allows everyone to bring in and find new homes for their unwanted stuff, rather than throwing it away. People grab what they want, and donate what they don't need. It's an easy two-day event to offer, and our staff loves it. They like it so much that they also now use our weekly newsletter to advertise items for giveaway or donation.







PlantSomething in Massachusetts

Bob Luczai (photo, center), our Ball Seed sales representative based in Massachusetts, goes above and beyond to spread the word about the benefits of plants. He spent this year working with the Massachusetts Flower Growers Association on a campaign called PlantSomething.

They've been promoting PlantSomething everywhere—with truck decals, in the garden centers, and even on posters in Boston's public transit system. The campaign encourages consumers to use plants, and most importantly, it's sharing how plants impact our quality of life.

During the launch of PlantSomething, the

governor of Massachusetts, Deval Patrick, (photo, right) declared May as "Flower and Nursery Month." In addition, Bob and his cohort at the association involved the Dorchester Elementary School in the launch, and highlighted how plants and gardening can excite children. Bob and the Governor helped 14 first graders plant marigold plugs in our biodegradable pots as part of the festivities.

The PlantSomething program is active in Arizona, Colorado, Idaho, Massachusetts, Minnesota and Washington. □



Plants for Clean Water

Bordon Hill Nurseries, our young plant production company in the UK, sits on the historic River Avon. They've masterminded a water management system that keeps the surrounding locale clean and healthy while becoming a model for sustainable production.

Their system includes their revolutionary BioBeds, plastic-lined pits covered in grass that receive and purify all rinse water from the greenhouse. Through the bioremediation process, sunlight and soil microbes break down pesticide compounds. For other greenhouse runoff water, reed beds help mitigate

problems with nutrients entering surface and groundwater. This year, Bordon Hill added to their reed beds, expanding their capacity to handle and clean runoff. The reeds also serve as a wildlife habitat, giving a home to moorhens, reed warblers, and countless frogs, toads, newts and other wildlife species.

One of the key components of our sustainability plan at Bordon Hill is constant monitoring. We're always setting new goals and measuring our progress. To that end, this year we instituted a plan for monthly site audits to make

sure we are managing and maintaining the environment around the nursery. In spite of 2011 being a very wet year, which tends to speed up the flow through the reed bed system, water quality, measured monthly, is looking very promising against goals.

Earth Day Around the World

Inspire, educate and act

One day can make a difference. Ball locations around the world celebrated Earth Day in a diverse array of celebrations and volunteer efforts.

Korea

Employees took part in planting flowers on their rooftop garden during Earth Day at Korea-America Seed and Seedling in Gunpo City, Korea. In addition, employees took to the grounds around the office building to clean up and plant bedding plants.



Guatemala

At Floricultura in Guatemala, Earth Day is a day of learning and teaching. At the greenhouses, we have our own presentations and film viewings as a part of an ongoing effort to improve our environmental impact both at work



Floricultura has been helping their neighborhood school for years—usually with construction projects. But on Earth Day, Floricultura employees take on a teaching role.

and at home. The fun part for us, though, is that employees also become the teachers on Earth Day, entering the neighborhood school classrooms to give speeches and presentations about the importance of taking care of the environment and on recycling.

West Chicago, Illinois Our headquarters in West Chicago turned Earth Day into a week-long celebration, with a number of events that tied in with our goal of "Growing a Green Future."

- President Anna Ball inspired us with a talk on the "Gardens of Tomorrow," detailing how plants will serve us and sustain us in the future.
- We hosted an organic micro-green tasting (red clover, buckwheat, sunflower and peas) and offered employees a presentation on how to grow microgreens at home.
- We gave away tomato plants to employees with Ball Garden Plots (onsite vegetable gardens for employees' personal use).
- We hosted a rain barrel sale.
- Our annual electronics recycling event collected 2,176 pounds of old electronics.



Costa Rica

Movie time. We took a multi-media approach with a video that captured the importance of reducing waste and using recycled material. The film also instructed on how to classify garbage for better disposal.

Clean-up. Linda Vista employees scoured the streets and parks in Cartago, Costa Rica; picked up 300 kilos of trash; and recycled 30 kilos of plastic bottles and 10 kilos of glass.

Photo contest. We wanted to promote taking care of our Costa Rican forest, rivers and waterfalls, so we ran a photo contest called Images Speak Aloud. Linda Vista employees took their own landscape pictures around Cartago. The result: a series of pictures documenting the beauty and thriving environment around us.

Learning how to grow microgreens was a featured presentation for Earth Day in West Chicago.

SUSTAINABLE PRODUCTS

Sustainable Inputs

Making the production process more sustainable for growers and the end consumer

Unquestionably, the horticulture industry brings vital food and soul-soothing beauty to the world, but we could do a much better job of growing our products in more environmentally and socially responsible ways. It is imperative that we address our dependence on petroleum-based plastic containers, fertilizers and pesticides and give consumers more sustainable product options.

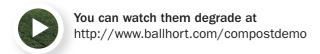
Responsible Packaging Solutions

Packaging waste like plastic pots, packs and flats makes up to 30% of the solid waste in the United States and plastic pots, packs, and flats are contributors. While practical and cost-effective alternatives to conventional plastic have been limited, for more nearly eight years Ball has been bringing promising new bio-packaging technologies to market.



Real World Composting Demonstration

It only took 90 days to bring 150 pounds of our bio-packaging material to a state of water, carbon dioxide and microbial metabolites. We took TerraShell pots, PLA trays and SoilWrap pots to the Land & Lakes Composting Facility in West Chicago, Illinois.



BIO-PACKAGING



Rice Hull and Rice NetPots™ are additional biodegradable pots offered by Ball and Summit. Rice Hull pots are home compostable, while NetPots are plantable.

PLA Trays. We turn to Summit Plastic for a series of compatible PLA trays and square pots. PLA (polylactic acid) looks and feels like a conventional plastic but is made from corn. PLA is biodegradable in industrial compost facilities.



SoilWrap®. Winner of the 2010
Greener Packaging Award, SoilWrap is one of our newest products.
Biodegradable, printable and plantable, this bottomless pot can be planted straight into the ground. The pot is made from Mirel®, a biopolymer produced by microbes. Mirel is a 100% renewable material that's third-party certified soil and marine biodegradable. Plant it and it will degrade right in the soil, becoming food for microorganisms.

For gardeners, this is an important sustainable solution, but it also translates to fast rooting, no transplant shock, 30% faster transplanting and cleanup. It also means no waste going to landfills. With the advent of root windows in the pot, lateral roots can push right through into the soil once it's planted.



TerraShell®. Looking for a more traditional looking pot that's also printable? TerraShell is made of 100% renewable plant-based resin and is biodegradable and compostable. Our partner, Summit Plastic, produces this pot, which fits standard automated pot-filling machinery. □



Learn more about Mirel http://www.mirelplastics.com



Watch our "How to plant SoilWrap" video http://m.ballhort.com/soilwrap



Vegetables With a Boost

Human health is part of what enables us to live strong, happy lives. It's what allows our workforce to drive innovation, and it's what will sustain our global community in the years to come.

So naturally, delivering vegetables that are packed with nutrition makes sustainable sense for our company, our customers and their customers.

Burpee Home Gardens unveiled six stellar vegetables as part of the BOOST collection.

Cherry Punch. This cherry tomato packs a punch, figuratively speaking. It has 30% more vitamin C and 40% more lycopene than average garden tomatoes.

Solar Power. This brilliant orange, cherry tomato can produce more than three times the level of betacarotene than the average garden tomato.

Power Pops. Another cherry tomato that wows with its nutritional value, this one has 55% more lycopene and 40% more carotenoids.

Gold Standard. A cucumber with five times more beta carotene than the average cuke.

Healing Hands. This salad greens mix has 20% more lutein and 70% more anthocyanins.

Sweet Heat. We turn to this pepper for a healthy boost of vitamin C—65% more than the average garden pepper. □

Ball DPF Plant Foods...Naturally

From its plant in Texas, which is certified by the town of Sherman as a zero waste discharge manufacturing facility, Ball DPF LLC makes a variety of Nature's Source™ brand plant food formulations for commercial greenhouse and nursery production, landscapes, specialty agriculture and retail. There is also a formulation used by growers in USDA-certified organic production. And we do it sustainably.

All our plant food products are based on oilseed extract, which is a naturally derived product. The seed extract Ball DPF receives is from manufacturers that mill seeds to extract food ingredients.

In the process of manufacturing its products, Ball DPF also finds valuable uses for the waste it creates. Filter sludge, which results from plant food manufacturing, is pressed to remove



Ball DPF Plant Foods are based on oilseed extract, a natural source of plant nutrition.

as much of the liquid phase as possible. The extracted liquid is resold as a registered 1-1-1 plant food product in the state of Texas. After removing the liquid phase from the filter sludge, material is offered to local growers and cattlemen as livestock feed. We deliver semi-solid filter cake ranging from 16 to 22% in protein, which is a vital feed supplement for livestock.



See what our customers say about our plant food products http://youtu.be/HAbKHcmlr4E

SUSTAINABLE PRODUCTS

Impreza Pink impatiens and many more of our

varieties require little or no plant growth regula-

tors in production.

Start with the Right Variety

A grower's first step in their path to sustainability might just be in what plants they choose to grow. By selecting varieties that don't need as much energy and water, that require fewer chemicals and don't need as much packaging, suddenly a grower's bottom line and ecological footprint look a lot friendlier.

Ball is the first company in the industry to use a scientifically based index of sustainable genetics and products. We call it our Circle of Life Ecolndex. Growers use it to choose plants and hardgoods that make environmental, economic and operational sense.

We use these icons to identify plants that can finish successfully in a coolgrown, low-energy environment; that need less water in the landscape; that reduce or eliminate the need for hazardous chemicals; and to identify packaging that eliminates or reduces waste.

1

Look for the Reduce Energy symbol to find plants that thrive in cool spring nights (26 to 35°F/-3 to 2°C)

and warm days. In trials, these varieties not only saved energy but they also required fewer chemical sprays and had robust flowering.



Learn more about the results of our low-energy input trials www.ballfloraplant.com/culture/ batteryculture.aspx



Advances in our breeding and seed technology have led to significant reductions in plant growth regulator

use. This symbol signifies varieties (including impatiens Impreza and angelonia Serenita) that require little or no plant growth regulators.



The reduced waste symbol identifies products made from renewable resources that offer biodegradable solutions.



Give consumers and landscapers the drought-tolerant plants they need by choosing varieties with the

reduce water symbol. These plants passed two years of trials in arid climates, thriving in both containers and landscape settings with limited water.



Learn more about the results of these trials www.ballhort.com/BallFloraPlant/Pdf Assets/pdfpage.aspx?pdfid=503

Seed

Ball Controlled Growth® seed. We developed this seed treatment process in 2007, treating seeds with a tiny dose of plant growth regulators (PGRs) under controlled conditions. We sell a wide range of flower seeds with this treatment, allowing growers to reduce the total volume of PGRs applied (and also saving on labor associated with its application).

organic seed. We offer a wide range of organic flower and vegetable seed from our West Chicago, Illinois facility. We were the first large wholesale horticultural distributor certified by the Organic Crop Improvement Agency to process and distribute organic seed. The Organic Crop Improvement Agency is administered by the USDA.



Learn more about our Circle of Life EcoIndex program, plants and products http://www.ballhort.com/ecoindex







FULL CIRCLE

Helping Our Customers Grow Greener

In the end, it's about the customer ... and the long view

"WE NEED TO BE MORE
ENVIRONMENTALLY
RESPONSIBLE FOR WHAT
AND HOW WE GROW. THAT
MEANS PRODUCING
PLANTS WITH A SMALLER
CARBON FOOTPRINT. THE
IMPACT OF THE REGIONAL
DROUGHT IN 2007 ON
NURSERIES AND
LANDSCAPING BUSINESSES
IN THE SOUTHEAST MADE
IT CLEAR HOW
DEPENDENT WE ARE ON
FINITE RESOURCES."

Doug Chapman, Plantworks Nursery, Rougemont, North Carolina We made sustainability a priority in our company because we wanted to grow a greener future. We wanted to see our company thrive. We wanted to see our employees thrive. And ultimately—it's the reason we're here—we wanted to make sure we're giving our customers what they need to run strong, healthy businesses for the long term.

Our path to sustainability is long and full of challenges, and each of our locations around the world is taking a unique path en route. We believe the changes we've made have inspired our customers to make their own changes. Our customers care about the products we produce, how we produce them and the sustainability of our supply chain. When we are more sustainable, our customers can be more sustainable.

Plantworks Nursery

How our customers bring sustainability full circle

More and more of our customers are finding that making a plan to survive—and thrive—as a business is about making sustainable decisions. Decisions that are good for the environment are often good for the bottom line.

Plantworks Nursery, Rougemont, North Carolina, needs to grow and water wisely through droughts, and their customers want sustainable products. That means owner Doug Chapman relies on a number of smart production practices and input products.

A few of the things that make Plantworks Nursery tick:

- A water-use efficiency program with flood and drip irrigation, capturing run-off, reusing water and using UV to disinfect it.
- Using beneficial insects and "soft" pesticides.
- Using Nature's SourceTM Plant Food.
- Supplying their wholesale customers with the Burpee Home Gardens line in the biodegradable SoilWrap pot. □



