

# floral management's SUSTAINABILITY SPOTLIGHT



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# Celebrate Sustainability in the Floral Industry



**W**hether you are a floral professional, a legislator, a member of the press or even a flower consumer, it's important that you take the time to read the spotlights in this special sustainability supplement produced by the Society of American Florists' Floral Management magazine — here's why.

The floral industry's progress on sustainability has changed in recent years — and in big ways.

From the U.S. to Colombia, Ecuador, Africa and the Netherlands, growers years ago took the lead setting sustainability standards. They were helped along the way by organizations such as the Floriculture Sustainability Initiative, Florverde, Flor Ecuador and more. The growers' practices — which range from soil, water and energy conservation and the use of biological controls for pests and fungi, to the incredible care they give their workers, offsetting carbon footprints, and using less plastics — trickled down the supply chain. U.S. importers, wholesalers, manufacturers, and retail florists saw how growers were caring for the environment and their people and began to apply those principles to their businesses. And as American consumers start to show an interest in sustainably grown flowers and designs (more on that on page 2), the industry has well-established practices — and stories — to share.

Those stories are evolving. Many U.S. companies are exploring composting, using recyclable packaging, decreasing plastic use and buying from farms that grow responsibly. In the process, retail florists are finding that they are key to marketing the sustainability efforts happening not just in their shop, but all the way up the supply chain. SAF has made it a priority to tell those sustainability stories year-round to help educate the industry about the practices underway, and this publication is just one pillar of that commitment.

The floral industry should celebrate and talk about the progress it has made. Despite new research and practices, old assumptions about the industry remain and seep into media stories preceding major floral holidays. SAF, the industry's watchdog, is always quick to respond to inaccuracies in the media when it comes to sustainability practices, but floral professionals can help, too. How? Educate yourself by taking the time to read this collection of stories from some of the industry's leaders in sustainability.

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# Report: Consumers Prefer a 'Green' Floral Industry

**A new report shows the majority of American consumers prefer to patronize florists who practice sustainability — and they are willing to pay more for it.**

By Laurie Herrera

**A** recent survey of American consumers suggests the majority of consumers would rather shop with florists who are environmentally friendly. That finding is shifting the way some in the industry are thinking about sustainability.

"It's my hope these findings will begin to remove any hesitancy floral providers may have about beginning to transfer to more sustainable business practices," says Coleman L. Etheredge, Ph.D., assistant professor of floral management at Mississippi State University and the report's lead researcher.

The report, released in June, was facilitated by the Floral Marketing Fund, in cooperation with the American Floral Endowment. It found that of about 2,200 people surveyed in December 2022 and January 2023, 61 percent indicated they would prefer to patronize floral businesses that practice sustainability. In addition, at least 50 percent indicated they would be willing to pay more for products from those florists.

While floral trends come and go, Debra Prinzing, a sustainability advocate and founder of the Slow Flowers movement, says she doesn't believe consumers' interest in "green" floral retailers will burn white-hot and then fade away.

"I don't think it's a trend," says Prinzing. "I think it's a cultural shift — and one that's here to stay."



## Sourcing Locally

Of the different sustainability practices presented, survey respondents indicated the most interest (65 percent) in shopping with retailers whose flowers were sourced from local farms. In addition, 61.7 percent of respondents indicated they would pay a premium of 10 percent or more for locally sourced flowers.

"I'm definitely more likely to consider sourcing locally due to this study," says Brian Kusuda of Jimmy's Flower Shop in Ogden, Utah, and a member of the Society of American Florists' board of directors. "This is the first year that we have bought locally grown peonies. We are working with these local peony farms to commit to purchase a specific quantity each week or each day in order to negotiate similar prices to what we can pay elsewhere. More and more customers are asking for locally grown product and being able to say 'yes' to those customers is becoming more and more relevant."

While the study defined "locally sourced" flowers as having been grown within 100 miles of the flower shop or nursery, Etheredge encourages retailers to source and promote origins that may appeal to different customers, including local, in-state, and domestically grown products.

The survey did not ask respondents about their feelings toward flowers grown sustainably in other countries such as the Netherlands, Africa, Colombia and Ecuador. Many farms in Colombia and Ecuador, which export high volumes of flowers to the U.S., hold sustainability certificates issued by third-party agencies. In Colombia and Ecuador, nearly 120 farms are certified sustainable through Florverde. In Ecuador, 100 farms are certified through Flor Ecuador.

## Composting Counts

Respondents indicated that the second most important sustainable attribute of a floral business is composting flower waste, with 63.9 percent saying they'd choose a composter over a retailer whose flower waste ends up in area landfills. The third most important attribute, with 60.5 percent of respondents, was using materials that are sustainable, recycled, upcycled, and/or reusable.



Cameron Pappas, AAF, of Norton's Florist in Birmingham, Alabama, and a member of the Society of American Florists' board of directors, says the study's results make him consider how his shop could better handle its waste. The shop already uses recyclable glass products, reuses containers, and accepts customers' used vases. In addition, his employees give cardboard shipping boxes new life as weed barriers in their home gardens.

"We are working on a plan to begin composting. We have so much waste that could easily be composted," says Pappas. "I've considered having two trash cans at each workstation, one for organic waste and one for plastic and rubber bands."

## Willing to Pay More

While respondents indicated a willingness to pay a premium for flowers from a retailer that practices sustainability, they also indicated that reasonable prices were the most important consideration when making purchases.

Most respondents (55.7 percent) indicated they would be more willing to shop at a retailer with an environmentally friendly certification. Respondents indicated they would trust the retailer's sustainability standards based on the certification alone.

Respondents aged 18 to 34 were most willing to prioritize sustainability and most willing to pay a premium for flowers from retailers who practice sustainability. ■

*The study, "U.S. Consumer Perceptions & Willingness to Pay for Sustainable Environmental Practices in the Floral Industry," was facilitated by the Floral Marketing Fund, in cooperation with the American Floral Endowment. It was co-sponsored by BloomNet and Syndicate Sales.*

## Key Findings

According to the report, "U.S. Consumer Perceptions & Willingness to Pay for Sustainable Environmental Practices in the Floral Industry," 61 percent of consumers would rather buy flowers from environmentally friendly retailers than those that are not. In addition, at least 50 percent of respondents indicated a willingness to pay a 10 percent premium for sustainable flowers.

"Floral providers can use this information to potentially alter their business models to include more environmentally sustainable attributes that they can then use to market their business," says Coleman L. Etheredge, Ph.D., assistant professor of floral management at Mississippi State University and the report's lead researcher.

The study, facilitated by the Floral Marketing Fund, asked respondents which eco-friendly attributes they preferred and whether they would be willing to pay more for them.

## Key takeaways from the report include:

### By sustainability practices:

- 65 percent would prefer to buy flowers that are locally sourced.
- 63 percent would prefer to buy from a florist who composts organic waste.
- 60 percent would prefer to buy from a retailer that avoids single-use products.
- 54 percent would prefer to buy fair-trade flowers.
- 51 percent would prefer to buy organic flowers.

### By gender:

- Male respondents indicated a greater preference toward purchasing from environmentally friendly retailers.
- Female respondents indicated a greater willingness to pay more for sustainably produced flowers.
- Male respondents had a more positive view of the sustainability of the floral industry.

### By age:

- Respondents age 54 and younger were more willing to buy from environmentally friendly florists.
- Respondents age 34 and younger were more willing to pay more for sustainably produced flowers.
- Respondents age 65 and older were least willing to pay more for sustainably produced flowers.

### By income:

- Respondents who made \$200,000 or more per year were less willing to make purchases from environmentally friendly retailers.
- Respondents who made \$75,000 or more per year made more frequent floral purchases.

— Laurie Herrera

# Alexandra Farms

## Sustainable Practices for Generations to Come



**T**here is no greater importance today than affecting global change through the way we conduct our processes, ensuring a cleaner, brighter world for generations to come. That's why Alexandra Farms focuses on sustainable practices — from every drop of rainwater used to grow our garden roses and dahlias to the recycled paper detailing their care. No scrap or textile is too small to be recycled.

Our greenhouses are nestled high in the Andes Mountains of Bogotá, Colombia, where our prolific blooms thrive in the equatorial climate. One of the many benefits of growing our

varieties in this region is that there's no need for manufactured heating, cooling or supplemental lighting in the greenhouses, which in turn leaves little to no carbon footprint. This is just the beginning of how we're making an impact.

We use stored rainwater pulled from on-site reservoirs to hydrate our renowned blooms, and every drop of the recycled water in our hydroponic greenhouses is collected in channels surrounding the farms to return to the reservoirs and repeat the watering process. We have reduced our pesticide use by more than 60 percent with help from other methods,





*Alexandra Farms is a boutique grower of fresh cut flowers, dedicated since 2005 to producing blooms with the best appearance and performance possible. We grow more than 70 garden rose and dahlia varieties with special shapes, colors and fragrances. Our award-winning flowers are available year-round through floral wholesalers around the world.*

including composting and the use of beneficial insects to minimize pests. Our discarded plants, flower waste and detritus are composted and reintegrated into the soil for fertilization. Together, the collection of water and fertilization in our reservoirs greatly reduces runoff and maximizes the resources for continued life cycles.

Our efforts to nurture a stronger, healthier ecosystem don't end with environmental processes. Certified by Florverde and One Carbon World, Alexandra Farms maintains numerous protocols for environmental safety and the health and security of our team. The farms have implemented rules for the safety of the employees, including the restriction of pesticide use by women to safeguard reproductive health; age requirements for

employment; and fencing safeguards along all water reservoirs with signage and life preservers at every perimeter. Our operation begins and ends with our people, so keeping them safe is an absolute priority.

While humanity has a long way to go to slow our growing climate crisis, Alexandra Farms has taken great strides in leaving little to no mark on Mother Nature. Through recycled water, natural resources for growth and fertilization, and a healthy team with a unified vision, our hope is that these initial steps to invigorate our ecosystem will allow us to share our bounty of beautiful flowers with the world for many generations to come. ■



# Deliflor Americas

## Strives for Sustainability

### Water Recirculation

At Deliflor Americas, we have a rain-water recirculation system in place. Rainwater is captured from the greenhouses and channeled to a reservoir lake, from which water is pumped back to the greenhouses for irrigation purposes. The water used is treated through an ultrafiltration system, and the irrigation is done through drip and mist systems, depending on the production area.

### Electricity

We have solar panels that supply electricity to the farm. These panels provide us with approximately 10,000 to 11,000 kWh per month. In the greenhouses, we use GreenPower LED bulbs, which reduce energy consumption by up to 90 percent

compared to incandescent lamps. They offer significant energy savings compared to halogen and compact fluorescent lamps (CFL) while improving crop results. The GreenPower flowering LED lamp is an efficient and energy-effective way to extend daylight in greenhouses.

### Solid Waste

We implement various environmental campaigns focused on reducing solid waste generation, including:

- **Bottles of Love:** We fill plastic bottles with wrappers from different candies and snacks, which are then used by the Bottles of Love foundation to transform the plastic material into recycled plastic lumber for the construction of houses and urban furniture. This is part of our circular economy strategy.
- **Caps for Healing:** We collect plastic caps from various plastic containers, which are donated to the Caps for Healing Foundation, helping children with cancer through the

commercialization of recyclable material.

- **Battery Collection:** We have containers for collecting used batteries, which are delivered to authorized handlers for transportation, storage, and disposal through post-consumer programs to prevent these types of waste from reaching landfills or natural sources.

We have a comprehensive solid waste management plan that outlines the management of different waste generated in the company, from source separation to storage and final disposal. Recyclable waste is donated to the Arofuturo Foundation, where reusable materials are given to single mothers who collect and sell them. Organic waste resulting from plant material discards in the greenhouses is used for composting and later utilized as fertilizer in gardening and landscaping areas. This compost is not used in the cultivation processes of the farm's varieties. Fertilizer and agrochemical containers are disposed of through authorized handlers,



Phone: +57 4 (444) 8794  
deliflor.com



following national environmental regulations and post-consumer programs, ensuring environmental care.

## Bees

We have established an ecological trail that includes the installation of hotels for native pollinator bees to contribute to environmental conservation. Our aim is to create a friendly space for pollinating bees and hymenoptera (bees, wasps, ants, etc.), as bees are the most efficient pollinators in nature. We specifically attract native solitary or eusocial bees, such as those from the Meliponini tribe, which do not have stingers. With declining bee populations worldwide due to habitat loss, intensive agricultural practices, climate change, and excessive use of agrochemicals like pesticides, there are currently about 20,000 species of bees globally, with Colombia having approximately 1,000 to 1,500 species, of which less than half are registered.

Pollination is crucial for ecosystem balance and the reproduction of angiosperm plants that provide food for humans. Bees can increase the quantity and quality of food crops like blackberries, mangoes, avocados, and passion fruits by approximately 30%.

## Reforestation

Located in La Ceja, Antioquia, Deliflor Americas has a property spanning 8.15 hectares, with 1.5 hectares dedicated to greenhouses for our variety production. The remaining space



*At Deliflor Americas, we strive to ensure that all our processes and varieties are sustainable. Our way of operating is always aimed at caring for the environment and being a breeder that makes a difference in everything we do. That's why we want to share with you all our initiatives to make our process and the world a better place.*

not used for economic activities is focused on reforestation programs with native species that serve as habitats for local fauna. Additionally, we compensate for our carbon footprint through ColCX. ColCX is an initiative created for greenhouse gas (GHG) mitigation projects focused on reducing emissions or increasing the removal of greenhouse gases.

In the year 2020, the organization offset 99 metric tons of carbon dioxide equivalent (tCO<sub>2</sub>e) through the CO2CERO CORDILLERA CENTRAL Forest Project and 77 metric tons of tCO<sub>2</sub>e through the CO2CERO VICHADA Forest Project.

## Training

Throughout the year, training, awareness campaigns, and sensitization activities are conducted on topics such as caring for and conserving the flora and fauna within the property, proper management of solid waste, and efficient use of water and energy.

## Pest and Soil Management

The soil is sterilized every planting cycle, approximately every 20 weeks,

using steam generated by a natural gas-powered boiler for 2.5 hours per bed, reaching a temperature of 90 degrees Celsius.

Planting of vegetation is not done directly in the soil but in pots or containers filled with soil. Therefore, at the end of each plant's productive cycle in these areas, all the soil is removed from the pots, composted, and subsequently used in garden areas.

An integrated pest and soil management process is employed to prevent and treat pests, diseases, and physical issues. It utilizes cultural, behavioral, biological, physical, biotechnical, genetic, mechanical, and chemical methods, with chemicals being the last resort and only used in response to justified situations of population stimulation of pests or diseases as the sole alternative for phytosanitary control.

## Employee Safety and Well-Being

We also uphold a commitment to ethical trade, ensuring dignified and safe working conditions, fair wages, and reasonable working hours without discrimination.

Additionally, we implement good social practices with all employees in accordance with the commitments established by the International Labour Organization and the Universal Declaration of Human Rights, including providing confidential communication spaces for complaints without fear of reprisals. We comply with and respect applicable international laws, and promote and guarantee awareness of human rights. ■



# Ecoroses

## Transforms Its Approach to Embrace Sustainability



In the pursuit of environmentally responsible practices, the flower industry — particularly rose production in Ecuador — is undergoing a remarkable transformation in its approach to cultivation. Through the utilization of cutting-edge technologies and innovative methodologies, Ecoroses embraces sustainability as a core principle. This article delves into their practices and profound impact on the industry.

Ecoroses, an exceptional rose farm deeply committed to sustainability, stands as an exemplar amidst awe-inspiring landscapes. They serve as a testament to the harmonious coexistence of agriculture and environmental stewardship. With an unwavering dedication to the preservation of our planet, Ecoroses has ingeniously devised a model where the cultivation of exquisite roses seamlessly aligns with sustainable practices. Through the combination of state-of-the-art

technologies, eco-friendly farming techniques, and a profound respect for nature, Ecoroses not only yields exceptional blooms but also establishes a benchmark for conscientious flower cultivation. Join us on a captivating journey through their processes, where beauty flourishes hand in hand with a greener future.

Among the many sustainable efforts and practices they champion, some notable highlights include:

**Rainwater storage and reutilization.** This has become a fundamental component of sustainable rose production. Thanks to its location at the foot of the Illiniza Mountains, Ecoroses benefits from an abundance of rain, allowing them to harness this resource throughout the year. They adhere to the 3Rs principle by making the most of the resources generously provided by nature.

**Use of hypochlorous acid.** This remarkable advancement serves as



*Ecoroses has supplied high-quality roses for 25 years. Located in the Ecuadorian valley of Machachi, Ecoroses is proud of its production process and catering to the most demanding customers. With state-of-the-art technology, paired with well-trained, motivated, and service-oriented staff, they stand out for delivering fresh, consistent, premium roses that always excel.*

an organic disinfectant for cleaning irrigation pipes and their water treatment system. Produced through an electrolysis process involving water, salt, and electricity, this organic disinfectant proves highly effective in eradicating bacteria, viruses, and fungi. Its implementation ensures the cleanliness and sterility of their irrigation systems in an organic way. It also serves as an organic water hydration solution used in the post-harvest and hydration cold rooms.

**Reverse osmosis.** It optimizes flower hydration by eliminating excess salts and minerals, facilitating superior water absorption, and fostering higher performance and durability. It contributes to obtain a superior quality, reducing considerably products that generate undesirable chemical residues.

#### **Utilization of beneficial mites.**

By harnessing the power of nature's predators, they safeguard their crops

against pests and diseases while minimizing the use of chemical pesticides. Additionally, they operate a specialized laboratory for the production and utilization of beneficial fungi, further enhancing their environmentally friendly management practices. Using specialized software, they geolocate pests and diseases within the greenhouses, leading to improved pest control and reduced reliance on agrochemicals. This approach ensures a sustainable environment for the exquisite blooms.

**Ultrafiltered water for spraying.** This allows them to achieve heightened agrochemical efficiency. The practice optimizes pest control measures and adheres to sustainable farming principles, reducing the volume of water required for spraying as well as agrochemicals needed.

**Incorporation of organic matter.** Ensuring moisture retention within the soil, this practice showcases their commitment to responsible water usage. It reduces the need for excessive irrigation. Most importantly, it aligns with the principles of the 3Rs by enabling them to recycle and reuse organic matter from crops and post-harvest processes. This natural nourishment aids in the fertilization process and significantly reduces the need for chemical fertilizers.

**Temperature and humidity management.** Meticulous management of temperature and absolute humidity within their greenhouses reduces plant transpiration, subsequently lowering water demand. This precise



control allows them to optimize their resources while providing an ideal environment for their roses to thrive.

Ecuador, renowned for high-quality rose exports, is leading the way in sustainable practices. Ecuadorian rose producers set an example for environmentally responsible cultivation worldwide, which has a multifaceted positive impact. Ecoroses promotes sustainable water management, improves crop health while reducing chemical dependency, and enhances its long-standing reputation by exemplifying the harmonious integration of sustainability.

At Ecoroses, commitment to excellence is synonymous with a "think green" mindset. They not only strive for excellence in their processes but also prioritize the well-being of their people, valued customers, and the paramount legacy they aim to leave for future generations — the preservation of our planet. ■



# A Garden of Commitment

## The Elite Flower Group Flourishing in Environmental and Social Sustainability



**T**he Elite Flowers Group's incredible journey stretches back to 1991 when floral industry pioneer Peter Hannaford planted a couple of hectares of roses in Colombia with the help of his wife and a few close relatives.

Now, we're proud to run sustainable and ethical farms in Colombia, Ecuador and Kenya on farms such as The Elite Flower, Agrinag, Bellarosa, Florsani, Natuflor, Qualisa and Flower Village.

Our work is intimately linked to the environment. We're committed to operating sustainable and responsible farming practices that respect the land that our employees call home.

### THE ELITE FLOWER "Craftsmanship in Everything We Do"

The company started the **Fernando Borrero Foundation** to give back to the local communities that promote the well-being of our employees, their families, and the communities where more than 11 of our programs provide access to housing, health, recreation, education and cultural initiatives.

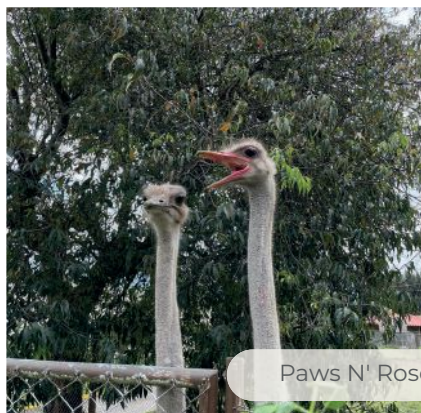
eliteflower.com

### AGRINAG "A Remarkable Floral Experience"

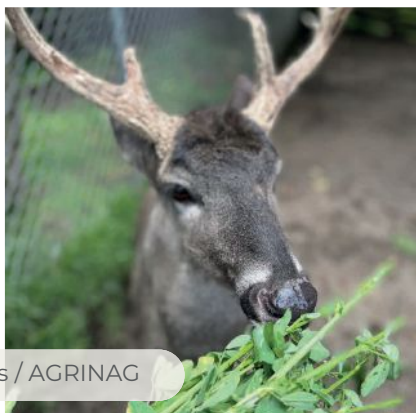
At Agrinag, our Paws N' Roses is more than a rescue center. It is a sanctuary



Rainforest certification/NATUFLOR



Paws N' Roses / AGRINAG





THE FERNANDO BORRERO  
FOUNDATION



## The effort



### Action

We measure, reduce and compensate for all our emissions through better practices and ecosystem conservation

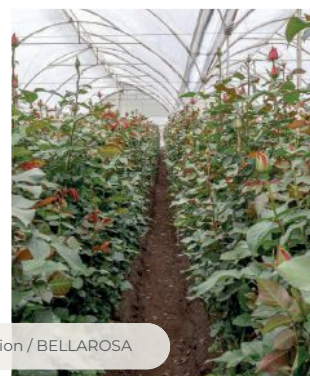


### Certification

We got certified PCNA® in carbon neutrality, a protocol that validates our efforts.



Cultivating Innovation / BELLAROSA



of hope, where deer roam, monkeys play, parrots chatter, and the eagle soars. We provide them with safety, healing, and a second chance at life.  
[agrinag.com](http://agrinag.com)

## BELLAROSA

### "Cultivating Innovation, Harvesting Beauty"

Bellarosa is always developing new alternatives to grow beautiful and sustainable roses with passion. Our team of experts thrives on innovation, seeking perfection and sustainable choices.  
[bellarosa.com](http://bellarosa.com)

## FLORSANI

### "Handcrafted by Artisans"

Located in the heart of the Andes, the Florsani farm performs responsible production practices and develops programs for people of all ages, such as those that care for the elderly and promote youth development. With deep respect for nature, Florsani

creates projects to keep a neutral carbon footprint, care for its animals, and manage its waste responsibly. The farm's practices, activities and processes operate under the most important social and environmental certifications which include Fair Trade Certification, Rainforest Alliance, PCNA in carbon neutrality, Flor Ecuador certification, BASC and Sedex. [florsani.com/es](http://florsani.com/es)

## NATUFLO

### "Blooming Together"

Natuflo has established itself as a leader in responsible certifications such as Fairtrade USA and Rainforest Alliance, which highlights Natuflo's commitment to sustainable practices and environmental preservation.

With the Rainforest certification, Natuflo aims to solidify its position as a farm dedicated to transparent and ethical operations. By adhering to the stringent environmental standards,

Natuflo ensures the protection of ecosystems and the well-being of local communities. [natuflo.com](http://natuflo.com)

## QUALISA

### "Inspired to Be Extraordinary"

The solid commitment that Qualisa has made to sustainability is evident by its Fairtrade certification, through production practices that minimize environmental impact and promote the conservation of biodiversity, and in how the entire team of workers is cared for.  
[qualisa.com](http://qualisa.com)

The Elite Flower Group has demonstrated a comprehensive and responsible approach to innovation, quality and environmental and social responsibility. Its commitment to these core values positions it as a benchmark in the floral industry and an inspiring example for other companies seeking to balance business success with sustainability and social responsibility. ■

# Rethinking Green

## The Future of Floral Foam



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floracraft.com



Florists have long been using their talents to bring joy to clients by working with an abundance of fresh flowers and permanent botanicals to create inspiring arrangements. These masters of floral design have an innate talent for choosing the perfect color and floral variety to convey messages of celebration, commemoration and recognition.

Green has always been a signature color of the floral industry, but in recent years it has taken on an additional meaning.

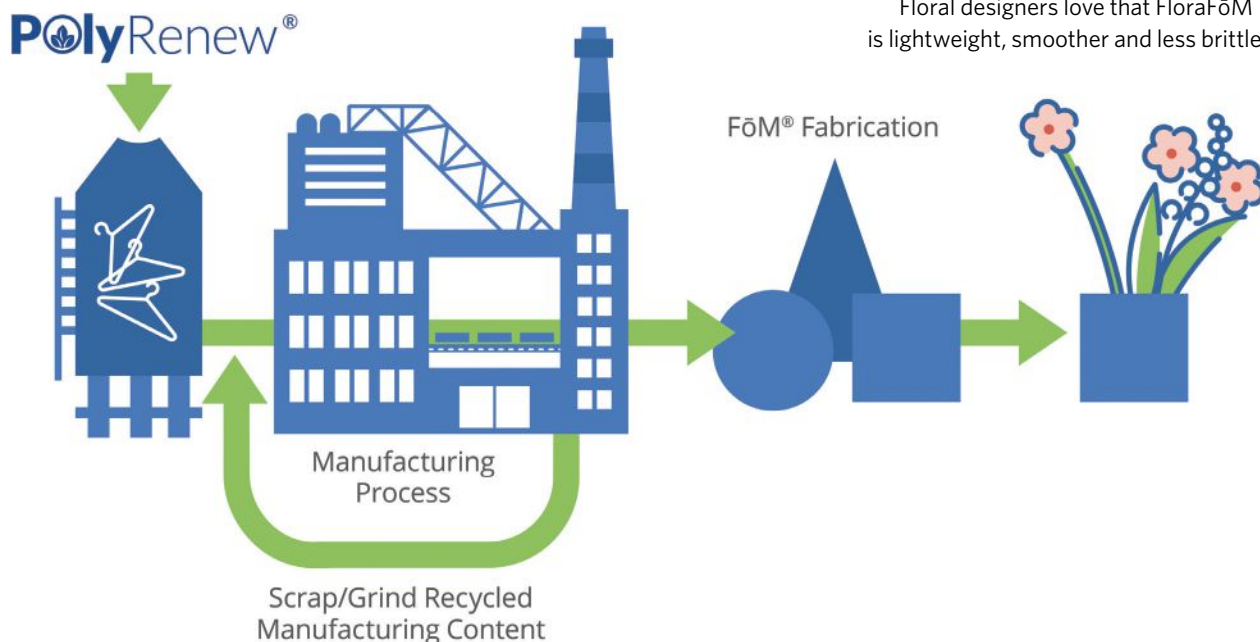
Sustainable floristry is no longer just a trendy topic, it is becoming a driving factor in arrangements. The floral industry has expressed its desire to be more environmentally conscious in order to be a truly green profession. Florists and wholesalers alike continue to make more socially

mindful decisions about the products they buy and packaging they use.

FloraCraft®, the world's leading manufacturer of foam products for the floral industry, recognized this aspiration and took action. The result was FloraFōM® with PolyRenew®, a floral foam line made with post-consumer recycled plastic.

FloraFōM, most commonly used with permanent botanicals, represents the first true innovation in the foam category in more than 70 years and is the first product of its kind on the market to feature recycled post-consumer material. The Ludington, Michigan-based company manufactures FloraFōM, which uses a blend of plastic from recycled garment hangers from retailers across the country along with new extruded polystyrene, or XPS, previously known as STYROFOAM™ Brand Foam.

Floral designers love that FloraFōM is lightweight, smoother and less brittle





*FloraCraft is the world's leading manufacturer of foam products for the craft and floral industries. Based in Ludington, Michigan, FloraCraft provides innovative, American-made products to wholesale florists nationwide. For more than 75 years, FloraCraft has made it easy for creators everywhere through its innovative craft and floral foam products.*

than the company's legacy foam, making picking, painting and cutting easier while producing less dust, so cuts can be made with minimal cleanup. They also enjoy FloraFōM's sturdier design, which reduces the possibility of the material denting during use, making it the most obvious choice for holding stems in place.

Even fresh flowers can be used with this XPS foam by placing water picks directly into the foam, creating a useful alternative for floral arrangements. The lightweight yet sturdy foam easily can fit in any container while safely holding stems or water picks in place.

Since its launch, FloraFōM has not only been a hit with floral designers but with the business world, too. FloraFōM and FloraCraft have earned national and international recognition for sustainability and product innovation by the National Association of Manufacturers, American Business, Edison Awards® and Beyond Plastics organizations.

By mixing in recycled material, the company can still make the same amount of product it normally does, but takes out the equivalent of nearly 1,000 miles of plastic per year, or the distance between New

York and St. Louis, that would otherwise end up in a landfill.

"We listened to our customers, who told us they really want to use products that have been responsibly made," says FloraCraft CEO Eric Erwin. "They want to know the foam used in their floral projects is created with environmentally conscious materials, it doesn't pollute the water supply and is made right here in the United States.

"Not only has FloraFōM changed the floral foam manufacturing industry, but it has allowed us to rethink how we produce all our products moving forward. We're taking plastic that would normally end up in a landfill and making it into a high-quality foam product — a win for the designer and the environment."

FloraCraft wants floral designers to feel great about the products they use while representing their desire for sustainable floristry. FloraCraft is driven by social responsibility, dedicated to building a sustainable company that employs best practices for the environment, people and the communities it operates in. The manufacturer is committed to reducing its environmental impact by recycling more than 98 percent of its foam fabrication scrap, which is collected and reused in other FloraCraft products or sold to companies that utilize recycled materials.

FloraFōM is now available to florists everywhere through your local wholesaler. ■



# Do Good. Every Day.

## FloraLife

● ● ● ● ● ● ● ● Experts in Flower Care



While sustainability is not new at FloraLife, 2018 was certainly a turning point. With the war on plastic in full swing, we decided like many to do something about our packaging. Interestingly, there were all kinds of alternatives and no obvious answer to what was truly the most sustainable step. Was it compostable, recyclable plastic, paper, or something else? We realized in this moment there was much to learn about sustainability in order to correctly guide our decisions; if we were to change, we wanted to be certain it was a step in the right direction. We decided to go back to school, learn the ins and outs of sustainability and how to appropriately apply it to our products, culture, and customers. From this education the FloraLife Sustainability Plan 2025 was born, a



plan that clearly draws our sustainability journey through 2025.

The plan is organized into five different commitments: climate change, water stewardship, product portfolio, sustainable packaging, and stakeholder awareness.

- **Climate Change:** Our business and product line's carbon footprint on the planet: What is it and how can we reduce it?
- **Water Stewardship:** How much water do we consume in the operation of our business and how can we help the industry reduce water usage?
- **Product Portfolio:** Are we satisfied with the footprint of our products, and can we reduce it? Additionally, how can we help the industry reduce their waste footprint by using our products?
- **Sustainable Packaging:** Following the reduce, reuse and recycle principles, how can we transform our products' packaging?
- **Stakeholder Awareness:** Can we build a sustainability-driven culture and pass our learnings on to the industry? Together we can achieve much more!

Inside of these commitments we have 27 goals to achieve. These goals help focus and structure the projects we take along on our sustainability journey. While the plan is somewhat fluid, we recognize there is too much in the world of sustainability to do at once and in laser focus. However, bite-size chunks will keep us moving in the right direction.

## Project Spotlight

### Sea Freight

The big question for all flower importers is the following: Can we switch from air freight to sea freight, placing flowers into shipping containers that travel for weeks — not days — and still provide the experience consumers expect? This is where FloraLife® products and protocols come in. Working with key partners, we have developed processes and techniques to keep flowers thriving and maintain quality as they travel this tricky, longer supply chain.

Hydration and holding solutions such as FloraLife® Express 100 and FloraLife® Express Ultra 200 keep the flowers well hydrated and fed where need be while protocols dictate specific environmental conditions such as temperature to keep the flowers in a slumber state. The FloraLife® EthylGuard and the EthylBloc™ technologies suppress any unwanted ethylene damage, while the FloraLife® Shield technology keeps the flowers strong, consistent and maintains appearance. Where needed, we also have the FloraLife® Store and Transport Liners to wrap around flowers to help regulate their hydration without encouraging disease. Overall, it's the combination of our products and experience which allows fresh cut flowers to navigate weeks of long-term storage, significantly reducing the costs and environmental footprint of our partners while they ship their flowers.

### Sustainable Packaging

For the most part, we have two main product categories, bulk products and packets: bulk being the 1-gallon or 5-pound and up size containers of hydration or feeding solution and packets being the small sachet of flower food used by the consumer to enjoy their beautiful cut flowers for longer. For bulk containers, we have



started to include certain percentages of post-consumer recycled content in the plastic containers, meaning a portion of the packaging has already had at least one life before! In Colombia this is at 65 percent recycled content and in Europe 100 percent. The next stop along this journey is the United States with containers currently at 25 percent recycled content and solid plans to increase this number. This is a significant reduction on our virgin plastic footprint. Not only that, but where possible we have removed unnecessary packaging, downsizing where possible.

As for packets, we have a full range of alternative packaging options available. We manufacture recyclable plastic, regular and moisture-resistant recyclable paper, and film including recycled content like our containers. Depending on the environment these packets end up in, we would advise choosing one option, but we want to make sure our customers have access to all possibilities that align with their sustainable goals.

### Carbon Neutral

Working with Carbon Footprint Ltd., leaders in carbon assessing and carbon offsetting, we have assessed our global FloraLife® Express 200 and our global flower food packet ranges.

Fully understanding the footprint of these key products has allowed us to make decisions about packaging, supply chains, and concentration to further reduce their effect on the planet. Beyond our attempts to organically reduce the carbon footprint, we engaged in carbon-offsetting activities to make certain products are carbon neutral. We encourage you to check our new range of global paper packets, which are fully carbon neutral, as well as our FloraLife® Express Ultra 200, 5L through 20L (or U.S. imperial equivalent). To date, we have offset 1,041 tons of CO2e and encouraged our customers to move to Ultra concentrated product, reducing emissions through significant packaging reduction.

For more detailed information, we invite you to check our sustainability plan and progress at [www.floralife.com/sustainability](http://www.floralife.com/sustainability). We look forward to hearing from and working with you to help reduce your footprint. Reach out to your local FloraLife representative for more information or check [Floralife.com](http://Floralife.com). ■



Mark Allen, [mallen@smithersoasis.com](mailto:mallen@smithersoasis.com),  
Global Product and Sustainability Manager



# Sustainable Farming

## A Family Stewardship



Phone: (760) 433-9550  
mellano.com

**M**ellano & Company has been a steward of its California land for over 60 years. Generations of Mellano family members have grown up on the same soil where foliage and flowers are grown today. As such, maintaining the health of this farm and the environment around it is of utmost priority.

Mellano & Company is proudly BloomCheck certified. BloomCheck is the gold standard in the certification of fresh cut flowers and foliage. It verifies that farms with the certification have met rigorous sustainability standards including pest management, water conservation, soil health, energy efficiency, and employee safety.

### Pest Management

Mellano & Company addresses pests in a variety of ways. Combined with the traditional pesticides, they apply biocontrol methods; for instance, using beneficial insects such as lady beetles, predatory mites, and predatory nematodes to kill bad insects. This practice reduces pesticide usage overall.

Though Mellano flowers are not grown for human consumption purposes, the company takes environmental stewardship very seriously. They have dedicated sustainability and research programs that strive to find new ways to reduce pesticide usage while maintaining the highest product quality standards.





## Water conservation

On California farms, being waterwise is a way of life. Sprinkler irrigation, though commonly used elsewhere, is an inefficient use of water as it sprays over the entire planting area, even in areas where there are no roots. Water also evaporates from the soil surface more easily with sprinklers. Instead, Mellano & Company uses a drip tape irrigation system where a line of drip tape is placed under the soil next to the roots, which reduces evaporation and wasted water by giving each plant only as much water as it needs, right

where it needs it. To keep even closer track of water usage, they use electronic sensors to make sure only the exact amount of water that is needed is used for each plant.

## Soil health

The family company also composts all its green waste from harvesting. Composting improves soil health, helps keep water in the soil, releases nutrients gradually and naturally, and stores carbon in the soil long term — instead of in the atmosphere — helping maintain soil richness and health for years to come.

## Energy efficiency

All of Mellano's refrigeration and lighting is periodically monitored for areas in need of improvement, such as improved insulation and energy efficient light fixtures.

## Team safety and wellness

Mellano team members are integral to its farming operation. As such they provide wellness services such as training, flu shots and food donations, as well as employee appreciation events to recognize their team for their efforts. ■



# Rosaprima Publishes Its First Annual Sustainability Report



Phone: (305) 644-8459  
rosaprima.com

**S**ustainability is an integral part of the way we do business at Rosaprima. Our values are rooted in a deep respect for nature and people. As a company intimately connected to its land and the people who work on it, we understand that *what* and *how* we do things directly affects the plants and the flowers that grow from them. The beauty of a Rosaprima rose is a reflection of the dedication, care, and passion that goes into every aspect of what we do and who we are. This is why our commitment to growing our flowers in an environmentally and socially responsible

manner is an irrevocable principle of our mission. We aim to be an agent of positive change to contribute to creating a better world — not only for future generations but for this one as well. Today, we are excited to share with you our first annual (2022) Environmental, Social, and Governance Report, available on our webpage for downloading

This ESG report is an expression of our drive to continue learning and developing in our ongoing pursuit of working more sustainably. It is also a declaration of our intention to communicate externally the work we do on the issues identified as the most



pressing in our sector. The information presented is, therefore, directly related to those issues. The report is intended to show a moment in time and is not intended to be seen as something static, but rather, something that is constantly changing and evolving with Rosaprima, our people, and the world all around us.

We have drawn on the norms and principles of key international reporting standards and frameworks such as the Global Reporting Initiative (GRI), the United Nations Global Compact (UNGC), and the United Nations Sustainable Development Goals (UN SDGs), to guide how we gather and present information in a way that can be clearly understood.

The report outlines our key areas of influence. It highlights the work we do that makes us a leader in the floral industry, not only with the most beautiful roses but also with regard to our environmental and social responsibility.

One of the trends that we are happy to see grow consistently over the years is our solid gender-balanced workforce that extends from the field all the way up to the executive team. At the farm level, the gender composition is 46 percent women, and 54 percent men, while

*Rosaprima is a rose grower company in Guachalá, Ecuador. With 1,600 employees and +150 hectares, Rosaprima has gained a reputation as one of the world's best rose growers with a commitment to quality and the belief that roses are the star in life's most extraordinary moments.*

at the head offices, 54 percent are women. At the executive level, it is split down the middle: 50-50. Even more impressively, in a traditionally almost exclusively male role, 67 percent of our agronomists are women!

We are also very proud to be offering all our employees a living wage, which is defined as remuneration that enables a person to afford a decent standard of living for them and their family, on top of receiving benefits such as access to free health care at the farm, transportation to and from the workplace, access to special discounts at some supermarkets and pharmacies, etc.

Likewise, we have continued developing strategies and technology to help us be more efficient in our resource use, enabling us to reach incredible milestones such as reducing water usage each year and recycling plastic!

Of course, the report also indicates where we can do more to strengthen our commitment to being an agent for positive change. It serves as a clear guide for us to make the necessary improvements. We look forward to the projects we will start and develop this year. In the meantime, we hope our ESG report helps you better understand the value of our work in the bigger picture of our interconnectedness in the world. We also hope it serves as a stepping stone to further our sustainability and that it may inspire our partners and customers to find ways to work together on some of these issues!

If you would like to know more, we invite you to download our ESG Report 2022 directly from our website and contact us with any comments or suggestions. We would love to hear from you! ■

# Design a Better World



SMITHERS-OASIS

Phone: (330) 945-5100  
[smithersoasis.com/sustainability](https://smithersoasis.com/sustainability)

From more sustainable products to educational initiatives to manufacturing, we are always looking for big ways to help *Design a Better World* for all of us. At Smithers-Oasis, we recognize that being socially and environmentally responsible requires thoughtful stewardship and accountability to preserve and improve our world for future generations.

Since 2013, when we committed to our Three Pillars of Sustainability: *People, Planet, Prosperity*, we have invested in the efficiency of our operations, training for employees, and research and development to continue enhancing

our products' sustainability profile. Since then, we have strengthened our commitment and defined key areas to impact our world and *Do Good. Every Day*. These impact areas span essential issues affecting our communities, employee experience, and health and safety. Additionally, we continue to focus our efforts on product responsibility and innovation as well as our environmental footprint.

As a global leader in floriculture, we are dedicated to working with our customers and supply chain partners to meet and exceed the increasing market demand for environmentally responsible products. In addition to developing more sustainable





products, we are focused on scrap reduction, materials recycling, process emissions reductions, and product life cycle evaluations.

We are proud to be the first in our industry to eliminate chlorofluorocarbons in our floral foam production. We have reduced our volatile organic compound (VOC) emissions by more than 85 percent.

New in 2021, floral design meets the industry's first compostable, patent-pending floral media with OASIS® TerraBrick™ Floral Media. Made with plant-based, renewable, natural coir and a compostable binder, OASIS® TerraBrick™ Floral Media has been certified as both OK compost HOME and OK compost INDUSTRIAL by TÜV Austria, a third-party certifying organization.

We continue to develop innovative products such as our OASIS® Floral Foam Maxlife, which degrades by 75 percent in one year in an anaerobic environment.

Over time, we have been able to develop increasingly sustainable products with compostable and degradable attributes that increase their recyclability. The products, which prioritize recycled content, maintain their quality and reliability while consuming fewer resources.

We recognize that sustainability depends on all of us and starts with integrity, the foundation of our Core Values. Our dedication to integrity is apparent throughout our business, from manufacturing processes and business partnerships to corporate responsibility and environmental sustainability efforts.

To learn more about our sustainable efforts, impact areas, and initiatives, check out <https://www.smithers-oasis.com/sustainability>. ■



# Empowering Sustainability

## Making a Positive Impact on People and the Planet



Phone: (866) 879-7653  
solefarms.com

**A**t Solé Farms, we are deeply committed to sustainability and recognize our crucial role in preserving the planet's natural beauty and ensuring a thriving future for all.

As a company, we believe that sustainably delivering the most beautiful and diverse range of flowers depends on our farms and the strong relationships we have cultivated with growers and suppliers over 20 years. Our contribution to sustainability is based on two pillars: environmental and social.

To prioritize environmental sustainability, at our farms in Colombia and Ecuador, we implement strategies to minimize our impact on water, soil, and air resources. We use eco-friendly biological and biorational products for pest and disease control. Our waste management program focuses on reduction, sorting, recycling, reuse, and responsible disposal.

Additionally, we have installed a photovoltaic system with 285 solar panels on the roofs of our post-harvest room and cold storage





facility. This system generates up to 13,120 kW/h per month, accounting for approximately 21 percent of our total energy consumption. By utilizing solar energy, we have avoided emitting 22 metric tons of CO<sub>2</sub> that would have been produced by conventional power plants running on fossil fuels.

In terms of social impact, we prioritize the education of the

children of our farmworkers. We allocate a monthly budget to establish on-site schooling at our farms, providing comprehensive education and equipping these children and young people for a promising future. We also prioritize the health and well-being of our workers by offering on-site physiotherapy and medical care. ■



# Syndicate Sales

## Increases Efforts in Sustainability



Phone: (800) 227-3084  
syndicatesales.com



### Overview of Efforts

2024 is on track to be a big year for sustainability at Syndicate Sales. Setting our sights to become a more sustainable company, we have begun laying the groundwork for programs emphasizing sustainable practices by considering the entire life cycle of products, processes and systems.

In the coming years, we are prioritizing the development of products that reduce production and dependence on single-use plastics. Providing florists with tools and mechanics made from sustainable materials is an initiative we will continue aggressively pursuing.

Additionally, we are making advancements by experimenting with new, more environmentally friendly materials for our products. So many exciting things are happening in this space, and we are exploring creative solutions that will remain cost effective for the florist.

Syndicate is also looking internally for new and innovative ways of dealing with our manufacturing and production waste materials to become a more climate-friendly company. Syndicate is committed to continuous improvement, with sustainability in mind for 2024 and beyond.



Products that are meant to be reused and recycled, or used as a tool — not single-use plastics



Holly Chapple Demi Bowl and Dahlia Urns, made from a more eco-friendly stonecast resin material

*From concept to convenience, Syndicate aims to be the trailblazer of our industry. We focus on original trend-forward solutions that satisfy our customers' needs while fueling their creativity. Using innovative technology, extraordinary service, and coordinated logistics, we work every day to be wherever flowers and plants are sold.*

We will continue to invest in research to help guide our decisions and support our industry. Recently, we had the privilege of co-sponsoring a study with the Floral Marketing Fund in coordination with the American Floral Endowment (AFE) and BloomNet. For this study, researchers at Mississippi State University and Texas State University worked to gain insights into consumer perceptions related to the sustainable and environmentally friendly practices of floral providers.

Let it be known that our efforts reach beyond environmental concerns. Syndicate understands that sustainability is also about our social and economic impact on the world around us. We are committed to practicing responsible, ethical sourcing and purchasing habits to ensure a healthy supply chain and maintain a thriving floral industry. Through sponsorships, donations, volunteering and service, Syndicate is an active participant in the growth of the floral economy. ■



# What's in a Label?

**Sustainability certifications abound in the floral industry. Here's a breakdown of some of the best-known certifications and how they are administered.**

## BloomCheck

 BloomCheck certifies sustainability standards for flower growers in the United States. It originated under the California Cut Flower Commission (CCFC) — the grower-funded organization that also launched Certified American Grown, a program that verifies U.S. origin for cut flowers and greens. With the dissolution of the CCFC in 2020, BloomCheck is now administered by the Kee Kitayama Research Foundation. BloomCheck's sustainability standards dovetail with, and in many cases exceed, those set by a variety of U.S. and state regulatory agencies. The standards are set by an independent firm, SureHarvest, that provides sustainability solutions for growers and agri-food companies.

[www.bloomcheck.com](http://www.bloomcheck.com)

## Certified Naturally Grown



This certification was created in 2002, the same year as the USDA's National Organic Program took effect. Finding the paperwork requirements of the USDA's program burdensome, a group of small-scale growers founded the Certified Naturally Grown program so they could get credit for growing flowers and produce without synthetic herbicides, pesticides, fertilizers, or genetically modified organisms. Certification relies on peer reviews that also encourage the sharing of grower-to-grower knowledge.

[www.cngfarming.org](http://www.cngfarming.org)

## Fairtrade International



Established in 1997, Fairtrade differentiates itself from other certifications as being 50 percent owned by growers and workers, giving them a voice in the organization's decision making. Flowers are among the many agricultural products that can be designated Fairtrade, as determined by an independent certifying body. The standards encompass economic as well as environmental and social criteria. Fairtrade International is an umbrella organization that comprises multiple stakeholders including Fairtrade America.

[www.fairtrade.net](http://www.fairtrade.net)

[www.fairtradeamerica.org](http://www.fairtradeamerica.org)

## Fair Trade USA



Not to be confused with Fairtrade International or its U.S. branch, Fairtrade America, Fair Trade USA originated in 1983 as a project to help coffee growers in Nicaragua and was launched as a certification in 1998. With roots on the social and economic side of sustainability, Fair Trade standards today embrace the concept of environmental stewardship along with protections and fair remuneration for growers, workers, and fishermen.

[www.fairtradecertified.org](http://www.fairtradecertified.org)

## Flor Ecuador



Launched in 2005, Flor Ecuador is the sustainability certification program sponsored by Expoflores, the Ecuadorean Association of Flower Growers and Exporters. It relies on third-party auditors and promises not only environmental but also business management benefits to participants. As of January 2023, 100 growers were certified.

[www.expoflores.com](http://www.expoflores.com)

## Florverde Sustainable Flowers (FSF)



FSF is the certification sponsored by Asocolflores, the Colombian Association of Flower Exporters.

As of June 2023, 119 farms were certified by FSF in Colombia and Ecuador. In Colombia, FSF has produced measurable environmental and social impact results, including benefits to nearly 45,700 farm workers in 2022. By stem count, 2.1 billion stems of Colombia's flower exports were FSF certified in 2022. To become certified, a grower must meet the highest sustainability standards worldwide, benchmarked to GlobalG.A.P. and the Floriculture Sustainability Initiative.

[www.florverde.org](http://www.florverde.org)

## GlobalG.A.P.



GlobalG.A.P. originated in Europe as an initiative by supermarkets and other retailers that recognized consumers' growing interest in sustainably grown products. The goal was to create a universal, independent certification system for good agricultural practices (G.A.P.). Today GlobalG.A.P. is one of the world's leading grower assurance programs. Its standards set the bar for environmental responsibility in the Floriculture Sustainability Initiative's benchmarked standards.

[www.globalgap.org](http://www.globalgap.org)

## Kenya Flower Council Flowers and Ornamental Sustainability Standard (FOSS)



The Kenya Flower Council, a private and voluntary association of growers and exporters, has created a two-tiered certification program known as

KFC Silver. Producer members are audited annually and awarded either a Gold or Silver certificate based on adherence to principles of sustainability that are benchmarked to the Floriculture Sustainability Initiative's standards.

[www.kenyaflowercouncil.org](http://www.kenyaflowercouncil.org)

## MPS



Founded in 1993 in the Netherlands specifically for the floriculture sector, MPS originally stood for Milieu

Programma Sierteelt, meaning "Floricultural Environmental Project." The international organization is now known as MPS for "More Profitable Sustainability." MPS develops and manages a number of different certificates with a focus on the production end of the supply chain.

[www.my-mps.com](http://www.my-mps.com)

## Rainforest Alliance



One of the most widely recognized green certifications, the Rainforest Alliance began its work in 1987 fighting unsustainable forestry in Central America; it certified its first

flower grower in 2001 in Costa Rica. The familiar green frog on the label symbolizes environmental health and appears on a variety of products. The organization's vision and mission extend to helping growers and forest communities adapt to the climate crisis.

[www.rainforest-alliance.org](http://www.rainforest-alliance.org)

## Veriflora Sustainably Grown



Veriflora is a certification specifically designed for floriculture and ornamental horticulture. It is administered by SCS Global Services, an international firm that provides

certification and validation services to a wide variety of industries, working in some cases with other certification programs including GlobalG.A.P.

[www.scsglobalservices.com/services](http://www.scsglobalservices.com/services)

[veriflora-certified-sustainably-grown](http://veriflora-certified-sustainably-grown) ■

# Speaking the Sustainability Language

The subject of sustainability comes with many terms that may be unfamiliar or unclear. This glossary is a guide to common terms as they apply to the floriculture and horticulture industries.

**biorational** Non-pesticidal products or biopesticides that cause no harm to humans or animals and do little or no damage to the environment.

**biodiversity** The variety of living species within an ecosystem, or on the Earth, including plants, animals, bacteria, and fungi. Biodiversity is essential to a healthy environment because each organism plays a role in capturing and storing energy, and producing and decomposing organic matter. Since all types of agriculture tend to reduce biodiversity, a primary objective of sustainable flower farming is to support biodiversity on the farm and in the surrounding environment.

**carbon footprint** The estimated amount of carbon dioxide (CO<sub>2</sub>) and other carbon compounds that is produced and released into the atmosphere by an individual, a group, activity, or industry. Carbon dioxide and other carbon compounds in the atmosphere are primary contributors to global warming and climate change. The standard unit for measuring carbon footprint is the carbon dioxide equivalent (CO<sub>2</sub>e).

**carbon neutral** A state of zero net emissions achieved by offsetting emissions or eliminating emissions.

**carbon sequestration** The process of capturing, securing, and storing carbon dioxide from the atmosphere. Sequestration can happen through biological, geological, and technological processes to reduce the amount of carbon dioxide in the atmosphere.

**circular economy** An economic model that minimizes resources, waste and emissions during production and consumption. This approach includes reusing, repairing, and remanufacturing products.

**greenhouse gas** A gas that absorbs and emits radiant energy causing a greenhouse effect.

**greenwashing** Marketing messages or other communications that falsely convey an image of environmental responsibility for an organization or product.

## **integrated pest management (IPM)**

A strategy for controlling (rather than eradicating) pests that relies on mechanical and biological controls as a first resort, with minimal, responsible use of synthetic pesticides. This pest-control strategy allows for the use of synthetic pesticides if they are used in a way that is compatible with biologic controls. Biological controls include introducing beneficial insects to consume and thus reduce the presence of harmful insects. IPM has become an integral aspect of sustainable practices at many flower farms.

**life cycle assessment (LCA)** Analysis and evaluation of all the potential environmental impacts of a given product throughout its journey from producer to consumer to disposal.

**local** This term, as it is used to describe products sold within a given distance of their origin, has no widely agreed-upon definition. A 2008 amendment to the USDA's Consolidated Farm and Rural Development Act defined local as an item that was either produced within 400 miles of the point of origin or within the same state.

**organic** Produced without the use of artificial pesticides or fertilizers. In agriculture, this is the baseline definition; however, USDA standards for using this term as a marketing label are more specific. In broader use, "organic" can refer to standards that may encompass promotion of biodiversity and healthy soil.

**phytosanitary** Relating to, measuring, or controlling the health of internationally traded plants, vegetables, and fruits. Phytosanitary inspection certificates, administered by the USDA's Animal and Plant Health Inspection Service, are used to ensure exports are free of diseases and pests.

**regenerative agriculture** An approach to farming that places preservation and even restoration of the ecosystem above high crop yields. Regenerative agriculture aims to improve soil health, increase biodiversity, and aid in carbon sequestration, among other goals.

**social sustainability** A condition within a workplace or society in which the culture, processes, systems, and relationships promote equality and well-being, and meet the basic social needs of present and future members.

**sustainability** The condition in which an economic activity satisfies present needs without jeopardizing resources for the future. Today the term is also understood as a balancing of interconnected interests that include environmental responsibility, social responsibility, and economic viability.

**traceability** The ability of a product to be traced in a verifiable method in its journey along a supply chain.

**transparency** An organization, business, or supply chain's openness and visibility around the conditions and actions that have an impact on quality and sustainability.

**waste management** The collection, transport, treatment, disposal, and monitoring of biological, household, commercial and industrial waste with the purpose of reducing the negative effects of waste on the environment and human health. The process includes recycling and reusing.

**water footprint** A calculation of how much water is used, both directly and indirectly, in the production, supply and consumption of goods or services.

**water management** In agriculture, this term refers to managing and conserving the use of water to maximize quality and quantity while minimizing damage to the environment. Examples include preventing surface water pollution, collecting and using rainwater, and irrigating to concentrate water distribution. ■

*This glossary was developed using a variety of sources, from the U.S. Environmental Protection Agency and USDA to academic research and dictionaries.*

# Solar Panel for Sustainability

At Ball, our communities & the world!



"In our quest to breed new cut flower varieties, we are committed to the environment, as we work with renewable and clean sources of electricity produced at our two main sites in Colombia (R&D Station and propagation facility). Fifty percent of the kWh consumed has been sourced from solar panels, **while the excess 34% of the electricity produced is returned to the grid.**"

**Ball**SB  
CREATIVITY THAT BLOSSOMS

