

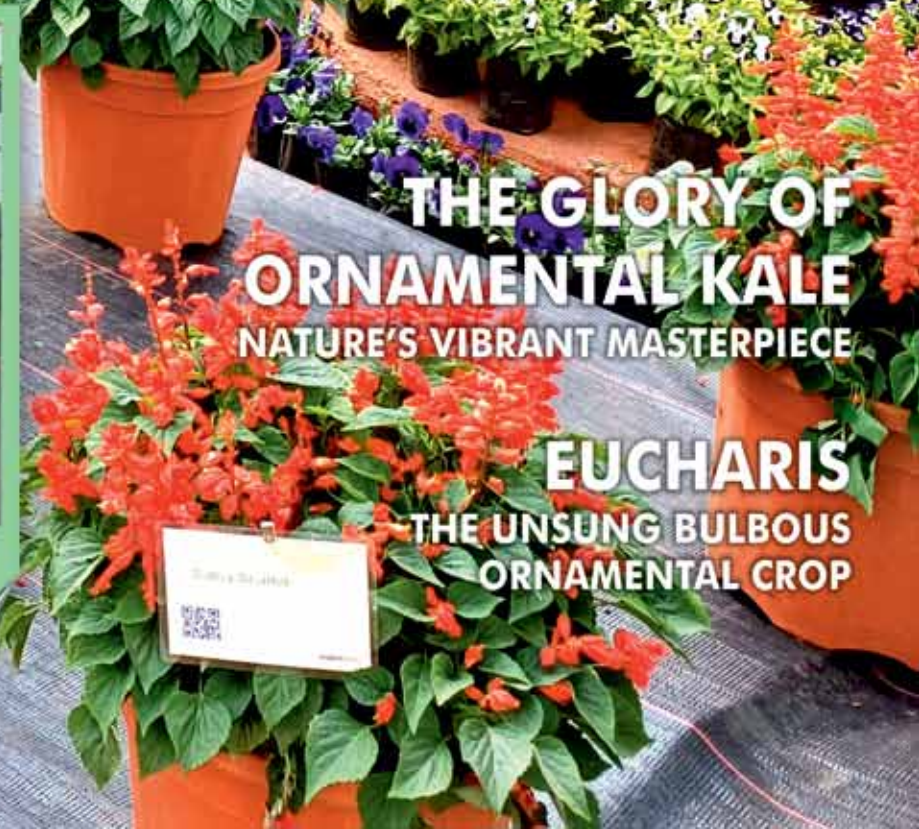
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Editorial

Winter's wrath may quickly transform a magnificent, blooming garden into a desolate, broken picture. Heavy snowfall and harsh winter weather subject your carefully designed outdoor containers and garden beds filled with trees, shrubs, and perennials to crushing weight and bone-chilling cold.



Fortunately, you can protect your outside plants from snow and ice damage with basic preventative care and frequent maintenance. Your established plants and seasonal containers will survive the winter and come back to life in the spring if you follow the recommendations offered here.

Choose cold-hardy types that can tolerate harsh winter conditions. By selecting hardy plants, you lay the groundwork for a garden that can withstand the winter months with minimum harm.

Be cautious when removing snow to prevent breaking branches or harming fragile stems. If the snowfall is too much for you to handle on your own, consider hiring a professional snow removal service.

Plants are deprived of sunshine and adequate air circulation when covered beneath heavy snow, potentially leading to poor development or even death.

Checking incoming weather forecasts frequently as winter approaches and advances is one of the most critical things you can do to protect outside plants from snow damage. These pose the most danger to fragile plants.

Knowing what is forecast ahead of time allows you to take precautionary measures before storms occur. This is also an excellent opportunity to acquire business snow removal services ahead of time.

Mulching is a simple yet efficient approach to insulating your plants. This protective barrier aids in soil temperature regulation, reducing fast temperature changes that might injure plant roots.

To safeguard your plants from severe snowfall, consider erecting temporary protective coverings around them. This will shield the plants from heavy snowfall while also creating a microclimate that retains some heat.

This additional covering will help to save heat, offer insulation, and protect the plants from frost damage.

When snow accumulates on your plants, resist the desire to yank it off. Remove the snow with a broom or a soft brush, moving from the bottom of the plant upwards.

Although it may appear paradoxical, proper watering of your plants during the winter is critical. Watering the plants on milder days helps them get the moisture they need to withstand the winter.

Inspect your exterior plants for weak or broken branches before winter arrives.

Remove any dead or weak branches that are prone to breaking under the weight of snow. Pruning also stimulates air circulation, which helps to keep fungal infections at bay throughout the winter months.

Despite your best efforts and safeguards, you may be surprised to see dead branches, broken stems, and parched foliage on your outside plants after a harsh winter. Many people may recover with adequate treatment, but it requires patience and time.

Don't be afraid to be optimistic. Begin by gently removing any dead or permanently damaged portions of wood to just above living wood or healthy buds. Then, to allow for new growth, remove matted leaves and debris.

To restore plant vigour, address any concerns as soon as possible and correctly. Allow nature to take its course during the spring. Take the time now to prepare your garden and get the benefits of a blooming landscape in the spring.

Comments are welcome at: editorialmtpl@gmail.com

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SYNGENTA'S COLOURFUL SUCCESS AT FIRST FLOWER TRIAL EVENT IN PUNE

Syngenta Flowers presented the first-ever Syngenta Flowers Show in Pune, Maharashtra, India, on 24th-26th November 2023, along with distributor Dhandeep Seeds and Shree Balaji Nursery.

This trial event coincided with the prestigious HortiProIndia 2023 International Exhibition & Conference, which attracted many growers to the region.

Anil Ambekar, owner of Shree Balaji: "Including all stakeholders from the flowers value chain, the audience included over 500 visitors. Flower growers from across India took the opportunity to see the innovative and tailor-made assortment that Syngenta Flowers selected for this event. Our team worked very well together with the team of Dhandeep Seeds and of Syngenta Flowers during the event to provide information and tips to

growers. Everybody enjoyed the face-to-face conversations on the unique challenges of growing in Indian conditions."

These conditions include hot and humid climates and local substrate mixtures with native soil, coir, and dried cow dung.

Performance

Gautam Sangle, Syngenta's Key Account Manager South Asia: "The extraordinary good plant performance was a great achievement of the technical team of Shree Balaji. But this also resembles the potential of the Syngenta Flowers genetics under hot conditions."

The hot and humid climate of Pune put the genetics to the test, with several heavy rainfall just a week before the show. Yet the resilient plants withstood these adverse conditions, which highlighted once again their genetic robustness.

The event not only

highlighted the top-quality genetics of Syngenta Flowers but also revealed the collective effort required for such a monumental initiative. Hosting this large-scale event for the first time required careful planning and a significant amount of commitment.

Dhruva Parekh, owner of Dhandeep Seeds Trading Company, reflects on a remarkably successful first event: "I am proud of the great event we built together. The location was decorated beautifully, and we had highly informative documentation for the growers. This was highly appreciated by the many growers who are searching for new innovative varieties to grow in their own production. It was useful for the growers to see for themselves what high quality can be achieved with disease-resistant genetics."

Highlights

The audience was impressed by the Vinca Cora Cascade XDR series, highly resistant to 20 isolates of *Phytophthora nicotianae*, including the ten most virulent strains that cause *Phytophthora* blight on annual Vinca. The mounded spreading habit makes the Cora Cascade perfect for summer baskets, mixed containers, and expansive landscape beds with a flowering that lasts all season long.

Besides that, visitors loved the vibrant Zinnias and commented on their impressive appearance. The Zydeco series especially stood out with its large, fully double flowers, displaying longevity and impact.

On top of that, the message that the Zydeco is strong with respect to disease resistance and heat and drought tolerance resonated well



with the audience, making it the perfect choice for both cultivation and garden performance.

Marigold Inca II again caught the eye. The guests were impressed by the well-branched, intermediate-sized plants with large double blooms, ideal for retail-ready containers—an excellent choice for adding color and filling spaces in sunny landscapes.

Marigold Antigua has already won over many growers and will continue to do so, recognized by its naturally dwarfed, branching habit and strong flower stems that do well in transport and in the garden.

Beautifying India

In India, bed and potting plant consumption for various occasions is increasing, and there is a growing trend

to beautify public spaces. Syngenta Flowers, along with its industry peers, aims to contribute significantly to the growth of the Indian flower industry.

The widespread appreciation of Syngenta genetics among Indian growers, especially in challenging climates, reinforces the brand's reputation for providing stronger genetics that form the basis for long-lasting, high-quality potted and bedding plants, enhancing the end-user experience.

The success of the Syngenta Flowers Show in Pune predicts a colorful future for Syngenta Flowers, which will leave a lasting mark on India's horticultural landscape.

Source: www.syngentaflowers.com





Jason Hough, Anne Laventry, Sean Valk, Manish Chakurkar, Dhruv Parekh



CULTIVATING GLOBAL EXCELLENCE IN HORTICULTURE

In the realm of agriculture and horticulture, Rise n' Shine Biotech Pvt. Ltd. stands as a beacon of innovation and sustainability. Established in India, this pioneering company has been a driving force in revolutionizing the agricultural landscape through cutting-edge biotechnology and a commitment to excellence.

At the heart of Rise n' Shine Biotech's mission lies a dedication to harnessing science and technology to optimise crop yields, improve plant

resilience, and ensure environmental sustainability. Their unwavering pursuit of innovation has propelled them onto the international stage, where they have actively participated in key events such as Hortipro India 2023, the IFTF 2023 in Vijfhuizen, Amsterdam, Netherlands, and Profhora in Colombia in 2023.

Hortipro India 2023

HortiproIndia 2023, hailed as the premier horticulture expo of its kind, unfolded its brilliance in Pune from



Pepe, Ingrid, Sami with RNSB Team



November 23rd to November 26th, 2023, hosted at the Agricultural College Ground in Shivaji Nagar. This exposition proved to be a treasure trove of cutting-edge technological innovations across various horticultural domains, offering participating countries a platform to showcase their cultural richness, technological advancements, and distinctive visions.

With the Mrs. Yashashree Patil, Executive Director of Rise n' Shine Nursery LLP, the event witnessed the auspicious





Selecta one team and RNSB



Chairperson & Managing Director
Dr. Bhagyashree Patil with the gerbera variety
Alicia, at Proflora

launch of the ANA website and QR-based PCI Pro Software, a momentous ceremony attended by esteemed guests. The honour bestowed upon us by the Andhra Pradesh Nursery Association and the valuable award received is deeply appreciated.

Rise n' Shine Biotech significantly impacted Hortipro India 2023, showcasing their state-of-the-art advancements in agricultural biotechnology. Their exhibition focused on sustainable farming practices, introducing cutting-edge techniques for pest control, crop enhancement, and soil management. Visitors were captivated by their innovative solutions that aimed not only to increase yields but also to minimize environmental impact, aligning with global sustainability goals.

The event attracted horticultural professionals, plant enthusiasts, and visitors eager to explore the intricacies of landscaping techniques, gardening practices, and exotic flora sourced not only from Pune but also from various states across India and abroad.

Rise n' Shine extends gratitude to the Maharashtra Nurseryman Association, the Association of Environmental

Horticulture, the Hortipro India team, and their dedicated team members for their unwavering support and contributions to the success of the stall.

IFTF 2023, Vijfhuizen, Amsterdam, the Netherlands

Rise n' Shine Biotech Pvt. Ltd., marked a historic milestone by participating in the esteemed international exhibition, IFTF 2023, held in Vijfhuizen. The Netherlands IFTF provided them with a platform to display its expertise in production of tissue culture plants and Floriculture.

The event, graced by visitors from across the globe, witnessed a focal point of admiration - Rise n' Shine Biotech. They displayed a remarkable production capacity of over 45 million plants annually.

The spotlight gleamed upon discussions among genuine growers, visitors, and the company, all centred around the exceptional quality of plants cultivated by them in India. Notably, the participation of Ethiopian, Ecuadorian, Kenyan, and Colombian growers underscored the company's global reach and appeal, captivating international clients seeking new markets for expansion.



Anne Laventry from Ball SB



Foreign dignitaries Pepe, Ingrid n Eshwar with RNSB team

Adding yet another accolade to its illustrious collaborations, Rise n' Shine proudly announced its partnership with the esteemed Netherlands-based company, "Hi-Breeding," through Royalty Administration International. The agreement, focusing on the production and sales of Hydrangeas' cutting and finished Products, was signed during IFTF, facilitated by Mike Van Schie of Hi-Breeding, Maarten Leune, and Nick Leune.

Amidst fruitful discussions with existing collaborators at the booth, Rise n' Shine opened its doors warmly to foreign business partners and collaborators, expressing profound gratitude to all associates and visitors for their impactful interactions. Notable mentions encompass Dummen Orange, Ball SB, Selecta-one, Corn Bak, Danziger, Rijnbeek Perennials, Wageningen University & Research, Konst Alstroemeria BV, and Expert Communications, among many others, who contributed significantly to the event's success.



Expressing gratitude to Indian business associates and friends, including Tukai Nursery, Soex Flora, and several others, Rise n' Shine further extended its presence to the Trade fair Aalsmeer, fostering connections with industry stalwarts like K P Holland, Danziger, Dummen Orange, and Ball SB.

Proflora, Colombia 2023

Under the guidance of Dr Bhagyashree Patil, Chairperson & MD, Rise n' Shine Biotech emphasized its commitment to the Latin American market. Their presence highlighted collaborations with local farmers, offering tailored solutions to address region-specific agricultural challenges. Their showcase of biotechnological innovations tailored for crops indigenous to the region underscored their dedication to supporting sustainable agricultural practices worldwide.

At the event, the team forged invaluable connections with potential clients seeking high-quality TC



Black- Tulip-Kenya, Vishal Mehta with RNSB team



Danziger-Gabi, Anat, Inna

Plants' laboratory production. This expedition provided profound insights into producers' expectations and market demands, enriching the team's understanding of industry dynamics.

A significant contingent of Indian business associates travelled to the Proflora Expo in Colombia, renowned as one of Bogota's premier floral trade shows.

Proflora Colombia celebrated a diverse array of floral varieties, acknowledging excellence within the industry. We proudly announce the remarkable achievement of Rise N Shine's gerbera variety "ALICIA," securing the esteemed



Dr. Bhagyashree Patil, Mike Van schie of Hi-Breeding, Maarten Leune and Nick Leune at the IFTF 2023

second position in the fiercely competitive Gerbera Category.

Innovation, Sustainability, and Global Impact

Rise n' Shine Biotech's international engagements reflect its core values of innovation and sustainability. By participating in these prominent events, the company not only showcased its technological prowess but also fostered collaborations, knowledge-sharing, and partnerships across borders. Their commitment to leveraging biotechnology for sustainable agriculture has positioned them as a frontrunner in the global horticulture industry.

Future Outlook

Looking ahead, Rise n' Shine Biotech continues to forge ahead on its path of innovation and global impact. Their unwavering dedication to sustainability, coupled with their relentless pursuit of cutting-edge agricultural solutions, signifies a promising future for the company and the global agricultural landscape.

Under the esteemed leadership of Chairperson & Managing Director Dr Bhagyashree Patil, Rise n' Shine continues to be lauded nationally and internationally for its vast infrastructure, commitment to quality production, and unwavering dedication to customer satisfaction.



Dr. Bhagyashree Patil with Selecta-one team- Sander Ulrich, Miss Andrea Dohm, Felipe Gomez & Jordi



Indian business associates and friends
- Tukai Nursery Jagtap & family



Selecta One Felipe Gomez at RNSB booth

Rise n' Shine Biotech Pvt. Ltd.'s participation in Hortipro India 2023, IFTF 2023 in Vijfhuizen, Amsterdam, and Proflora in Colombia in 2023 not only showcased their technological advancements but also affirmed their commitment to sustainable agriculture on a global scale. As they continue to push the boundaries of biotechnology, their influence in shaping the future of agriculture remains profound.



Konst Alstroeneria BV- Henk Van der Voorden, with Dr. Bhagyashree Patil and Shravan Kamble GM Floriculture



Marcel van Vemde, Director Rijnbeek Perennials at RNSB booth



Lisa Van Duijnhoven from Florensis & Elita from Floraldaily with RNSB team



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Trade fair Aalsmeer with Business partner Danziger Ms. Anat Moshes & Dr. Bhagyashree Patil



Dummen Orange, Nick Bennett Director, APAC



RNSB Team with Wageningen Universit & Research

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Rise n Shine Biotech Stall at IFTF 2023



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220-ACRE DWARKA PARK LIKELY TO OPEN BY MARCH NEXT YEAR: DDA

— Snehil Sinha

The Bharat Vandana Park in Delhi, which will feature replicas of important monuments from different states, is expected to be ready for the public by March 2023. The park is being built at a cost of Rs.524 crore and will have various zones including cultural and adventure sports facilities. It will also feature eco-friendly measures such as rainwater harvesting and solar power generation.

The Bharat Vandana Park, which is being developed in Dwarka's Sector 20 and spread across 220 acres, is expected to be ready for the public by March next year, the Delhi Development Authority (DDA) officials aware of the matter said on Friday.

Conceptualised as a "mini India" with replicas of important monuments from different states of the country, the park has been planned as a new landmark for Delhi residents and is being built at a cost of Rs.524 crore, they added.

Home minister Amit Shah laid the foundation stone of the park in December 2019. Initially, the project deadline was in March 2022, which was postponed to early this year due to the Covid-19 outbreak. However, with further delays in getting environmental clearances, the park was expected to be ready by December this year, which has now been pushed



to around March next year, DDA officials said.

Lieutenant governor VK Saxena on Friday said, "It is coming up beautifully and some of the key structures are nearly complete. The portion that has replicas of monuments from all states is a personal favourite. The beauty is that they are using the same construction material for the replicas that has been used to actually build these monuments. So, if a monument is built of sandstone, the replica here has been made using the same material."

The park will have eco-forest zone, several lakes, cultural and adventure sports facilities. Also, the "Mini India" park will be dotted with 36 replicas of important monuments from all the states. The replicas will include the Sun Temple in Odisha, Charminar (Hyderabad) in Telangana, Kashi Vishwanath temple and the ghats of Varanasi in Uttar Pradesh, caves of Ajanta

and Ellora in Maharashtra, Viceregal Lodge of Himachal Pradesh, Victoria Memorial of West Bengal, Golghar from Bihar and Hawa Mahal (Jaipur) from Rajasthan.

Apart from the "Mini India" park that is shaped in the form of the country's map, the site is divided into different leaves of a lotus flower, each having its own function and special elements.

"Different binding elements such as sky bridges, walk along the wall and water canals add a unique feel to the park. The 'Vandana Sarovar' at the centre acts as a focal point to the site and will also help in creating micro-climate within the premises. It aims at environment-friendly measures such as efficient rainwater harvesting system, generation of power through solar, recharging of landscaped area and zero net discharge," said a senior DDA official requesting anonymity.

As per the plan, the park will have 10 zones, including congregational, cultural,

Pushpa Kriti Sarovar, eco-sensitive, meditation garden, fun park, adventure park, lake view restaurant, 'Mini India' and Vandana Sarovar. Officials said each zone will be shaped as a lotus leaf and will be spread over 10 to 12 acres.

"There are also some features that will connect through the entire park like a toy train and sky walk. The water bodies may also be interlinked to facilitate boating through the entire area. We are trying to ensure net-zero discharge so that all of our waste is processed internally, especially the horticulture waste," said the DDA official.

There will be a dedicated area for food plazas and restaurants, including one situated on a higher platform that will be overlooking the many water bodies and lake. Officials added that the green precincts will also include congregational zone, cultural zone and tree walk and will feature excursions such as boating, zip-lining, animal animatronic zoo, musical fountain and light show. Division of various activities in various zones is expected to create independent active nodes within the overall site with observatories on pylon structures. ■

Source:
www.hindustantimes.com

EUPHARIS

THE UNSUNG BULBOUS ORNAMENTAL CROP

— Devarai Lava Kumar, M. K. Singh, Babita Singh, Ritu Jain, Vanlalruati, Prativa Anand, A. K. Tiwari., Rhine, T.



View of the plant- Amazonian Lily

Eucharis is a bulbous perennial and a fragrant flowering member of the Amaryllidaceae family. The genus is commonly referred as Amazonian Lily as it is, seen chiefly distributed

in the regions of western Amazon basin and adjacent lower slopes of the eastern Andes. *Eucharis* is marked by its attractive crateriform or campanulate flowers, curved perianth tube, pigmented



Amazon lily in gardens

androecium usually developed into a staminal cup, and unicellular stigmatic papillae. It unites about 20 species of bulbous evergreen perennials consisting 15 to 20 species. Among them the species, *Eucharis amazonica*, *E. formosa*, *Eucharis x grandiflora*, *E. plicata* are the common ornamentals.

Botany: *Eucharis* is a perennial flowering geophyte. These species have subterranean bulbs 2–6 cm in diameter with two types of roots i.e., branched contractile and monofilament types. The leaves are large basal ovate lanceolate, dark green, shiny, with a well-marked central venation, about 33 cm long and 16 cm wide, petiolated (30 cm). Flowers are similar to daffodil flowers, but these are larger. They are delicate and fragrant, white in color, they grow on long and thick



In pots

erect stems that protrude from the brilliant foliage. In late winter or early spring, a leafless stalk rises above the leaves, carrying up to 6 nodding white campanulate flowers of 3 to 6 in number, borne in an umbel of three to ten on an erect scape 40–80 cm long with a smooth fragrance, paraperigonio (cup or false crown) formed by the stamens



Flower arrangements by the use of Amazon lily



Bridal bouquet



In vases

and stigma trilobed, long, turgid, globose or ellipsoidal and with black head seeds which are not viable for propagation.

Ornamental species diversity: The genus *Eucharis* encompasses a wide range of species, and the characteristics of individual species can vary

considerably. Some popular species include

***Eucharis amazonica*:** Cultivated and commonly confused with *E. x grandiflora*. This species is at least partly sterile. Plant flowers at least twice a year, July-August and December-March. Flower fragrance is sweet and spicy and


seems stronger during the day. Viable seeds have never been produced and the population is thought to be a single clone.

***Eucharis formosa*:** It is a variable species native mostly to Ecuador, Peru and Colombia. It flowers from January-March. Floral

fragrance is slightly fetid.

***Eucharis x grandiflora*:** It is a natural hybrid of *Eucharis moorei* x *Eucharis sanderi* that is often confused with *E. amazonica*. It is found from Colombia to Ecuador. The flowers are white and have fragrance.


***Eucharis plicata*:** It is native



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from Peru to Bolivia. It is found on the understory of wet primary forests. This species is one of the easier ones to grow of the genus. Bulbs can bloom several times a year.

Ornamental uses: Amazonian Lily can be used as excellent cut flowers and garden ornamental. It makes an elegant addition to a shady corner with its glossy broad leaves and striking white flowers. They can be planted among other small plants in rock garden and have also been used as a groundcover planted two to three feet apart. It is an excellent houseplant that may bring beauty to interiorscapes everywhere in the world, despite the fact that it is only hardy in tropical climates. They look very pretty when planted in semi-shady situations along water rivulets, in informal situations for a naturalized effect and amidst stones and rocks. It can be used in preparation of excellent flower arrangements like bouquets, vases and table arrangements.

Cultivation aspects:

Soil and Climate: The Amazon lily prefers a well-drained, organic-rich soil consisting of good loam, leaf mould and cow-dung manure with the addition of some charcoal is beneficial. For optimal results, keep the soil evenly moist and feed it periodically during the growing season. Plants usually bloom once a year. It blooms better in crowded surroundings, whether in a container or in big, outdoor clumps, and can be left undisturbed for many years. It should be kept on the dry side during the winter to stimulate flowering. Allowing the plant to dry out just a bit

and withholding fertilizer can induce additional bloom.

Amazonian lily is a thermophilic plant and prefers semi-shady situation. The period of active vegetative growth of *Eucharis* occurs in the summer and prefers the temperature regime ranging from 18 -23° C. Flowers need bright diffused light at least 3-4 hours a day and must be shaded from burning midday rays. During November to January, *Eucharis* should be exposed where temperature is between 13-15° C while temperature of 18-20° C is ideal for peduncle formation. Propagation and planting: *Eucharis grandiflora* is normally propagated vegetatively by daughter bulbs/offset which arises in the axils of bulb scales. Bulb sizes of 30 to 50 mm are generally used for planting of *Eucharis grandiflora* for cut flower purpose. The best time for planting is September and October. Three bulbs are planted in a 25 cm pot. All the decayed matter and soil are removed from them at the time of planting. They are placed in shade and watered copiously. New growth starts in October and November.

Fertilization: Regular feeding must be done during the growth period using fertilizers with a high nitrogen content to build up the bio mass. Top dressing may be done with potassium-phosphorus fertilizers to encourage flower stalks and abundant flowering. Feeding is not required during the dormant period. The feeding procedure is carried out once in every ten to fifteen days.

Irrigation: During the active vegetative growth, irrigation should be done thrice a week

and done once in late autumn and winter when the plant is at rest. Irrigation may be reduced after flowering for about 2- 4 weeks to allow the plant to rest but the soil should not be allowed to dry out completely. During flowering period, irrigation should be avoided as even the slightest droplets can cause brown spots on the petals.

Leaf cleaning: It is important to remove dirt and dust from the surface of leaves to ensure no blockage of their stomata, and to allow better gas exchange with the environment. A soft sponge or cloth may be used for cleaning purpose. Practised generally in the case of indoor ornamentals.

Diseases and Pests: High temperature and low air humidity contribute to the appearance of pests. Though *Eucharis* is resistant to most diseases and pests, it is prone to fungal disease "red burn". The symptoms appear as longitudinal red spots on leaves. Damaged plant parts should be soaked in a solution of copper sulphate or other copper fungicide. Gray rot developed in conditions of high air humidity, low temperatures and waterlogged soil. Bordeaux liquid, 'Topaz' and 'Champion' preparations may be applied.

Eucharis are prone to damage by aphids, spider mites, thrips and scale insects. They suck out cell sap, the leaves lose colour, dry out and fall off. Affected leaves should be dipped in soapy water and then treated with 0.1% Actellic insecticide solution. For mechanical cleaning of pests, the leaves are wiped with a soapy sponge.

Eucharis Mosaic Virus causes mosaic like symptoms

on leaves more frequently on *E. grandiflora*. Management of aphid infestation using prophylactic sprays of systemic insecticides may control the severity of disease. *Eucharis* Mottle Virus causes leaf mottling. May be transmit through bulbs or by mechanical transmission. Clean cultivation, soil sterilization and bulb treatment prior to planting may possibly control the disease.

Flowering and yield: Flowering starts from December and continues to February. Each plant produces 4 to 6 flowers per year.

Harvesting and Postharvest Management: Flowers are harvested with the long stem when 1 to 2 flowers open fully. After harvesting, flowers are pre-cooled and treated. Then graded according to length and packed in bundles and marketed. After the flowering season i.e., by the end of spring, watering is withheld. By May and June, the leaves die down completely. Lifting has to be done for raising plants elsewhere. It is preferable to plant the separated bulbs immediately after division. The rate of sprouting of the stored bulbs is low.

Bulbs are stored in peat at 68 degrees F (20° C). The bulbs must be packed in moist peat, wrapped in polyethylene and packed in trays which for storage and shipping. Bulb forcing is done for 6 to 8 weeks at 2° C before planting.

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Ornamental Kale used in Landscaping

"THE GLORY OF ORNAMENTAL KALE NATURE'S VIBRANT MASTERPIECE"

— Babita Kanwar, Shreedhar Beese,
Dr. S R Dhiman, Neha Grace Angel Kisku

We might not have noticed, but decorative kale is experiencing something of a boom right now. Landscapers in huge numbers find these startlingly vivid kale plants to be quite helpful in the fall and early winter. At Disney's Disneyland thousands of world kale plants are frequently planted. In restaurants across the country, hundreds of acres are planted, the nation where they are placed as edible under lays or decorations on opulent salad platters.

The kale, also known as borecole, is a variety of cabbage in which the center leaves do not group into a head. In comparison to most domesticated varieties, it is thought to be closest to wild cabbage. Numerous vegetables, including broccoli, cauliflower and brussels sprouts are found in the genus *Brassica oleracea*. Spring greens and collard greens are within the cultivar botanical variety group *Acephala*, which means "headless," and are genetically quite similar.

Therefore, decorative kale



Ornamental Kale used in garnishing dishes



Crinkle-edged Kale



Feather-leaved Kale



Round-leaved Kale

and the more well-known broccoli, cabbage, and other cole crops belong to the same genus (*Brassica*) and species (*oleracea*). Additionally, it shares the same genetics as kale, a vegetable garden staple grown for its delicious greens. Plant breeders used edible kale types to create ornamental kale by choosing plants with distinctive foliage hues. Kale ornaments are still edible, but because of their stunning hue, they are typically added to seasonal color regions of a landscape or used as a garnish for prepared dishes.

Varieties: The newest kinds, referred to as leaf peonies, are primarily Japanese-made. For gardeners and professional landscape care businesses, these beautiful bedding plant's uniformity in size, color and pace of growth is a definite advantage. Crinkle-edged, feather-leaved and round-leaved are the three different leaf varieties. The latter resembles a collard or cabbage and may even be referred to as "ornamental cabbage." Each variety has centers that are either red, pink or creamy white. Planting at least two varieties for contrast is customary.

Types of kale:

1. **'Color-Up Pink'** (*Brassica oleracea* 'Color-Up Pink'): The cultivar 'Color-Up



'Pink' features minty-green leaves with a blush center and an upright growth habit that looks perky in the garden.

2. **'Osaka Red'** (*Brassica oleracea* 'Osaka Red'): An outer ring of purple leaves surrounds a vibrant magenta center on this stunning ornamental cabbage cultivar. These vigorous plants have compact heads that reach eight inches across and one foot high.



3. **'Condor'** (*Brassica oleracea* 'Condor'): The unusual long stems of the 'Condor' ornamental cabbage make it a florist's favorite. Plants grow up to 30 inches high,



but the heads are petite and look best planted in groups of eight or more.

4. **'Pigeon White'** (*Brassica oleracea* 'Pigeon White'): The creamy white centers of 'Pigeon White' look like the icing on a cupcake and have just as much taste appeal to some vegetable garden pests.



History: Asia Minor or the eastern Mediterranean are where kale is indigenous. It existed in 100 AD when the Greeks, Romans and the earliest Christians all utilized them in their cooking. Since the plants were traded and dispersed by barbarians, it is difficult to determine from where kale originated. Kale, which has calcium, vitamin C and beta-carotene, is frequently cooked and consumed. The foliage could be steamed, stir-fried, blanched or added to soup. The plant's roots are poisonous.

Though botanically a biennial, ornamental kale has a two-year life cycle despite being classified as an annual in common usage. It generates reproductive growth

(flowers) in the second year after producing vegetative growth (leafy growth) in the first. Practically speaking, gardeners appreciate it for its vegetative growth rather than reproductive growth. In the garden, it is cared for as an annual and transplanted each year.

Health benefits: Kale is well known for its many health advantages. They include a lot of antioxidants that defend against cancer and heart disease. It also has a lot of fiber, which supports the maintenance of a healthy digestive system and blood sugar levels. In milder locations, kale is simple to cultivate and is available from late winter to early spring. There are three types of kale: decorative, dinosaur, and curly. The most common kind of kale is curly, and it is widely available in markets. It has a fibrous stalk and ruffled, deep-green leaves. It has a strong, spicy flavor. Salad savoy, often known as ornamental kale, can be green, white or purple, with a growing stem forming a loose head. This type, which has a milder flavor and more delicate leaves than curly kale, is used in landscaping but is also edible.

Dinosaur kale features dark blue-green, grain-imprinted leaves that are also referred to as lacinato or Tuscan. Compared to curly kale, its flavour is a little bit sweeter and more delicate. Kale can be kept in a sealed plastic bag in the crisper of a refrigerator for up to five days. Before keeping the kale, do not wash it. During storage, the flavor will develop over time. Kale tastes finest when properly prepared. Break off the woody stem while

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cooking kale, then thoroughly rinse the leaves under cool running water. Slice the stems into quarter-inch lengths and the leaves into half-inch pieces. Add some lemon juice to the kale to increase its nutritious value, then let it stand for five minutes before steaming.

Kale chips are a tasty and simple to make snack. Set the oven's temperature to 350 degrees. Wash the leaves, then tear them into 3-inch pieces, discarding the stems. On a baking sheet covered with parchment paper, spread out the kale. Olive oil should be lightly drizzled over the kale before choice seasoning, such as salt, garlic powder, pepper or onion powder is added. Bake for 10 to 15 minutes, or until the edges of the kale are browned but not burnt. Kale and other greens can be frozen for extended storage while retaining the highest quality possible. Before freezing, give the kale a two- to three-minute water blanch, then drain and package carefully. The quality of pressure-canned kale is not as good as it would be if frozen.



Kale chips

General care: Due to its very decorative nature and vibrant pink-hued core leaves, ornamental kale (*Brassica oleracea* var. *acephala*) has minimal exposure on the Brazilian market but has the potential to

be used as potted greenery color, as well as the ease of manufacture. Ornamental kale is popular in nations other than the U.S. already available for sale and well-liked by consumers.

To ensure plants compact and attractive, intense color and excellent performance during post-production, it is necessary to use and proper management of plant growth regulators. The plant growth regulators over than enable compaction plant, a characteristic desirable for potted ornamental kale, interfere in the intensity and color maintenance foliage, influencing the content of chlorophyll and anthocyanin. Several factors affect the response of plants to application of growth regulators, and the optimal concentrations vary depending on the cultivar, environmental conditions, the stage of plant development at the time of application, method, frequency and number of applications and cultural practices.

Timing must be exact in order to grow any of the decorative kales to perfection. Coloration doesn't start until nighttime lows frequently fall below 60 °F, and it takes three to four weeks to fully color. When it's time to color, the plants must be almost fully grown. Plan to cultivate the kale plants from seeds in containers for at least two months before moving them about the landscape. 75 days before the start of the chilly evenings, sow seeds and germination occurs in around 10 days at 70°F. The plants should be placed five to six inches apart from one another. This maintains tiny heads necessitate elongated stems. When the plants reach six inches tall, remove the bottom leaves. It can take a few tries for them to start coloring. Stake plants after they reach a height of 10 inches.

The plants won't have much color till it gets cooler. Frost and cold weather bring out the white, pink or red pigments, producing fantastic, vivid colors below 50°F. They can endure temperatures as low as 5°F after being acclimated, making them true cool-weather plants that may persist long into November and December.

When buying ornamental kale or cabbage, search for big, compact plants

that are almost or completely colored. Even if the biggest plants will cost more, try to buy the size you want because, in general, plants won't become much bigger after planting in the garden, especially if the roots are attached to the pot.



Colder weather brings out more vibrant colors

Landscape use and Planting: *Brassica oleracea* L. var. *acephala* D.C., also known as ornamental cabbage, is a widespread potted bedding plant. In the home landscape, ornamental cabbage is a highly popular annual, especially in the fall and early winter seasons when other plants are senescing. This is due to its aesthetic value, particularly its appealing colored foliage. Use kale as bedding plants to provide color and contrast to the landscape. For a change in the landscape, they can be put in amongst other plants. Kale performs best when planted 10 to 12 inches apart in full light from early October through November. Late October is when flowering begins and as long as daytime air temperatures remain above 40°F and rarely exceed 80°F, throughout the winter. Mums and possibly pansies frequently come to mind when thinking of fall annuals. Unlike the majority of annuals that are planted in gardens during the growing season, in colder climates, ornamental kale does well. The plants can tolerate the cold after they've gotten used to it. temperatures of five degrees or less. Cold evenings in October and November will actually intensify the ornamental kale's distinctive blue-green outer leaves and vibrantly colored interior rosette. These vivid hues include white, pink, purple and even crimson.

For a durable fall display, ornamental cabbage and kale are excellent replacements for faded summer annuals. Try to place them so that we can see the vibrant centers. We can use them as border, in mixed or solitary container plantings or in bulk plantings. They look stunning at the front of a border, especially when mixed with fall-blooming perennials like

asters, tall, dark-leaved sedums or small bluestem grass (*Schizacrium scoparium*). Plant pansies along the perimeter of the container and an ornamental cabbage or



Crane series



Flare series



White Lady series



Mass planting of Ornamental kale are visually striking

kale in the middle for a simple yet lovely planting or try them with other plants that can withstand brief frosts such as petunias, Swiss chard or snapdragons.

Nutritional status: Utilize plenty of fertilizer and water to fast grow the plants. After the plants have grown to their full size, stop fertilizing to prevent improper coloration. Some potted plants, including decorative cabbage (*Brassica oleracea* L. var. *acephala* D.C.), frequently receive nitrogen fertilizer inputs that are higher than their actual needs. To improve nitrogen use efficiency (NUE) and lessen nitrate leaching-related environmental contamination, optimizing the rate of N fertilization and choosing N-efficient cultivars are crucial steps. Nutritional requirements, particularly N, must be determined in order to generate high-quality ornamental plants. In areas where crops are grown in soilless culture with nonrecirculating nutrient solution, nitrogen-nitrate ($\text{NO}_3\text{-N}$) is the main anion contributing to crop growth, but it is also one of the major contributors to horticulture-related pollution through leaching. Since farmers are wary of cutbacks in N treatment that could cause any yield and quality losses, many ornamental crops cultivated in greenhouses are actually fertilized excessively. This technique would prevent any nitrate shortage, but it would also result in wasteful N fertilizer use and higher levels of surface and groundwater pollution.

Despite the significance of decorative cabbage in the production of floriculture,

there aren't enough published data on the cultivar's N efficiency. Outdoor-grown ornamental cabbage cultivar Osaka white was the subject of a 2003 study by Gibson and Whipker, who found that fertilizing with 150 to 200 mg L^{-1} of nitrogen resulted in high-quality plants. There is a lack of knowledge regarding the impact of various levels of N, including "low-input" circumstances on various cultivars, particularly in soilless culture. The response of ornamental cabbage to N was only studied on one cultivar and utilizing three concentration levels.

Irrigation: Irrigate regularly until the plants are ready for transplanting. Then continue to irrigate as necessary.

Pest management and care: Pests that affect cabbage frequently also affect kale. Cabbage loopers, webworms, diamondback moths, harlequin bugs, and imported cabbage worms are a few of the parasites that attack kale.

Postharvest Handling:

- ❖ Heads will last 1 to 2 weeks in water after harvest.
- ❖ Head color may change gradually to green if plants face warm conditions.

The majority of garden centers and catalogs sell kale. Be picky when choosing decorative kale. Look for plants that are not root-bound or otherwise outgrowing their container to extend their lives as much as possible in your fall garden. selecting plants that are smaller than average or that are suitable for their container provides a terrific start for plants and raises the likelihood that they will endure far into the first frosts in the garden. When ornamental kale is sold, the name "ornamental cabbage" is often used, which is incorrect. Both varieties of cabbage are vividly colored, but only attractive cabbage forms a head and has broad leaves. While ornamental kale doesn't form a head and has deeply cut, ruffled leaves, the former has smooth leaves. ■

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DRY FLOWERS AND FLORAL WASTE A BOON TO FLORICULTURE INDUSTRY



The demand for dry flowers is high in both domestic and global markets due to their durability, low maintenance, and affordability in comparison to fresh flowers. India exports dry flowers to countries such as the USA, Japan, and Europe, making it the leading exporter in this industry. With access to a diverse range of plants, India

exports 500 varieties of flowers to 20 countries, earning nearly 100 crores annually. Many places of worship in India produce 20 tonnes of flower waste daily. Dr. Gadde Jyothi, a horticulture scientist explains how the sector offers an immense scope. Nalgonda (Telangana): India is gifted with varied soil and climatic conditions which gives immense scope for

the cultivation of various horticultural crops including fruits, vegetables, flowers, spices and condiments.

Dry flowers have a lot of demand both in Indian and International markets as they are long-lasting, easy to maintain and inexpensive compared to fresh flowers. Dry flowers are sent from India to countries like the USA, Japan and Europe as the nation stands first in dry flower export owing to the availability of a variety of plants. India earns nearly 100 crores per year by exporting 500 varieties of flowers to 20 countries. Many places of worship generate 20 tonnes of flower waste on a daily basis in the country.

Flowers like Globosa, Helichrysum, Acrolinum, Celosia, Cocks comb, Cotton, Gypsophila, Statice, Lavender, Larkspur and Roses are best for drying. Dry flowers can last for 2-4 years depending upon the flower type and ventilation. Flowers can be dried by air drying, hot air oven drying, microwave oven drying, Glycerine method

and freeze-drying methods. In India, so many rivers and lakes are getting polluted due to dumping of floral waste which may not only clog up the water channels but also release chemicals into the water thus becoming a health hazard for living flora and fauna.

Floral waste is one of the biggest pollutants on land and water in India since these flowers are offered in prayers and as such are considered holy and not disposed of in dustbins. So they get dumped into the nearest body of water, usually a river or lake. The river Ganges is dumped with nearly eight million metric tonnes of flower waste every year from temples and mosques, according to UN Climate Change. In Hyderabad alone, nearly 1000 metric tonnes of flower waste is generated in the places of worship.

In areas where there is no access to rivers or water, flower waste is simply left in large piles on streets or thrown in landfills. This causes different types of problems i.e.,

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increasing carbon emissions and other types of air and soil pollution. Entrepreneurs from different parts of India have come to the rescue over the past few years by collecting and cleaning these discarded flowers and turning them into usable products such as organic compost and more valuably soaps, candles, potpourris, shadow boxes, window boxes, photo frames, incense sticks, greeting cards, perfumes, handmade paper, Rose water, rose oil, Jasmine concrete, Tuberose concrete, rose gulkand essential oils, teas, medicines, biofuels, biogas, pigments and natural dyes.

The unused parts of dried flowers can be used for

making compost. The extracts of Mahua flowers are used in the food industry for making jams, jelly biscuits and other food products due to their nutritional components. Flower petals of rose, Jasmine, chrysanthemum etc. are rich in antioxidants flavours hence used in making herbal teas which are having a lot of demand in the market.

Flower recycling not only frees the water bodies from pollution but also provides an employment opportunity to many individuals for the preparation of value-added products of dried flowers. Edible dried flowers are delicious in cakes and other desserts and many dry flowers are used in making

herbal teas as they are rich in antioxidants. Dry flowers are long-lasting and easy to maintain and inexpensive compared to fresh flowers. The gross margins for the dried flower business are typically around 65% which can make it more challenging to incur new expenses and maintain profitability.

There are many advantages of recycling flower waste which reduces waste sent to landfills and incinerators, prevents pollution, conserves natural resources, conserves energy, reduces carbon emissions and creates job opportunities for the rural women and youth. Floral wastes can have important applications in

biosorption which will help in the treatment of wastewater and other industrial effluents.

Hence dry flowers have wide scope of use especially for unemployed youth, homemakers and rural women as countless valuable items can be made utilizing dry flower technology. It can start up with a limited-scale industry where women can act extraordinarily to build up new business sectors by creating awareness of dry flower technology through seminars, workshops and training. ■

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Source: www.etobharat.com*

FLORICULTURE EMERGES AS EXCELLENT ALTERNATIVE SOURCE OF LIVELIHOOD IN THE HILLS

Darjeeling: Arpan Emmanuel Rai gave up his 10-year-old job with an NGO to grow plants as a commercial venture and he has no regrets. Many like Rai have etched success stories of floriculture as an alternative means of livelihood in the Hills of Darjeeling and Kalimpong. Floriculture can be promoted along with tourism in the Hills, feel many.

"There is immense prospect of floriculture in the Hills. After having quit my job with an NGO, I took this up. I have started expanding my business. There is a lot of scope both locally and pan India. I have an outlet in Darjeeling. The plants are in great demand among the locals as well as tourists. I even sell plants online, pan India. Not only as a commercial venture, I enjoy the joy of creation, engaging in hybrid and cross pollination, getting new shades of flowers," stated Rai.

Sylvester Rai, of Liza Hill, Darjeeling is another success story. He is known all over the globe as the "Howorthia Breeder" for his success in breeding rare Howorthia plants. He had taken up floriculture commercially in 2007 and has helped around 100 families of Liza



Hill to take up floriculture commercially. Now Liza Hill has its own local flower market.

"People should engage in growing those plants that don't grow in the plains. Those who have less space should grow rare plants like rare Queen Anthurium that sell for thousands of rupees. Darjeeling Hills are excellent for growing Astrophytums and Phylodendrons. Chrysanthemums have excellent local markets whereas Agelia can be sold pan India, Nepal and Bhutan," stated Sylvester Rai while talking to Millennium Post.

A three-day-long Darjeeling Flower Festival organised by the Sonanda Floricultural Society was a runaway success and an eye opener.

"There were 28 stalls in the second edition of the flower festival organised this year. Many plants were sold off as

soon as they were put on display. The government should create a "local to global platform" for the plant growers. At present we can take our plants upto Siliguri, a distance of around 70 km. If adequate infrastructure, including warehouses, logistic support, soft loans we will definitely create a niche in the global market," stated Rashik Chhetri, organiser.

"Floriculture can go hand in hand with tourism. Along with tourism, the government can also promote floriculture of the Hills. There is immense prospect owing to the climate, specially for growing the English variety of Chrysanthemums.

A Flower Zone or a flower market can be promoted in these parts," suggested Rajiv Bhowmick, judge for the flower competition of the flower festival.

"Every household in the Hills grow flowers so why not take this up commercially. We can definitely do wonders if we take up floriculture as a livelihood. With this in mind we started the flower festival," added Rajat Thakuri, organiser.

Source: www.millenniumpost.in

BLOOMING SUCCESS

THE ROSE PRODUCTION LANDSCAPE IN INDIA

Roses, with their timeless beauty and symbolic significance, have been cultivated for centuries, transcending cultures and geographies. In India, the art of rose cultivation has flourished, making the country a significant player in the global rose production industry. This article explores the rose production areas in India, shedding light on the factors contributing to the success of this fragrant and lucrative industry.

Bangalore, Karnataka - The Silicon Valley of Roses:

Known as the "Silicon Valley of India," Bangalore, in the state of Karnataka, is also a prominent hub for rose cultivation. The city's moderate climate and favorable soil conditions make it conducive to growing a variety of roses. Numerous rose farms in and around Bangalore specialize in cultivating hybrid tea roses, floribunda roses, and miniature roses. The availability of skilled horticulturists and modern farming techniques has propelled Bangalore to the forefront of rose production in India.

Pune, Maharashtra - Blossoming in the Western Ghats:

Pune, situated at the foothills of the Western Ghats in Maharashtra, is another key player in the Indian rose production scene. The region's mild climate and well-drained soils provide an ideal environment for



growing high-quality roses. Pune's rose farms are known for producing a wide range of rose varieties, catering to both the domestic and international markets. The city's proximity to major urban centers also facilitates efficient transportation of roses to markets across the country.

Ooty, Tamil Nadu - The Queen of the Nilgiris Blooms:

Nestled in the picturesque Nilgiri Hills, Ooty in Tamil Nadu has earned the moniker "Queen of the Nilgiris" and is celebrated for its enchanting landscapes and, notably, its rose gardens. Ooty's cool climate, with mist-laden mornings and moderate temperatures, is particularly conducive to rose cultivation. The Government Rose Garden in Ooty is one of the

largest rose gardens in India, showcasing a breathtaking collection of rose varieties. Local farmers also contribute significantly to the region's rose production, making Ooty a floral haven.

Hosur, Tamil Nadu - A Rising Star in Rose Cultivation:

Hosur, located on the border of Karnataka and Tamil Nadu, has emerged as a rising star in the rose cultivation landscape. The region's proximity to Bangalore and its favorable agro-climatic conditions have attracted many farmers to venture into rose cultivation. Hosur's rose farms are known for their production of high-quality roses, contributing to the overall growth of the floral industry in South India. The adoption of modern agricultural practices has further enhanced the

productivity and quality of roses in this region.

Jaipur, Rajasthan - Roses in the Desert:

Jaipur, the capital city of Rajasthan, is renowned for its vibrant culture and historic architecture. Surprisingly, it has also carved a niche for itself in rose production despite its arid climate. The city's rose farms utilize advanced irrigation techniques to cultivate roses in the desert landscape. Jaipur specializes in cultivating the famous Damask roses, which are highly valued for their aromatic properties. The unique combination of traditional farming knowledge and modern technology has allowed Jaipur to thrive as an unexpected yet significant player in the Indian rose industry.

Conclusion:

India's rose production areas showcase the country's diverse agro-climatic conditions and the adaptability of rose cultivation across regions. From the technological prowess of Bangalore to the scenic charm of Ooty and the unexpected floral abundance in Jaipur, each area contributes uniquely to India's standing in the global rose market. As the demand for quality roses continues to rise, these production areas play a crucial role in meeting both domestic and international requirements, making India a blooming success in the world of rose cultivation. ■

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HOW TO GROW AND CARE FOR PORTULACA (MOSS ROSE)

With showy and colorful rose-like flowers from June to first frost, *Portulaca grandiflora*, or moss rose, is a favorite for its easy cultivation and fast growth.

A bright and beautiful sun-loving plant for borders, containers, and edging, these tough succulents are also drought and heat tolerant – which makes them an excellent choice for rock gardens and xeriscapes or as a ground cover for hot, dry areas.

The single or double flowers come in pastel shades or intense hues of mauve, orange, pink, red, white, or yellow with petals of a delicate crinkly texture.

Closely related to common purslane (*P. oleracea*), portulaca is highly useful in poor soils where other plants struggle, and handy as a fast grower for filling in bare spots.

And it's highly attractive to pollinators such as bees and butterflies but is left alone by the likes of deer and rabbits.

Resilient and built for heat, are you thinking your garden needs some moss rose this summer?

Then join us now for all the details on how to grow portulaca!

Here's everything we'll go over up ahead:



What Is Portulaca?

Moss rose, *Portulaca grandiflora*, is a succulent species of flowers in the Portulacaceae family.

Multi-branched and low-growing, the rose-shaped flowers grow on terminal tips and are held above prostrate stems in small clusters.

The light green, needle-like leaves are plump and

fleshy for water storage.

Flowers measure up to one and a half inches wide with single or double, crepey petals surrounding clusters of bright yellow anthers.

Moss rose comes in richly saturated colors of fuchsia, magenta, mauve, orange, salmon, peach, pink, red, purple, white, and yellow, with some bicolors that have

contrasting splashes and splotches.

And there are also cultivars in the same palette but in more subdued, pretty pastel shades.

These fast-growing succulents have a creeping or trailing habit. They grow up to nine inches and can spread up to 24 inches, but 12 to 14 inches is more common.

Some compact varieties have a tidier form, growing six to eight inches tall with an eight-inch spread.

With species plants, the flowers are nyctinastic, meaning they only open in bright sunlight, then close at night and remain closed on cloudy days. However, most of the newer hybrids are bred to remain open even with cloud cover.

After flowering, small kernel-like seed pods form containing tiny black seeds that disperse freely once ripe, reseeding in favorable conditions.

It should also be noted that portulaca contains calcium oxalates which can be toxic to cats, dogs, and horses.

Cultivation and History

Moss rose, also called Mexican rose, portulaca, rock rose, purslane, sun rose, and eleven o'clock flower – for its punctual habit of opening at 11 a.m., when the sun is high in the sky – are native to the rolling plains of Argentina, southern Brazil, and Uruguay.

This species has escaped

cultivation in many areas and naturalized in mild regions of the Americas, Australia, Europe, and other frost-free locations.

The genus name *Portulaca* derives from the Latin word for little door (*portula*) and is thought to refer to the way seed pods open, like a flip-top.

The species epithet, *grandiflora*, is a combination of Latin words meaning large flowered.

Grown as an ornamental annual in temperate areas, moss rose is hardy only in USDA Zones 10 to 12.

Most seeds are sold in packets as colorful blends and mixes in single or double flowering forms.

And unlike other *Portulaca* species, such as *P. oleracea* and *P. umbraticola*, moss rose is not considered edible because of its bitter taste.

Portulaca Plant Propagation

Moss rose is easily propagated by sowing seed or rooting cuttings.

From Seed

Seeds can be sown early indoors and transplanted out once nighttime temperatures remain above 60°F, or direct sown in the garden. Blooms appear about 45 days after sowing.



To start seeds indoors, sow six to eight weeks before the last frost in your area.

Fill seed cells, trays, or small pots with a finely textured compost or starter soil mix.

Carefully scatter the small seeds over the soil and just barely cover with one-eighth of an inch of soil – go easy with the cover soil as they need some light to germinate.

Water lightly and place trays in a bright location. Maintain temperatures of 70 to 75°F.

Keep the soil lightly moist and seeds will germinate in seven to 21 days.

Once seedlings have two sets of leaves, thin plants to one per cell or three inches apart.

When the seedlings are three to four inches tall,

harden them off for at least one week by placing them in a sheltered spot with afternoon shade for increasing amounts of time each day.

Hardening off helps to toughen plants and reduces the chance of transplant shock and sun scald.

To direct sow outdoors, wait until soil temperatures reach 65°F.

Clean and rake well-draining soil amended with compost or manure. Add granite chips, landscape sand, or pea gravel to improve drainage if needed.

Scatter the tiny seeds evenly over the soil surface – mixing the small seeds with landscape sand can help to distribute them more evenly.

Barely cover the seeds with soil and water gently. Keep the soil moist until they

germinate.

Once seedlings have two sets of leaves, thin to three inches apart. As the plants mature and spread, thin to 12 inches apart.

From Cuttings

Take four-inch cuttings from the outside perimeter of plants, choosing nonflowering stems.

Pinch out spent flowers or seed heads and remove leaves from the bottom half of each cutting. Dip in rooting hormone if desired.

Fill four-inch pots with a moist, finely textured compost or starter soil.

Insert stems up to the first set of leaves and firm the soil gently around them before watering lightly.

Place pots outdoors in a bright, protected location with afternoon shade and keep the soil lightly moist. Roots should form within seven to 14 days.

After new growth appears, gradually move plants into full sun then plant out in containers or the garden.

How to Grow Moss Rose

Moss rose gives the best performance when grown in a full sun location in humus-rich, well-draining soil with a gritty or sandy texture, and slightly acidic to neutral pH of





5.5 to 7.0.

Once established, plants do well in dry, lean soils, but they flower best if planted in humus-enriched soil and receive regular moisture.

Prepare the planting site by amending the soil with a shovelful of well-rotted compost or manure.

Mix in a shovelful of granite grit, landscape sand,

or pea gravel to improve drainage if needed.

Stir in one or two tablespoons of bone meal for strong, healthy roots.

Set seedlings in place with the crown just below the soil surface and backfill, gently firming in place. Space 12 inches apart.

Water gently to settle, then water again when the top inch of soil is dry and allow the soil to dry thoroughly between water applications.

After plants are established, when they reach double their planting size, water only when the top two inches of soil dries out. The shallow root systems of moss rose are susceptible to root rot in wet soils.

In areas with hot, dry soil, moss roses can go longer without water, but they take on a leaner, leggier form and produce fewer flowers as they get by on internal moisture stores – water as outlined for plump, floriferous plants.

For container growth, use pots and planters with drainage holes. I cover the holes with a two-inch layer of drainage materials such as broken pottery or pebbles.

Fill containers with a humus-rich and well-draining soil with a sandy or gritty texture.

Our succulent soil recipe is ideal for potted *P. grandiflora*. Mix in one or two tablespoons of bone meal to promote healthy roots.

Set plants in place and gently firm the soil over the root zone.

Place containers in a full sun location and water when the top inch or two of soil is dry.

For mixed container plantings, ensure all other

plants have the same low water and full sun requirements.

Growing Tips

Moss rose is an easy-care species and the following tips help ensure productive, healthy plants.

- ❖ Ensure the soil is well-draining.
- ❖ Allow the top inch or two of soil to dry out between water applications.
- ❖ Plants are not heavy feeders and require little supplemental feeding if the soil has been enriched at planting time.

Pruning and Maintenance

At planting time, amend the soil with compost or manure as outlined in How to Grow above, or scatter a balanced, slow-release fertilizer over the soil.

Avoid overfertilizing, as this can result in lush foliage but fewer flowers.

A granular organic all-purpose plant food with a 5-5-5 NPK is available at Burpee.

A second feeding can be applied in midsummer if plants are grown in lean or poor soil.

Flowers are self-cleaning and don't require deadheading but they can be removed to prevent unwanted self-seeding. Otherwise, seeds can be collected at any time throughout the summer as soon as they ripen.

Plants can be pruned in midseason should they become leggy or straggly. Use the trimmings to quickly start new plants.

Use clean, sharp scissors or shears to cut plants back by half for a tidy appearance and to promote full growth.

After pruning, apply a half-strength solution of a liquid or

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water-soluble fertilizer with a balanced formula, such as 10-10-10 NPK – use a half-strength solution so plants quickly produce new growth but don't become lanky.

Avoid overwatering and wet soil which can cause root rot.

Moss Rose Cultivars to Select

P. grandiflora seedlings are readily available in the annuals section of your favorite garden center or you can purchase seed to start your own.

Seeds are most often sold in mixed blends of single or double flowers – the following selections all offer double blooms.

This Double Blend is a compact variety with flowers in brilliant colors of cherry, orange, red, rosy-pink, white, yellow, and pastels that grow four to eight inches tall and spread eight inches.

Seed packets are available at Botanical Interests.

The Color Carousel Mix has a trailing habit that features double flowers in fantastic shades of hot pink, scarlet, and sunshine yellow on plants growing six to nine inches tall and spreading 12 to 14 inches.

Packets of 50 seeds are available at Burpee.

Double Mix spreads and trails with flowers in bright shades of fuchsia, orange, scarlet, white, butter yellow, and sunshine yellow. Plants grow up to eight inches tall and spread 12 to 14 inches.

Seeds are available at Eden Brothers in a variety of packet sizes.

This Dwarf Double Mix has flowers in canary, carmine, ivory, fuchsia, peach, and salmon, growing three to

nine inches tall and six to 12 inches wide.

Seeds are available from True Leaf Market.

Managing Pests and Disease

Moss rose is mostly problem-free, but there are a few issues to be on the lookout for.

Sap-sucking aphids are the most common insect problem, causing yellow foliage and overall plant decline.

A strong spray from the garden hose is usually enough to get rid of them.

You can also use predatory insects like ladybugs and green lacewings for aphid control, or an insecticidal soap for persistent infestations.

Green lacewing eggs are available at Arbico Organics.

Slugs and snails can also cause damage as they chew through leaves and foliage.

Locate plants in full sun to minimize visits from slugs and snails, and handpick to dispose of any you see. You can find plenty more tips for dealing with these hungry gastropods in our guide on how to protect your garden from slugs and snails.

Generally disease-free, root and stem rot can be a problem in wet soil.

Ensure plants are grown in well-draining soil and allow it to dry to a depth of one to two inches between water applications.

Best Uses for Portulaca Flowers

Moss rose makes a bright and durable choice as a bedding plant or seasonal ground cover.

These plants make a bold statement when massed as an edger in beds and borders, and being heat lovers, they make a smart choice for

bordering heat-absorbing areas like asphalt, bricks, and concrete.

Fast growing, they're excellent when interplanted with spring bulbs, quickly filling in bare areas with color as the bulbs die back.

The creeping, colorful habit makes a pretty choice for tucking between rocks, flagstones, and pavers, or stuffing into cracks in a rock wall. Note that they cannot handle foot traffic.

Moss rose makes a sensational trailer, dripping bright colors over the edge of hanging baskets, patio pots, and window boxes or cascading down rockeries and over retaining and rock walls.

Their drought tolerance makes this species a natural for bare or hot areas where other plants struggle and in xeriscapes as well.

Use standard size varieties for trailing, spreading, or

spilling and the compact ones for stuffing and tucking.

Colorful and Easy

Fast growing, brightly colored, and drought tolerant, moss rose is an excellent choice for many garden settings.

These easy-care annuals aren't demanding as long as they're planted in well-draining soil with full sun. And they can also be grown as perennials in Zones 10 to 12.

Give them these conditions, and you'll enjoy flowers all summer long – even in the hot, dry spots where nothing else grows!

How do you use *P. grandiflora* in the garden? Tell us about it in the comments section below.

And for more info on fast-growing, colorful annuals, be sure to read these guides next.

Source: www.gardenerspath.com



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HIREN L. JASANI & KUNAL H. JASANI

WHAT FLOWERS CAN YOU GROW IN A HYDROPONIC SYSTEM?



When it comes to growing flowers in a hydroponic system, the options are quite diverse. Hydroponics provides an ideal environment for flowers to thrive, as it allows for precise control over the nutrients, water, and lighting conditions that plants need to grow. Here are some flowers that are well-suited for hydroponic cultivation:

1. Roses: Roses are a popular choice for hydroponic growers due to their stunning beauty and long vase life. They require a well-balanced nutrient solution and ample light to produce vibrant blooms. With proper care, hydroponically grown roses can yield larger and more colorful flowers compared to traditional soil cultivation.

2. Orchids: Orchids are highly prized for their exotic and delicate blooms. Hydroponics offers a controlled environment that allows for optimal air circulation, humidity, and nutrient delivery, which are essential for successful orchid cultivation. There are many varieties of orchids to choose from, each with its own specific requirements, so it's important to research the specific needs of the orchid species you plan to grow.

3. Gerbera Daisies: Known

for their cheerful and vibrant colors, gerbera daisies are a popular choice for hydroponic flower production. They require a well-drained growing medium and a nutrient solution with a slightly acidic pH. With proper lighting and nutrient management, gerbera daisies can produce large, long-lasting blooms that are perfect for bouquets and floral arrangements.

4. Sunflowers: While sunflowers are traditionally grown in soil, they can also be successfully grown hydroponically. These tall and majestic flowers require a sturdy support structure to accommodate their height and weight. Sunflowers are heavy feeders, so it's important to provide them with a nutrient-rich solution to support their growth. Hydroponically grown sunflowers can yield larger and more vibrant blooms compared to their soil-grown counterparts.

5. Lilies: Lilies are known for their elegant and fragrant



flowers, and they can be successfully grown in a hydroponic system. They require a well-drained growing medium and a nutrient solution with a slightly acidic pH. Lilies prefer cooler temperatures and can benefit from supplemental lighting to ensure proper growth and flower development. There are various types of lilies available, including Asiatic, Oriental, and Trumpet lilies, each with its own unique characteristics and care requirements.

6. Carnations: Carnations are popular for their long-lasting blooms and wide range of colors. They can be grown hydroponically with great success. Carnations require a well-balanced nutrient solution and a slightly alkaline pH. With proper care and attention to lighting and temperature, hydroponically grown carnations can produce abundant and vibrant flowers that are perfect for floral arrangements and decorations.



7. Chrysanthemums: Chrysanthemums, or mums, are known for their beautiful and diverse blooms. They can be grown hydroponically to achieve consistent and high-quality flowers. Chrysanthemums require a well-drained growing medium and a nutrient solution with a slightly acidic pH. They also benefit from proper pruning and pinching to promote bushier growth and more prolific blooms.

It's important to note that each flower species has its own specific requirements for nutrients, pH levels, temperature, and lighting. It is crucial to research and understand the needs of the specific flowers you plan to grow in a hydroponic system. Additionally, providing adequate support structures, such as trellises or stakes, may be necessary for certain flowers that require extra support due to their size or weight.

Hydroponics offers a promising method for growing a wide variety of flowers. With proper care and attention to the specific needs of each flower species, you can enjoy beautiful and vibrant blooms throughout the year.

■

ETHIOPIA'S FLOWER BUSINESS IS SET TO TAKE A HIT DUE TO THE AMHARA CONFLICT

ADDIS ABABA — As an under-reported conflict escalates in northern Ethiopia's Amhara region, the country's horticulture sector looks set to become a major economic casualty.

Currently the world's fifth largest exporter of flowers, industry insiders said the country will likely experience a major slump in productivity due to dangerous skirmishes between federal troops and local militants in the country's second most populous region. The sector generated over \$650 million in revenue in 2022, according to the country's horticulture association.

Ethiopia's industry is expected to be hit particularly harshly during the busy holiday season set to start next month as activities at the majority of local flower plantations have stalled.

Know More

Last year, Ethiopia exported 2.7 million kilograms of flowers to the European market during Valentine's Day alone and the bulk of them were fresh-cut roses. The busy season occurs from December until June especially for celebratory occasions such as Christmas, Valentines and Mother's Day in Western countries.

At the beginning of the conflict in the Amhara region in August, the Amhara regional government said it had lost up to \$45 million, mostly from flower exports, alongside massive layoffs.

The Ethiopian Horticulture Producer Exporters Association (EHPEA) has demanded compensation from the federal government



which is itself already reeling from a fiscal crisis, as a result of damages incurred during the ongoing conflict.

The flower growers have also complained over spiraling insecurity and a hostile business environment, endangering their operations in the volatile northern parts of Ethiopia.

EHPEA's executive director, Tewodros Zewdie, told Semafor Africa the flower export business had made a significant contribution to Ethiopia's economy pointing out it is "only second to coffee" in revenue terms. He claimed the sector had created more than 200,000 direct and indirect jobs to the local economy.

Samuel's View

The Ethiopian government had placed high hopes on its export sectors as part of its Growth and Transformation Plan to make the Horn of Africa nation a middle-income economy by 2025. Part of the plan was to attract foreign investors and industries, such as European flower companies by offering them duty free access, loans and subsidized electricity and water in order to create jobs and reduce poverty.

some of the leading foreign investors in meat and textile export business have exited Ethiopia amid various conflicts, shortage of foreign currency, and the country's ejection from the favorable Africa Growth Opportunity Act (AGOA) trade pact with the United States over human rights violation during the civil war in the Tigray region.

There is fear here the flower farmers might follow. In 2016 and 2020, at the height of political crisis and uprising against the government in Addis Ababa, a number of flower farms in the Oromia region were destroyed and forced to close shop temporarily. ■

Source: www.semafor.com



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WEDDING DECOR DILEMMA SAY IT WITH TRUE FLOWERS AND FRAGRANCE, URGE FARMERS



Natural floral arrangements for marriage ceremonies cost a minimum of Rs.1 lakh, while artificial flower providers offer a budget-friendly alternative at Rs.5,000-10,000 by repurposing plastic blossoms. The increasing popularity of artificial flowers in weddings is causing concern among Pune's flower growers, leading them to advocate for a government ban, especially on large imports from China. However, some families planning weddings argue that plastic flower decor has significantly reduced budget expenses for already extravagant ceremonies.

— Radheshyam Jadhav

In the last few years floriculture in Pune district has shifted from sustenance production to commercial production.

"The surge in floriculture among farmers over the past decade, cultivating in open farms and modern poly and greenhouses, is facing a significant challenge," says Mukund Thakar, founder of Pawana Phool Utpadak Sangh, a group of farmers in the Mawal region of Pune district. He expresses concern over the industry's problems arising from the extensive import of artificial flowers now prevalent in marriage decorations.

Covering 55 acres, Pawana group specialises in growing roses, yielding one to two lakh roses and generating a monthly income of Rs.30-40 lakh. While exports contribute to their revenue, the local marriage market is a crucial income source.

Thakar points out that post-Covid-19, the industry, which has already been facing problems, is witnessing a concerning trend where artificial flowers are replacing fresh ones in marriage ceremonies. "The competition is steep, with fresh flower decorations costing Rs.1 lakh, while artificial flower decorators offer their services at a mere Rs.5,000. The

reusability of plastic flower sets adds to the challenge for traditional floriculturists. "How do we compete with them?" he asks.

Why plastic flowers?

Prassanna Patil is in the midst of planning his wedding ceremony, and his top priority is budget management, particularly when it comes to floral decorations. He asserts, "I can't make compromises on essentials like food, clothing, and the wedding venue. The only viable option is to trim expenses on floral decoration by opting for artificial flowers."

A substantial number of newcomers to farming are compelled to invest

Rs.70 lakh in setting up a polyhouse covering one acre. Seeking support, these farmers have reached out to the Union Government and are in discussions with local Members of Parliament. In a recent development, a delegation of farmers submitted a memorandum to Baramati MP Supriya Sule, urging her assistance in addressing their concerns.

Expressing her commitment, Sule stated, "I shall raise the issue of banning plastic flowers in Parliament. Furthermore, I have made a personal decision not to accept any artificial flowers or garlands crafted from these materials."

India's floriculture

The National Horticulture Database (2021-22) shows that the area under floriculture production in India was 2.83 lakh hectares, with a production of 22.95 lakh tonnes of loose flowers and 8.33 lakh tonnes of cut flowers.

India's total floriculture export was Rs.707.81 crore in 2022-23. Major importing countries were the U.S., the Netherlands, the United Arab Emirates, the U.K. and Germany. There are more than 300 export-oriented units in India. ■

Source: www.thehindubusinessline.com

“India's total floriculture export was Rs.707.81 crore in 2022-23. Major importing countries were the U.S., the Netherlands, the United Arab Emirates, the U.K. and Germany. There are more than 300 export-oriented units in India”

CHRYSANTHEMUM SHOW A TREAT FOR LUDHIANA'S FLOWER LOVERS



Pulling visitors back into the lap of nature, Punjab Agricultural University's 26th Chrysanthemum show commenced. At the varsity's Dr Manmohan Singh Auditorium, flower enthusiasts were greeted by a display of the map of Punjab and a 15-foot butterfly, all made with Chrysanthemum petals.

The show exhibited more than 4,000 potted Chrysanthemums and registered more than 300 entries from amateurs, educational institutions and flower lovers for the competition.

They competed in 11 classes including incurved, reflexed, intermediate, spider, decorative, single or semi double, pompon or button, anemone and spoon.

BCM Arya Model Senior Secondary School, DAV Public School, Delhi Public School, Sant Kirpal Singh Senior Secondary School and Guru Nanak Khalsa College for Women were few of the local institutions which competed for various classes of potted Chrysanthemum.

The maximum number of prizes were bagged by Delhi Public School. The overall best pot of the show trophy was bagged by Mohinderpal Singh.

Scores of flower lovers purchased garden tools and flowering plants from several stalls put up by nurseries.

Organised by PAU's department of floriculture and landscaping as well as the estate organisation, the two-day chrysanthemum show is dedicated to legendary Punjabi poet Bhai Vir Singh

who was an ardent lover of flowers.

Thousands of pots of newly introduced 19 multi-flora and Korean class chrysanthemum varieties were available for sale.

Former professor of floriculture, PAU and ex-national consultant of floriculture, agricultural and processed food products export development authority A P S Gill was the chief guest.

"Though the department has evolved nearly 200 varieties of chrysanthemum till date. With the introduction of 19 new varieties of multiflora, Korean and decorative group this year, the department has brought in floral diversity," added Parminder Singh, head of the agri varsity's floriculture and landscaping department.

We also published the following articles recently

The upcoming drama Like Flowers in Sand, titled Flowers Bloom Even in the Sand, is a fresh romantic drama set in Geosan, a city renowned for its love of ssireum, a traditional Korean wrestling sport. The show follows the journey of young individuals striving to make their mark in life within the world of ssireum. The narrative centers around Kim Baek Doo, a rising star in ssireum, and his first love, Oh Yoo Kyung. The newly released stills showcase Kim Baek Doo's presence, anxiety before a crucial match, rigorous workout, and earnest plea.

Punjab government schools will have no single or no teachers by March, making



it the first state in the country to achieve this. The number of teacherless or single-teacher schools has reduced from 3,500 to less than 600. All 20,000 government schools will have WiFi by March, with 4,000 schools already equipped. The Right to Education Act ensures free and quality education to students of all classes. The government plans to convert 117 government senior secondary schools into Schools of Eminence, with Rs 204.80 crore allocated for this purpose.

"I'm done, I'm over, I'm 86 years old, even in the dark I wouldn't want to be naked in front of anybody," Fonda said on a podcast. She also expressed her disapproval of older men dating much younger women. Fonda admitted to being attracted to younger men but stated that she would not act on it because she doesn't want to impose her older skin on anyone else. Despite the age difference, Fonda surrounds herself with younger friends and doesn't think about their age. ■

Source: www.timesofindia.indiatimes.com



Passionate tree lovers of the Taj city on Wednesday resolved to turn Agra into the “Bougainvillea capital” of India, in the next few years. Already large stretches along the MG Road, the Yamuna Kinara Road, and around the grand Mughal monuments are lined up with Bougainvillea vines exploding in a riot of fascinating colours.

The Bougainvillea crusader Mukul Pandya who has organised an exhibition of Bougainvillea plants, close to the Taj Mahal, told IANS that Bougainvillea is ideally suited for Agra, as the vines or bushes are sturdy, suited to the local agro-climatic conditions, requiring very little water and care.

The exhibition is drawing

enthusiastic tree lovers who are amazed by the variety and the mesmerising colourful feast offered by the Agra Horticulture Club.

A native of South America, Bougainvillea now finds patrons and lovers all over India. Pandya recounted the love story of a French adventurer and his girlfriend of the same name, who brought the colourful bushy plant from South America in the 18th century. “Essentially Bougainvillea is a genus of thorny ornamental vines, bushes, and trees belonging to the ‘Four O’clocks Family’, consisting of sepal-like bracts which surround the waxy colourful leaves of the plants that thrive in hot and dry conditions.

Of the around 300 varieties,

Pandya has successfully grown 100 varieties. He has succeeded in grafting single plants with several colourful strains.

“Some 50 years ago, I

began collecting different varieties and planted them on my terrace which eventually caved in due to the weight of flower pots. Agra has taken a fancy for Bougainvillea.





"Locals are planting Bougainvillea in a big way along boundaries, and open spaces. Several parks in the city have hundreds of Bougainvillea plants."

Ranjna Bansal, patron of the Club said that their dream is to turn Agra into a Bougainvillea capital.

"A campaign will be soon launched involving green activists, various government departments, NGOs and tree lovers," he said.

The Bougainvillea Exhibition 2023 was organised for the Horticulture Club of Agra by Lovely Kathuria, Daisy Gujaral, Renu Bhagat. More than 799 specimens of 100 cultivars in the form of vines, shrubs, miniature trees and bonsai, were on display.

Pandya said for the first time B Changi Airport, B Kayata, and Royal Dauphine, were put on display. The jury members included Manashi Ray, Shiv Kunzroo, and Mradul Pathak. The first prize went to Daisy Gujaral, second to Monica Agarwal, and third to Kanchan Ahuja.

Ankush Dave, a specialist

in conserving rare species of flora and butterflies, said that Agra's arid climate makes it an ideal place for propagating Bougainvillea which does not require too much care or water and is safe from marauding simian population.

Raman, member of the Supreme Court monitoring committee on pollution, assured all help and support to popularise planting of Bougainvillea.

Kamal Singh of the Agra Heritage Group said that due to the monkey menace, Bougainvillea has become an automatic choice for tree lovers, as the thorns of this ornamental plant scare the simians.

Over the years, the green cover in the eco-sensitive Taj Trapezium Zone has shrunk. The green cover in the Agra district is around 7 per cent, against the national target of 33 per cent.

"Though the state horticulture department and the forest department have been ritualistically planting millions of saplings every year, the results defy

visibility," said Padmini Iyer of the River Connect Campaign.

But now there was some hope, as the efforts of the

Agra Horticulture Club, to popularise Bougainvillea were yielding encouraging results.

■



DÜMMEN ORANGE'S PHALAEOPSIS TAKE THE STAGE IN TAIWAN FLOWER VARIETIES SHOWCASE 2023



Dümmen Orange's Phalaenopsis varieties took center stage at the prestigious Taiwan Flower Varieties Showcase 2023 in a dazzling display of floral excellence. Taiwan Flower Varieties Showcase, one of the most essential floriculture events in Taiwan, now in its third iteration, stands as a beacon of innovation and quality in the flourishing Taiwanese floriculture industry, with guidance from the Ministry of Agriculture Taiwan and the Agriculture and Food Administration.

Organized by the Taiwan Flower Development Association, Chinese Potted Flower Development Association, Taiwan Orchid Breeders Society, and Taiwan Flower Shops Association, this showcase is a testament to the industry's commitment to growth, diversity, and excellence.

The event's spotlight was undoubtedly on Dümmen Orange's Phalaenopsis variety F5842, orchestrated by the meticulous voting process facilitated by the Taiwan Orchids Breeder Society. This exceptional variety clinched the top spot in the commercial category within the 177 other Phalaenopsis varieties, securing the highest votes from Orchid professionals across the industry among the diverse regions represented. The evaluators for this evaluation activity are 42 representatives from various areas in Taiwan, including professionals and representatives from the flower and orchid trade,



business operation, and wholesale sectors. They participated in this global evaluation activity to assess trends worldwide in the seven major markets.

At the standard maturity level, this variety, with a pot diameter of 12 centimeters, exhibits dual stems bearing 17 flowers each, reaching a height of 75 centimeters with a flower diameter of 11 centimeters. The leaves stand upright. It is a hybrid of the black and red flower systems. The black system has a velvety texture, giving it a pearl-like sheen under light, while the red flower system enhances its vibrant and bright appearance. The combination of the white lip creates a rich and strongly contrasting overall color. Numerous generations of rare waxy varieties have improved the black flower system to achieve such outstanding commercial characteristics.

In addition, five other varieties from Dümmen Orange that participated in the evaluation also garnered significant votes in assessing major market trends. These five varieties are F4528 (North America, South America, Taiwan, and Southeast Asia), F5373 (North America and South America), F5497 (North America), F5251 (Southeast Asia), and F6960 (Europe).

CUT FOLIAGE SPECIALIST SUPPLIER ADOMEX TO LAUNCH ORCAEXOTICS AND ORCAFLORA AT TRADE FAIR AALSMEER

Dutch-based cut foliage specialist supplier Adomex returned to Trade Fair Aalsmeer to celebrate the launch of its newest product lines, OrcaExotics and OrcaFloral. At the same time, the company unveiled its refreshed Orca brand, including new packaging and a restyled logo.

Having made its debut in 2003, the company's OrcaGreen brand stands for cut foliage with consistent quality, including Aralia, Salal, leather leaf, Galax urceolata, Phoenix roebelinii, and Xerophyllum tenax (Beargrass). Products are available year-round and grown commercially or harvested in the wild.

In Adomex's stand 5.17 at this year's Trade Fair Aalsmeer, the new product lines OrcaExotics and OrcaFloral vied for the attention of attendees.

OrcaExotics comprises an exclusive selection of tropical flowers such as Fynbos foliage, Protea, Leucadendron and Leucospermum grown on farms or in the wild. These tropical flowers make ideal focal flowers in bouquets and arrangements.

OrcaFloral, in turn, features a range of quality filler flowers such as Gypsophila and Hypericum. These thrilling fillers add colour, volume, texture and whimsey in mixed bouquets.

All products sold under OrcaExotics and OrcaFlora are built on the same quality level that made the first OrcaGreen brand so successful.



Adomex sources its cut foliage and tropical flowers from the tropics and subtropics, including countries such as Guatemala, Costa Rica, El Salvador, Mexico, Ecuador, the USA, South Africa, Kenya and Portugal.

With the growers in these countries, Adomex has a tried and tested relationship based on trust and mutual respect.

Founded in 1977, Adomex is arguably one of the pioneers in cut foliage and has largely contributed to the product's stable ranking and image in the floriculture supply chain.

Adomex has its head office in Aalsmeer but also runs branches in Uithoorn, Rijnsburg, Honselersdijk, Ede and Stralen (Germany).

In 2017, the company acquired IEF Corporation in the state of Washington and since then has been a fully owned source of Salal harvested in the wild.



EXHIBITORS AND ATTENDEES HAIL THE SECOND LANDSCAPE ISTANBUL FAIR A SUCCESS



The three-day event happened at the Istanbul Trade Fair Centre, not far from the old Ataturk airport, and had an incredible display of trees, shrubs, garden plants, houseplants, and starter plants on the show floor, plus a two-day inspiring and thought-provoking World Urban Parks conference.

The conference boasted a line-up of international speakers. It included presentations detailing case studies and the latest thought leadership on critical issues for planning and maintaining parks and urban green spaces.

One such speaker was UK-based Paul Rabbitts, currently Parks and Open Spaces manager at Norwich City Council and founder and Chair of the UK Parks Management Association.

With a deep historical knowledge and a wealth of personal experience throughout the UK, Rabbitts demonstrated to delegates how we need a new 'revolution' in park building and management for the 21st Century.

He called for a more holistic approach to education, embracing today's many aspects of landscaping, the appointment of 'brand ambassadors' and a government champion, and collaborating with today's green influencers. He also urged for improved visibility of the sector and its people, strategic parks management and focus on the many health



benefits of urban green spaces when liaising with public health authorities.

Another international expert who shared his knowledge during the WUP conference was Stephan Treuke. In his 'The Emscher River Conversion - Flowing in the right direction' presentation, the project director of Emscherland - an inter-municipal park in Germany, chartered the journey of the restoration of the Emscher River and how the project evolved into a vital tool to counteract climate change and biodiversity loss for the entire region.

As an expert specialising in landscape architecture and urban forestry at the Delft University of Technology, Rene van der Velde focuses on developing climate-proof, healthy and resilient cities via fundamental and applied research in and around urban forestry and green infrastructure.

In Istanbul, he discussed the Urban Climate Arboreta project, the relationship between tree architecture(s) and heat stress mitigation, and the Atlas of Tree City Holland project, mapping the cultural-historical, socio-spatial and physical-ecological dimensions of the urban forest in lowland cities.

Dennis Habers, asset manager of Urban Green Spaces and Trees of the city of Rotterdam, explained how his city of 600.000 inhabitants faces significant challenges

such as climate change and loss of biodiversity in urban landscapes. He touched on the city's parks' role in water storage and urban heat island effect reduction. Water

and parks play a central role in Rotterdam, but the city also focuses on climate change's social, economic and ecological effects.

Source: www.aiph.org

ERNEST DANZIGER CELEBRATES HIS 100TH BIRTHDAY



It's celebrations all around for Israeli plant breeder and propagator Danziger this year. The company's founder, Ernest Danziger, celebrated his 100th anniversary on 16 November 2023. At the same time, it was 70 years ago that Ernest and his wife Zehava Danziger established their 3-acre plant nursery just outside Tel Aviv in a moshav (village in Hebrew) called Mishmar Hashiva.

It is safe to say that the couple could never have imagined that in 2023, Danziger would produce and sell more than 750 million plants and cuttings worldwide, adding colour and happiness in so many places worldwide.

In a statement, the company reflects on a century of a life well lived and celebrates "a hard-working and creative leader who is blessed with unwavering optimism. Ernest and Zehava have built an enduring legacy with their own hands."

Born a century ago, Ernest's journey commenced on the seat of a tractor, cultivating fields and dreams alike. From these humble beginnings, he sowed the seeds that would grow into a thriving company, a testament to his unwavering



determination and the belief that "in work, you will find peace."

The company highlights Ernest's ability to think outside the box, calling him "a true innovator, turning challenges into opportunities and setting the stage for the success of his team. His life story is a testament to the power of creativity, teamwork, and the importance of embracing unconventional paths in the pursuit of one's dreams."

Today, at the remarkable age of 100, Ernest is a great ping-pong player, an amazing testimonial for his agility and resilience in his personal and professional lives. "It is never as bad as it looks," he always reassures everyone, even in the recent challenging times.

Micha and Gaby Danziger, Ernest's sons, have run the company for the past 47 years, joined by Ori Danziger, the third generation, 12 years ago.

WITH NO TAKERS, SEVERAL TONNES OF VEGETABLES, FLOWERS GET DUMPED

Stocks that arrived were almost sold out as more retailers visited the market, say traders. They had sourced vegetables from other states like Karnataka and Andhra Pradesh but much of it had to be dumped as retailers from across the flooded parts of the city could not visit the market

Several tonnes of vegetables, flowers and other produce went waste at Koyambedu wholesale market as there were no takers owing to inundation across the city. However, wholesale traders noted stocks that arrived on Wednesday were almost sold out as more retailers visited the market.

Flood water in the Koyambedu market had drained. Traders had sourced vegetables from other states like Karnataka and Andhra Pradesh. But much of the stock had to be dumped as retailers from across the flooded parts of the city could not visit the market, traders said.

G.D. Rajasekaran, president, Federation of All Associations of Koyambedu Periyar Market, noted that nearly half of the 4,000 tonnes of vegetables had to be dumped as there were no takers due to heavy downpour and flooding. The situation improved as nearly



70% of the stock was sold as retailers started trickling in.

The cost of several vegetables had also dipped as the demand had plummeted. The market received about 300 truckloads of vegetables. V. Soundararajan, president, Onion, Potato Wholesale Merchants Association said one kg of cauliflower was sold for as low as Rs. 15 a kg to clear the stock. Many retailers from areas such as Saidapet and Velachery could not travel to the wholesale market.

Similarly, green peas were priced at Rs. 30 to Rs. 40 per kg. The price of vegetables, including potatoes (Rs. 18/kg) and carrots (Rs. 30/kg) has also dropped. Traders expect the sales to normalise as rains have receded in the city.

A ONE-DAY TRAINING PROGRAMME ON COMMERCIAL FLORICULTURE

ICAR- Directorate of Floricultural Regional Station Organised Training Programme on Commercial Floriculture at ICAR-DFR, Regional Station, Vemagiri, Andhra Pradesh.

Members from the Department of Horticulture, East Godavari district, Andhra Pradesh viz., Horticulture Officers, Horticulture Extension Officers, Village Horticulture Assistants, and



Zero Budget Natural Farming (ZBNF) members participated in the programme.

AGRICULTURE MINISTER P. PRASAD SCRIPTS SUCCESS STORY IN FLORICULTURE

People could buy flowers from the Minister's residence at reasonable rates during the Onam season. Prasad is also cultivating sweet potatoes and arrowroot.

It is dazzling to see marigolds and globe amaranth in full bloom around Agriculture Minister P. Prasad's residence at Cherthala.

Prasad who cultivated 2,500 marigolds and 250 globe amaranth with an eye on Onam began harvesting the flowers on Sunday. On scripting a success story in flower farming, the Minister said that seasonal floriculture was highly profitable. He noted that more flowers and vegetables should be grown locally.

People could buy flowers from the Minister's residence at reasonable rates during the Onam season. Prasad is also cultivating sweet potatoes and arrowroot.

Apart from Prasad, several individual farmers, women's self-help groups, farmer groups, and so on in Cherthala taluk especially in Kanjikuzhy block have undertaken the cultivation of marigold, Ceylon slitwort, globe amaranth, and so on in large tracts of land, eyeing the Onam demand for flowers. Many of the gardens are enticing visitors from far and near with people finding them ideal places for photoshoots.

In Kanjikuzhy grama panchayat, a significant producer of flowers in the region, floriculture has been undertaken on more



than 15 acres. "More and more farmers are taking up floriculture these days. They are trying their luck in flower farming as there is a huge demand for locally produced chemical-free flowers for laying floral carpets as part of the customary celebrations. We are giving all support to the farmers as producing flowers locally will reduce dependency on flower imports from neighbouring States," said M. Santhoshkumar, vice president, Kanjikuzhy grama panchayat

The harvest at Minister's residence was jointly inaugurated by Alappuzha district panchayat president K.G. Rajeshwari, District Collector Haritha V. Kumar, actor Beena Antony, and women heads of local bodies in the Cherthala Assembly constituency. Actor Anoop Chandran, Agriculture department officials, and people's representatives, also attended the function.

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