



ORGANIC FLOWER POWER: THE BLOOMING TREND IN SUSTAINABLE FLORICULTURE

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In a world increasingly concerned about environmental sustainability and chemical-free products, the floriculture industry is embracing a blossoming new trend – organic flower farming. Fuelled by rising consumer demand, particularly in major markets like the United States and European Union, more and more growers are turning to eco-friendly organic methods to cultivate beautiful cut flowers, potted plants, and other ornamental crops. Let's explore the principles, practices, and advantages of this sustainable approach to floriculture.

WHAT IS ORGANIC FLOWER FARMING?

Organic farming can be defined as "an integrated farming system that strives for sustainability, the enhancement of soil fertility and biological diversity while prohibiting synthetic pesticides, antibiotics, synthetic fertilizers, genetically modified organisms, and growth hormones." In the context of floriculture, this means using only permitted natural fertilizers, pest control methods, and growing media to produce cut flowers, flowering potted plants, foliage plants, flower seeds, bulbs, and other ornamental crops.

The basic principles are very similar to organic fruit and vegetable production. Growers avoid synthetic chemical inputs and genetically engineered seeds/plants in favor of organic fertilizers derived from animal

manures, compost, and mineral sources. Pest and disease management relies on cultural, physical, biological, and botanical controls rather than synthetic pesticides. The growing media for container plants utilizes substrates like coconut coir, peat moss, bark, and other organic components instead of soilless mixes with synthetic additives.

SOURCES OF ORGANIC NUTRIENTS

A key aspect of organic floriculture is using natural, eco-friendly fertilizers and soil amendments to provide plant nutrients. Some common organic nutrient sources for flower crops include:

1. Farmyard manure and composted animal manures (cow, poultry, sheep, etc.)
2. Vermicompost
3. Neem seed cake
4. Seaweed extracts
5. Green manures and cover crops
6. Plant and animal-based organic fertilizers

In addition to supplying major nutrients like nitrogen, phosphorus and potassium, many of these organic inputs also contain beneficial microbes and growth-promoting compounds that can enhance plant health.

ORGANIC GROWING MEDIA

Since many ornamental plants are grown in containers or raised beds, the

growing substrate plays a vital role. Some of the most widely used organic media components for flower crops include:

- 1.Sphagnum peat moss
- 2.Coconut coir (coco peat)
- 3.Compost
- 4.Aged pine or hardwood bark
- 5.Perlite
- 6.Vermiculite
- 7.Rock wool

These organic media ingredients are combined in different ratios depending on the specific crop and cultural requirements. For instance, epiphytic orchids may be grown in a mix of fir bark, perlite and sphagnum moss, while cut roses thrive in a blend of compost, cocopeat and perlite. The right organic substrate provides good moisture retention, aeration, and anchorage for healthy root development.

ORGANIC PEST AND DISEASE MANAGEMENT

One of the biggest challenges in organic floriculture is managing insect pests, pathogens, and weeds without synthetic pesticides and herbicides. Fortunately, growers have an array of eco-friendly tools at their disposal:

Cultural practices: Selecting appropriate varieties, crop rotation, pruning, sanitation, adjusting planting dates, using insect nettings or row covers, trap crops, and mixed cropping can help prevent and reduce pest and disease problems.

Physical/mechanical controls: Hand removal of affected plant parts, sticky traps, pheromone traps for monitoring and mass trapping of insect pests.

Biological control agents: Predatory and parasitic insects (lacewings, ladybird beetles, Trichogramma wasps), nematodes, microbial biopesticides (Bt, Beauveria, Verticillium, etc.)

Botanical insecticides/fungicides: Neem oil, pyrethrins, rotenone, plant extracts with insecticidal properties.

By integrating multiple organic management tactics, flower growers can maintain production while minimizing ecological impact.

BENEFITS OF ORGANIC FLOWER CULTIVATION

Improved quality and shelf life: Organic flowers tend to have better keeping quality, colour, fragrance and longer vase life compared to conventionally grown ones. This is attributed to the absence of chemical residues and better plant health.

Environmental sustainability: Organic farming reduces soil and water pollution from synthetic fertilizers and pesticides. It also promotes biodiversity by providing habitat for beneficial insects, birds and soil organisms.

Consumer appeal: There is significant and growing demand for organically grown, chemical-free flowers and plants, especially in markets like the US, EU, Japan and Australia. This creates lucrative opportunities for organic flower growers.

Resilience to climate stresses: Organically managed soils with higher organic matter can better withstand drought, soil erosion and other effects of climate change compared to degraded soils from conventional farming.

Premium pricing: Organic flowers and ornamental plants can command 20-100% higher prices in the market compared to their

conventional counterparts, offsetting the higher input costs.

THE ORGANIC FLORICULTURE INDUSTRY

While still a niche segment, the global organic floriculture industry has been expanding steadily over the past decade. According to estimates, the world market for organic ornamental crops like flowers, bulbs and live plants was valued at over \$200 million in 2020 and is projected to grow at a CAGR of 8-10% till 2026.

Major producers include the Netherlands, United States, Germany, Kenya, Ecuador and several other countries. Prominent organic flower crops include cut roses, tulips, lilies, orchids, chrysanthemums and potted foliage plants among others.

Some of the key challenges facing the organic floriculture sector include high labor costs, limited availability of approved organic inputs, technical know-how, infrastructure for certification and risk of pest/disease outbreaks.

However, continued research into breeding resistant varieties, optimizing organic growing media, organic pest control products, and developing efficient post-harvest handling protocols is helping make organic flower farming more viable and sustainable.

THE FUTURE OF ORGANIC FLOWER FARMING

Looking ahead, the future looks brilliant for the organic floriculture movement, driven by increasing consumer consciousness about sustainability and demand for chemical-free products. Some emerging trends and areas of focus includes:

- Urban organic farms and rooftop greenhouse production of organic ornamentals to serve local markets
- Efficient fertigation systems for optimal nutrient management in organic flower crops
- Developing suitable organic substrate mixes tailored to different flower varieties
- Exploring new botanical and microbial products for pest and disease control
- Improving post-harvest life and quality of organic cut flowers through specialized treatments
- Policy support and farmer training programs to facilitate wider adoption
- Development of organic flower tourism and farm-stays to educate consumers

As conscious consumers continue to make environmentally-responsible choices, the market for beautiful, sustainably-grown organic flowers and ornamental plants will keep blossoming and flourishing across the globe.