

THE PROFESSIONAL

Florist's Manual



Blossoms of Love | Discover the Elegance of Nature's Embrace

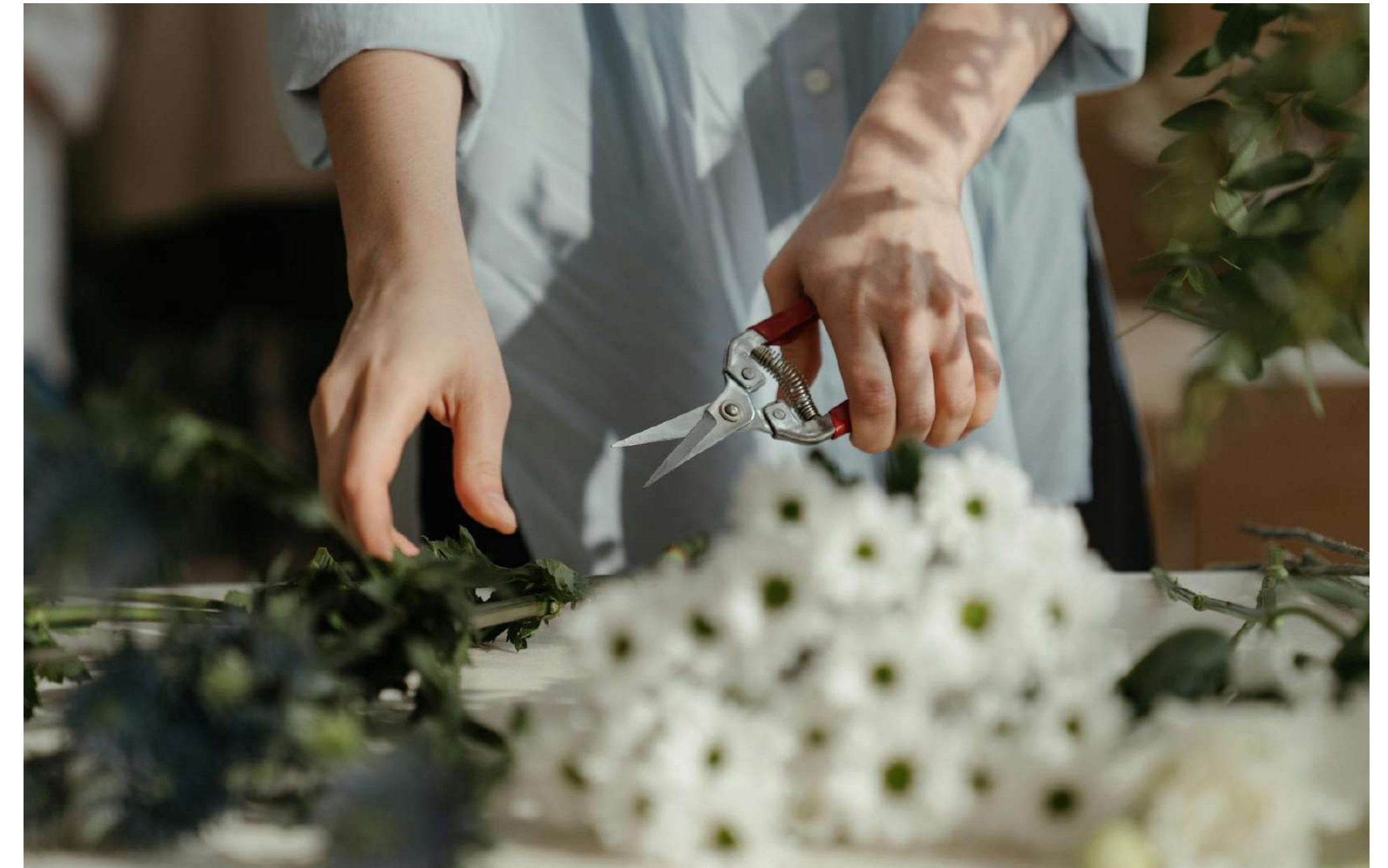




The Professional Florist's Manual

Welcome to "The Professional Florist's Manual," your comprehensive guide to ensuring the longevity and freshness of DM Flowers' cut flowers and foliage. In this manual, we will delve into the intricate details of flower care and handling, providing you with valuable insights and practical tips to enhance the beauty and lifespan of your floral creations.

Once you receive your order from DM Flowers, it's crucial to adhere to proper handling and storage practices to maintain the quality of our flowers. However, please note that while this manual provides valuable guidance, it is ultimately your responsibility to ensure the proper care and handling of our floral products. We recommend consulting with industry experts or seeking additional training if you are unsure about any procedures mentioned herein.



When a flower is not adequately cared for at any stage of its lifecycle, it will prematurely deteriorate. There are several reasons why a flower may perish prematurely. Here are some of the primary causes:

- Insufficient water absorption by the stem
- Deficiency in carbohydrates
- Excessive transpiration
- Growth of bacteria and onset of disease
- Exposure to ethylene gas
- Inappropriate environmental surroundings or conditions



Holding Temperature



When you receive floral deliveries from DM Flowers, follow these steps for optimal freshness:

1). Storage Temperature

- Store flowers in a cool environment, preferably air-conditioned.
- Avoid warm outdoor locations.
- Use a cut flower cooler instead of room temperature storage.
- Dry-packed flowers need immediate hydration to combat water stress.
- Keep fresh flower boxes horizontal in the cooler to prevent stem damage.

2). Floral Cooler Maintenance

- Maintain floral coolers just above freezing to prolong flower life.
- Low temperatures slow bacterial growth, respiration, and water loss.
- Maintain around 90% relative humidity.
- Regularly sanitize the cooler to prevent mould and mildew growth.

3). Temperature Management

- Ambient temperature affects flower respiration and aging.
- Higher temperatures accelerate aging.
- Rapid cooling and maintaining a cool chain during storage and transport slow aging.
- Lower temperatures reduce water loss and preserve freshness longer.
- Proper temperature control is vital for extending the vase life of cut flowers.



Sanitation

Maintaining cleanliness and sanitation in floristry is paramount to prevent the spread of pathogens. Various disinfectants, cleaners, and sanitizing solutions are available to ensure that workspaces, coolers, and overall shops remain clean. Cleanliness not only preserves the flowers' appearance but also communicates professionalism to customers.

Treatments

Processing cut flowers involves several treatments to enhance their vase life. Pretreatments, such as citric acid pulses, hydrate flowers efficiently and create an environment within plant cells that inhibits bacterial growth. High carbohydrate concentrations in some solutions benefit flowers with unfurling petals, while aluminium sulphate aids water uptake, particularly for wilt-sensitive flowers like hydrangeas.



Fresh flower food solutions containing carbohydrates, citric acid, and biocides provide energy to flowers, facilitate water uptake, and inhibit bacterial growth, respectively. Recutting stems exposes fresh tissue for water uptake, while chlorine in bucket solutions limits bacterial growth.

Post-Design Treatments

After arranging flowers, post-design treatments can further prolong their beauty. Anti-transpirants help seal leaves and petals, reducing water loss and wilting, while hormonal sprays encourage water uptake, promoting freshness in water-based arrangements.



Processing

Proper processing of cut flowers involves several steps, including preparing the processing area, checking incoming flowers for quality, removing packaging materials, cutting stems at a sharp angle to expose fresh tissue, and placing them in flower food solution immediately. Stems should be recut if necessary, and flowers should be left in the solution for at least an hour before refrigeration.



Remove all packaging materials from the cut flowers. This includes paper and cardboard wraps used on roses. Take care to cut the flower sleeves rather than tearing or pulling them. Be sure to separate plastics from compostable materials.

Keeping wrappers in place does not help flowers stay fresher longer, but they can help prevent mechanical damage caused by things bumping into the flower heads, petals, or leaves. Sometimes, leaving the wrappers in place can be a good idea (for example, if they will be transported to another site soon after receipt in the shop).

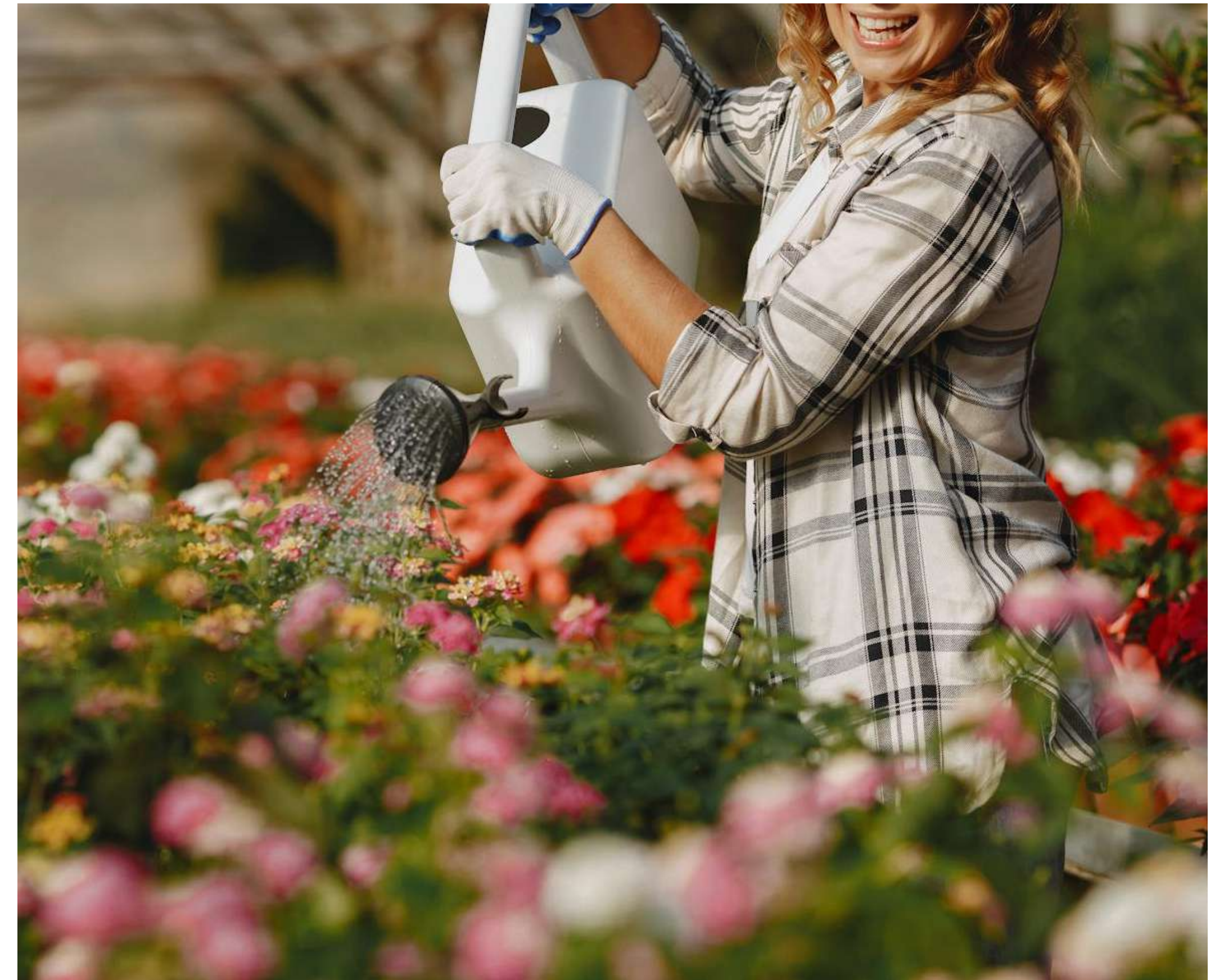


Ethylene Gas

Ethylene gas, produced by aging plant materials and certain fruits, can accelerate flower senescence and deterioration. Proper ventilation and ethylene inhibitors such as 1-MCP help mitigate the effects of ethylene exposure. Flowers are susceptible to various diseases, including grey mould, which thrives in humid conditions. Maintaining cleanliness, temperature control, and minimizing condensation are essential for disease prevention and minimizing losses.

Air Embolism and Bacterial Plugging

Air embolism occurs when air bubbles enter the stem at the time of cutting, restricting the flow of water and nutrients to the flower. Recutting stems under water and using acid solutions can help remove air emboli and facilitate water uptake. Bacterial growth in vase water can lead to stem plugging and reduced water uptake. Regular cleaning and disinfection of buckets, along with the use of biocides in water solutions, help prevent bacterial contamination and maintain water quality.



Light and Water Supply

While the presence of light during storage is generally not a concern, certain flowers may experience foliage yellowing if stored in darkness. Maintaining high relative humidity above 95% is crucial for minimizing water loss, especially for flowers with leafy stems. Adequate water supply and hydration techniques are essential for preventing wilting and maintaining freshness during storage and transportation.

Food Supply

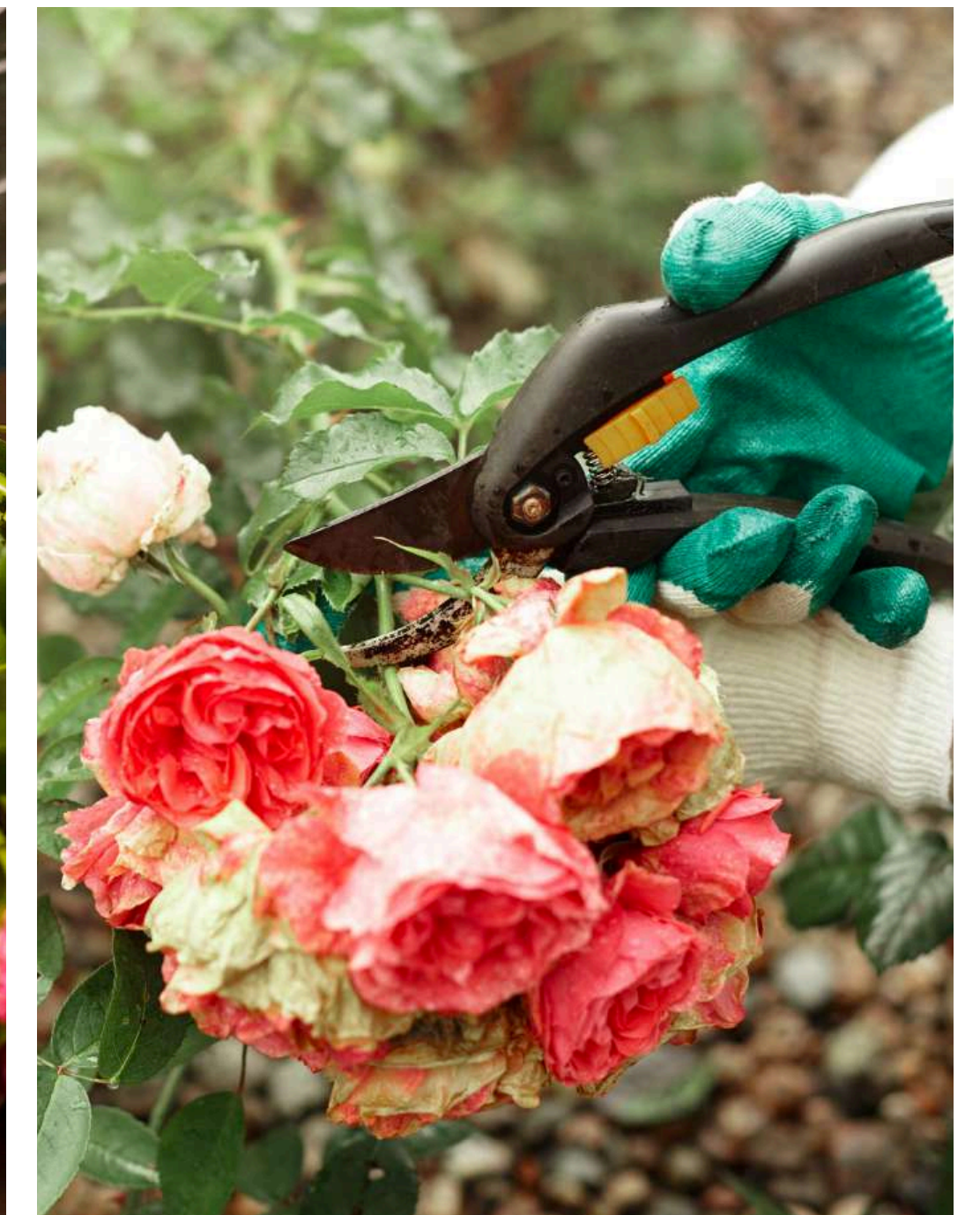
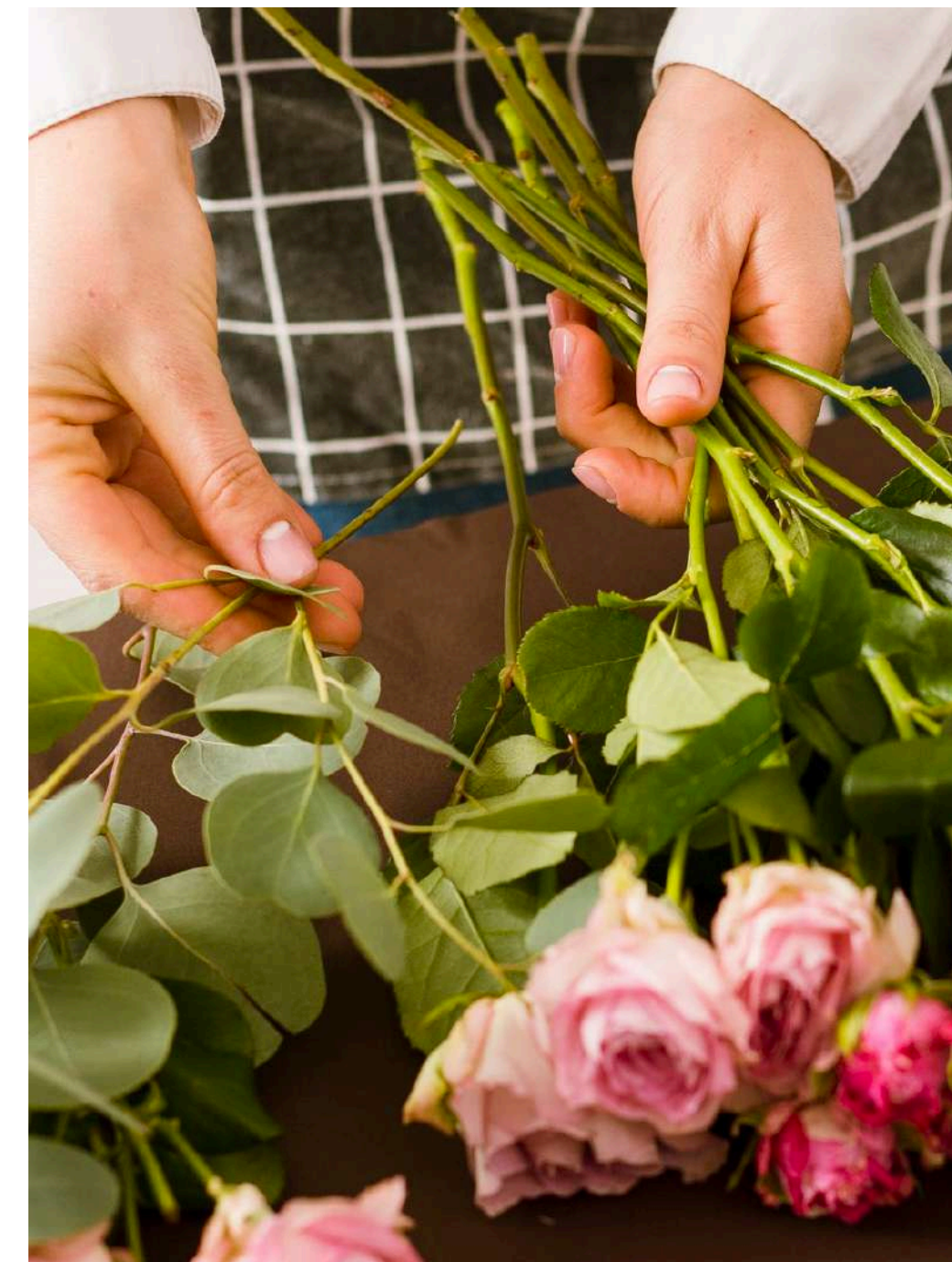
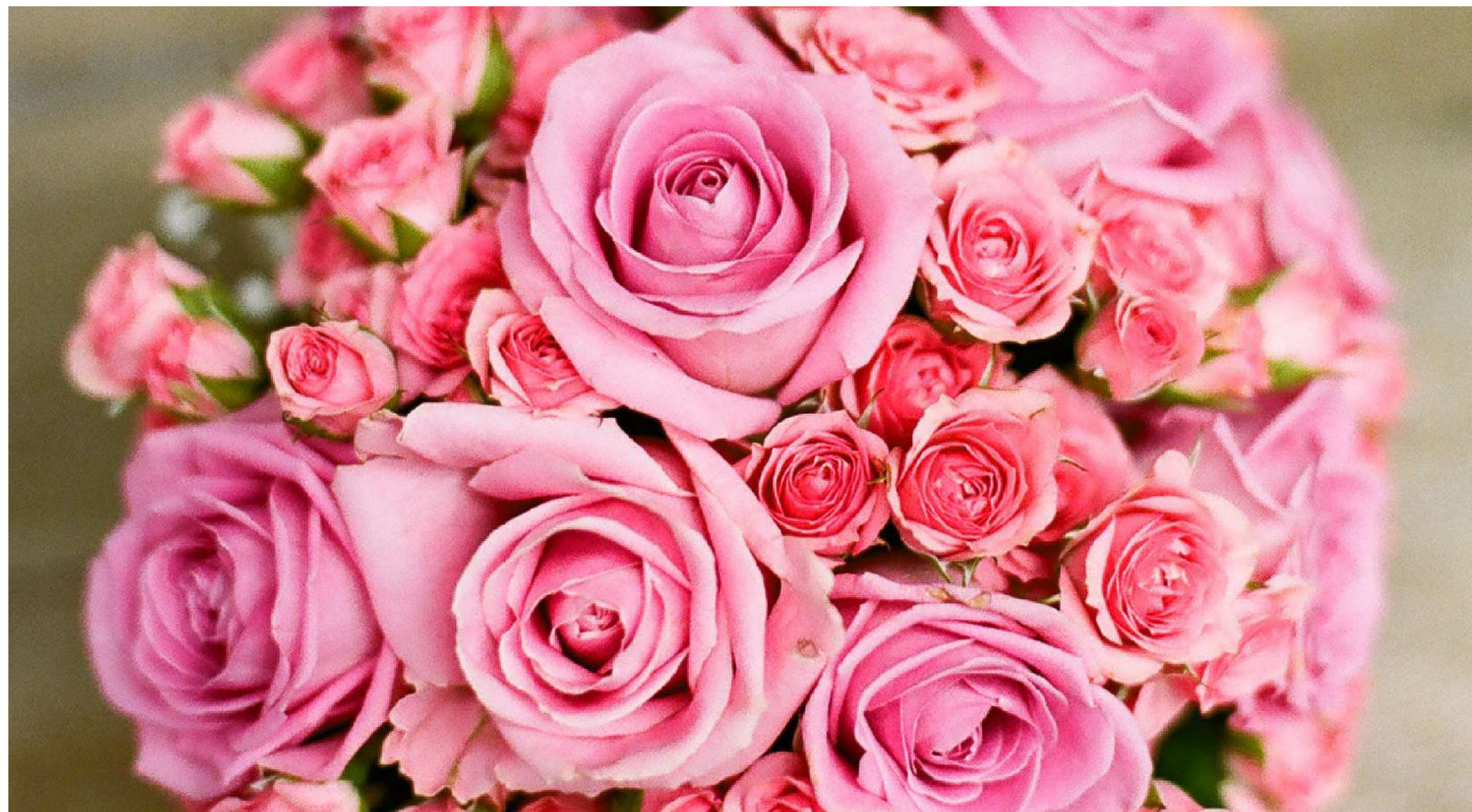
Fresh flower food solutions consist of three main ingredients: carbohydrate, citric acid, and a biocide. Here's what each component does:

1). Carbohydrate

- Provides energy for blooming.
- Beneficial for non-bulb flowers like roses.
- Bulb flowers and already bloomed flowers like gerbera don't need it.
- Doesn't harm flowers that don't use it.

2). Citric acid

- Helps water flow into stems and between cells.
- Slows bacterial growth due to low pH.
- After about three days, bacterial growth may surpass the acidic environment, especially at room temperature.



3). Biocide

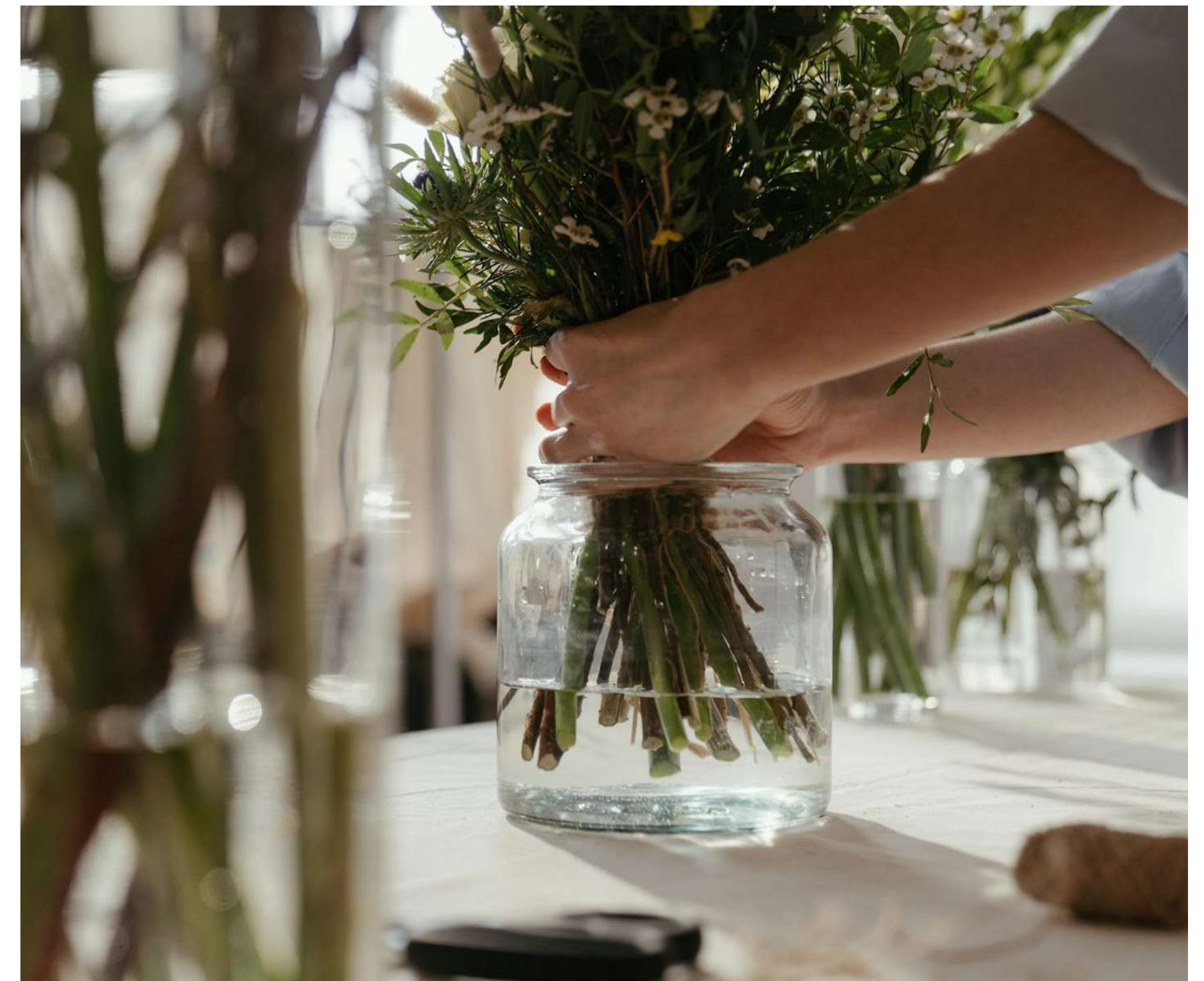
- Prevents bacterial growth.
- Bacteria growth at stem ends can lead to wilting.
- Some florists use wire bracing to keep flower heads upright, but it's costly.

Remember, warm solutions help mix flower food powder effectively by dissolving the sugar. Once flowers have been pretreated and placed in flower food solution, keep them at room temperature for at least one hour before refrigeration. This period allows flowers to fully take up the flower food solution so that the leaves and growth terminals are fully turgid, which is the state where plant cells have taken up the maximum amount of water. A turgid plant cell is puffy, while a flaccid plant cell is misshapen and loose. Wilting is the manifestation of flaccid plant cells.

Cutting Stems

Here are some tips for preparing cut stems:

- Remove Excess Foliage: Take off any loose leaves or foliage that will be below the water line in the bucket.
- Keep Healthy Foliage: Leave the healthy foliage above the water line intact.
- Minimize Wounding: Cutting leaves or petals creates small wounds where moisture loss and pathogens can enter. Try to minimize cutting to reduce these wounds and prevent ethylene synthesis.
- Cut Stems at an Angle: Cut all stems at a sharp angle to expose fresh tissue, which helps them absorb water better.
- Prevent Sealing: Cutting at an angle also prevents stems from sealing to the bottom of buckets, ensuring water uptake.
- Remove Waxy Scab: When stems are cut, they produce a waxy scab that can block water absorption. Use a sharp blade like a flower knife or pruning shears to remove it and promote better hydration.



This manual should equip you with the knowledge and techniques necessary to handle and care for DM Flowers' products with expertise and confidence. By following the guidelines outlined in this manual, you ensure the longevity, freshness, and beauty of our floral creations. Remember, attention to detail, proper handling, and adherence to best practices are essential in preserving the quality of our flowers and foliage. Thank you for choosing DM Flowers, and we trust that this manual will serve as a valuable resource in your journey as a professional florist.