

Introduction and Scope of Gerbera

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Gerbera (*Gerbera jamesonii* Bolus) is a member of the Asteraceae family with popular names such as Transvaal daisy, African daisy, and Barberton daisy. There are 40 species in the genus *Gerbera*, but only *Gerbera jamesonii* is cultivated. It is indigenous to the African and Asian continents. With tall leafless stalks and daisy-like blooms, gerbera is a particularly beautiful flower crop. It is a popular cut flower that may be cultivated in a variety of climates across the world. The gerbera flower is a symbol of beauty, purity, and innocence. The genus *Gerbera* was named after Traugott Gerber, a German botanist and medical practitioner, while the species *jamesonii* was named after Captain Jameson (Das and Singh, 1998).

Gerbera can endure a variety of weather conditions. Gerbera may be cultivated in a variety of climates in the United States. However, Maharashtra, Karnataka, Tamil Nadu, West Bengal, and Sikkim are the biggest producers. Gerbera flowers are in high demand in European marketplaces almost all year (Salunke *et al.*, 1989).

Gerbera is a perennial herbaceous plant with a tuberous root structure. Gerbera plants have no stems. The leaves are grouped in a rosette at the base and are smaller at the base radical, deep lobed, and broader towards the top. Gerbera blooms are 7-10 cm wide, although some hybrids may be up to 10-15 cm wide. They are classified into three categories based on the number of flower heads: single, semi-double, and double

Gerberas are now one of the top ten most popular commercial cut flowers in the planet. Because of its beautiful form and vibrant colours, the gerbera has become a highly popular commercial cut flower (Nair *et al.*, 2003). Gerbera's daisy-like blooms come in a variety of beautiful hues, including yellow, red, orange, fiery red, pink, white maroon, and other tints. Gerbera is appealing, and its extended shelf life is another feature that contributes to its popularity as a cut flower across the world (Kumar *et al.*, 2010). Gerbera's longevity varies from 1-4 weeks after harvest, depending on varietal, harvesting techniques, and postharvest management circumstances (Acharyya *et al.*, 2012).

Gerbera comes in a range of hues, and the variety of colours has made it popular for use in garden decorations such as herbaceous borders, beds, and pots. Gerberas are particularly popular cut flowers due to their extended vase life (Khosa et al., 2011). Gerberas can be used in bouquets as cut flowers. Gerbera plants are in high demand as pot plants for traditional festivities and special occasions. Gerbera flowers can also be used as a dried flower in creative arrangements. It's also utilised in floral arrangements, both fresh and dried. Gerbera flowers can also be found in a variety of floral designs (Emongor, 2004). Gerbera flowers are utilised for important occasions such as birthdays, anniversaries, friendship days, wedding parties, and many more. It's used in cosmetics to make nail paints, lipsticks, and fragrances, among other things. The gerbera plant, in addition to its aesthetic and cosmetic value, has therapeutic applications. For example, it is used in the creation of traditional Chinese medicine: tu-er-feng, which is made from entire gerbera plants and is used to treat colds, coughs, mouth sores, and rheumatism. It works as an anti-spasm agent and lowers the risk of cancer. (Bose *et al.*, 2003).

Gerbera is sensitive to extremes in temperature, cold, and rainfall. Gerbera is quite vulnerable to heavy rain and flooded situations. Gerbera may be cultivated in a variety of soil types, but it thrives in loamy soil with enough of moisture. During the day Temperatures of approximately 24 °C during the day and around 15 °C at night are ideal for optimum growth, yield, and flower quality (Reddy, 2016).

Gerbera may be cultivated in a poly house or in the open field. Because open circumstances are not ideal for gerbera flower quality, a poly house is an excellent alternative for improved development and production. As a result, cultivars must be cultivated under controlled circumstances in order to meet quality and quantity criteria (Choudhary *et al.*, 1998). Protected conditions gives more yield and maximum side shoots formed. Protected conditions save the plants from high winds, pests, diseases and other climatic conditions and also provide favorable environment for the good growth of the plants (Khan, 1995). Flowers must be of excellent quality to fulfill market demands, therefore if plants are produced under protected circumstances, the market worth of flowers rises as well. The crop is produced in totally protected climates under regulated poly house or green house settings in some locations where the natural weather is quite cold for lengthy periods of time, such as portions of the United States, the United Kingdom, and Australia. Semi-protected circumstances are

used in locations near the equator, where the temperature can be controlled to develop the crop for optimum growth and quality of bloom.

Because of its colour variations, bloom size, extended vase life, wide adaptability for cultivation, and appropriateness for sheltered cultivation, the gerbera flower crop has become a popular option for production in India. Because gerbera is a herbaceous perennial crop, it requires a lot of nutrients to thrive and yield at its best. For high-quality gerbera cut flower production, all growth variables like as nutrition and growing environment must be considered. Gerbera is a popular cut flower crop with a significant market share in the global flower trade. Plant nutrition is essential for increased growth, output, and bloom quality. Application of balanced treatments together with cultural practises plays a vital role in the optimal growth of gerbera flowers in order to fulfil quality requirements as well as market needs. For best development and output, gerbera require a mix of treatments in the form of chemical fertilisers and bio fertilisers.

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