

Gerbera Cultivation under Suitable Planting Media

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Abstract

Gerbera (*Gerbera jamesonii*) 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. Gerbera is important because of its flower colour, long vase-life and market demand. In tropical and subtropical climate, gerbera is grown in greenhouses to produce quality flower. The Gerbera can grown well in Soilless media comparing to Soil media. This article reviews detailly about the suitable media for gerbera cultivation and its preparation method.

Introduction

Gerbera (*Gerbera jamesonii*) is an important cut flower ranked fifth in the flower trade belongs to family Asteraceae. It is native to Natal and Transvaal area of South Africa. The plants are stem-less, tender and perennial herbs. They are dwarf, 30-45 cm tall & hairy. Leaves are leathery, narrower at the base and wider at the top and are arranged in rosette at the base. The flowers are daisy like, 7-15 cm across. The flower may be single or double and available in various self colored cultivar as well as bicolor. Suitable growing substrates are essential for quality Gerbera production as these affect development and maintenance of plant rooting system. Moreover, these are necessary for sufficient anchorage of plant, provision of nutrients and water as well as gaseous exchange between roots and atmosphere outside the growing medium.

Propagation

It is propagated by seeds, suckers and tissue culture methods. The commercial method of multiplication of gerbera is through tissue culture to get disease free planting material.

Suitable Media for Cultivation

Gerbera can cultivated under both Soil and Soilless media with Coco peat, Coir pith and saw dust. In soilless condition the yield and Quality of flower is High, compared to Soil media.

- 1) SOIL MEDIA:** Well drained loamy soil, rich in organic matter, having adequate moisture holding capacity is ideal. Along with Soil, adding of FYM, sand and coco peat in 2: 1 : 1 ratio should improves root growth of plant. The two primary factors are considered for selecting soil is the soil



Fig 1 – Tissue culture method of gerbera propagation



Fig 2 – Gerbera cultivation in soil

pH must be between 5.5 to 6.5 and the soil salinity level does not exceed 1 ms/cm. For better root growth and better penetration of roots, the soil should be highly porous and well-drained. Red lateritic soil is ideal soil for Gerbera cultivation.

- 2) **SOILESS MEDIA:** In Greenhouse Gerbera cultivated in Soilless media (coco peat & coir pith) have their own advantage, as the cultivation cost increase in soilless media is around 30-35% high, but the Production is higher in soilless media compare to soil media and required very close monitoring. Soilless media is suitable for a large area of more than 2 Acre.



Fig 3 – Gerbera cultivation in soilless media

Disinfection of Soil

It minimizes infestation of soil-borne pathogens. The raised beds should be drenched by 4% solution of formaldehyde and immediately covered with air tight polyethylene film for 4-5 days. Soon after, treated beds should be watered thoroughly to drain off chemicals. A few days before transplanting neem cake @ 1 kg/m² can be incorporated into prepare beds. Furadan @ 10g/m² can be applied as preventive measure to control nematodes.

Transplanting

Tissue cultured plug plants (4-5 Leaves) should be planted in such a way that their crown is slightly 2-3cm above the surrounding the soil. The crown must be dried out between two watering; otherwise infection of *Phytophthora cryptogea* takes place. Planting can be done at a spacing of 30cm x 30cm, in 3 rows per bed in 1 m width accommodating 9plants/m². Plantlets are transplanted without disturbing the root ball. After planting, relative humidity inside the greenhouse should be kept 70-80% or shade net should be remaining closed for 4-6 weeks to avoid desiccation of plants.

Conclusion

As per conclusion, This review article highlights, the soilless media is good for cultivation of gerbera plants with effectively increasing Yield and Quality aspects of Flower characteristics and also reveals about the soil sterilization methods and transplanting method of Gerbera.

References

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