



## Influence of different potting mixtures on growth and flowering of cosmos (*Cosmos sulphureus* Linn.) and Gaillardia (*Gaillardia pulchella* Linn.)

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### ABSTRACT

The pot experiments were conducted to study the effect of different potting mixtures (Vermicompost, Farmyard Manure, Coarse Sand and Soil in 6 different ratios) on vegetative growth and flowering of cosmos (*Cosmos sulphureus* Linn.) and gaillardia (*Gaillardia pulchella* Linn.) during summer season of 2010. Among all, the potting mixture ratios treatment of VC + CS+SOIL (2:2:1), was found effective in enhancing the plant growth and flowering in cosmos and FYM+CS+SOIL (2:2:1) in gaillardia.

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**Key words :** Potting mixture, Vermicompost, Farm yard manure, Cosmos, Gaillardia

Annuals can be grown in the ground or as potted plants, but it is most advantageous to grow in pots for those who live in flats and have no space for growing plants in the ground. For them this is the cheapest method of gardening. Another advantage it provides the easy mobility, i.e., a potted plant can be handled easily and can be moved to any part of the garden or even inside the house for the purpose of beautification. Summer-flowering annuals (bedding plants) are a special group in pot plant cultivation. Unlike most pot plants, they are not intended for indoor use, but for gardens and balconies. The usual constituents of a potting mixture are a good garden soil, preferably loam, which generally forms the greater part of the mixture, leaf-mould or peat-moss, coarse sand, old motor rubber, vermicompost, well rotted farm yard manure, charcoal and cinder ash. The proportion of the constituents will vary according to the type of the plant. Potting media play very vital, which have a property of superior drainage, appropriate aeration, and water holding capacity.

Cosmos belongs to family Compositae. Its common names are cosmea, Mexican aster, cosmos etc. It is native of Mexico and is very common in the garden. It is delightful annual, mainly grown in the summer and rainy season. The plant is 40-50 cm tall well branched and leaves are

dark green thin and deeply cut. It thrives in sunny or semi-shaded situations and takes about 2.5 to 3 month to come to flowering.

Gaillardia belongs to family Compositae. It is commonly known as Blanket flower. It is native of America. It is a free-flowering annual which bloom in succession for quite some time. This is very easy to grow and most popular. The plants are medium, 40-45cm tall. The flowers are large, 5-7 cm across, single and are available in many pretty colours and their combinations such as yellow, lemon, yellow-purple, cream, orange, maroon, etc. It is very useful for bedding, border. It can be grown for a greater part of the year and the flowering season can further be extended by removing the faded flowers. The plants can tolerate heat and drought and come into flowering 3 to 3.5 months after sowing. The plant can also grow in 25 cm pots. To investigate the effect of various potting mixtures on vegetative growth and flowering of Cosmos and Gaillardia, the present study was taken up.

### MATERIALS AND METHODS

The present experiment was conducted at the Horticulture Research Farm of the Department of Applied