Review Article

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STUDY OF MORPHOLOGICAL VARIATION IN ROSES

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ABSTRACT:
Roses are the most famous flowers in the world. The reason behind popularity of the rose flower due to its wide variations in terms of color, size, fragrance and other attributes. In the world of gardening, roses are considered to be the most popular among the flowering plants. The *Rosa* genus includes approximately 300 species of woody flowering perennials with several thousand varieties cultivated from past. While there are some native roses found in nearly every part of the world, most varieties grown in landscapes are hybrid cultivars for which the original species ancestors have long since been forgotten. When we buy a modern rose variety, it is frequently sold by a unique cultivar name rather than by a species name. In the present study some morphological variation Rose verities are discussed.

Keywords: Rose, Verities, Hybrids tea., Floribunda, Miniature.

INTRODUCTION:

Roses have a long and colorful history. They are the symbols of love, beauty, war, and politics from long time. The rose are 35 million years old, according to fossil evidence. China could probably have stared cultivation of roses some 5,000 years ago. During the Roman era, roses were used to grown extensively in the Middle East. They were used for decorative purposes at celebrations, for medicinal uses, and as a source of perfume. Roses are the most famous flowers in the world. The reason behind popularity of the rose flower due to its wide variations in terms of color, size, fragrance and other attributes. In the world of gardening, roses are considered to be the most popular among the flowering plants. The *Rosa* genus includes approximately 300 species of woody flowering perennials with several thousand varieties cultivated from past.

MATERIAL & METHODS:

The characteristics of a particular rose variety can only be fully understood by considering the rose class in which it falls and by evaluating its several morphological characteristics like the structure of root, stem, prickles, leaf flower colour and fruit as well as seeds.

RESULT AND DISCUSSION

In Rosaceae, specially in genus Rosa, colour pigments play very important role as well as shows variations, in Stem, Prickles, Leaf, flower, fruit as well as in seed.

Root – branched tap root

Stem - at young condition it's herbaceous and woody at young; colour light green to grey.

Prickles – In Roses a short pointed outgrowth on the bark or epidermis of a plant; it is a small thorn called as prickles.

Colour - purple, green, grey; shape small to medium, thin to thick. e.g. *R.* cv. Charles Azanavour, *R.* cv. Pays D'rosie, *R.* cv Rainbow sorbet

Leaf - Leaf is unipinnate imparipinnate compound leaf, pinna also shows variation in number i.e. 1 pair pinna with one odd; two pair pinna with one odd; 3 pair pinna with 1 odd pinna. In this genus adnate type of stipules is present with glandular hairs at margin. e.g. *R.* cv E. E. Greenwell, *R.* cv Salmon Q. Elizabet II

Inflorescence - In different varieties solitary or cymose types of inflorescence present.

Hybrid tea roses appear as a single flower (blossom) on a long stem that's shows solitary type of inflorescence. e.g. : *R.* cv Drummer Boy, *R.* cv. Abhisarika

Floribunda types of roses as the name implies, produces abundant clusters of flowers on its stems shows cymose type of inflorescence. e.g. *R.* cv Electra, *R.* cv summer snow.

Miniature type of roses appear a single flower to abundant cluster of small size flower on its stem. e.g. *R.* cv Ice fairy, *R.*cv Chandrika

Flower shows variation in size, shape whorls and colour.

Colour types - Single coloured roses (at half bud stage) initially became muti-coloured roses by changing the colour of the petals with age. Some of the striped, blend, and bi-colour roses which

also changed their colour with age. Hence, these multicolour roses were sub-categorised into three namely striped-multicolor, blend-multicolor, and bicolor-multicolor. e.g. *R.* cv Travest, *R.* cv Chitarnjini, *R.* cv Silvinia, *R.* cv Maxvita

a) Striped-multicolor :- Two or more colours on each petal, one of which was in the form of distinct bands, these colour changes distinctly with age. It shows both characters of striped with multi colour

b) Blend-multicolor :- Two or more distinct colour merged on the inside of each petals then colour changed distinctly with age. It shows both characters of blend with multi- colour

c) Bi-multicolor :- Abaxial and adaxial side of petal colour were well distinctly different, and again these colours changed distinctly with age. Petals showed both characters of bi-colour with gradual transition into multi- coloured.

Pollination : self Pollination (*R.* cv New style), cross Pollination (*R.* cv Saharadhara)

Fruit : etaerio of achenes; shape round to elliptical, colour varies green, yellow brown, reddish orange, orange. Ex. *R.* cv Chals Dajnawar, *R.* cv Dance of Joy

Seed : size, shape, colour *R.* cv Charles Azanavour, *R.* cv Cslaus Fleur

In hybrid tea (HT) roses, size of seeds is up to 0.5 to 0.8 cm, colour pale yellow to brown ; in Floribunda roses, size of seeds up to 0.5cm with brown in colour and in miniature roses size of seeds is very small 0.3cm with cream colour.

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