Available online at www.ijpab.com

ISSN: 2320 – 7051
Int. J. Pure App. Biosci. SPI: **6 (3):** 735-738 (2018)

Research Article

International Journal of Pure & Applied Bioscience

OPEN ACCESS

Studies on Qualitative Attributes of Promising Genotypes of Gaillardia (*Gaillardia pulchella* L.)

Sai Salve[1*], Bhalekar, S. G. [2], Nagesh Gawade[3] and Yogesh Nilwarn[4]

[1, 2 & 4]Department of Horticulture, College of Agriculture, Pune,
Mahatma Phule Krishi Vidyapeeth, Rahuri- 413722 (Maharashtra, India)
[3]Ph.D. Scholar, Department of Horticulture, College of Agriculture,
Junagadh Agricultural University, Junagadh-362001 (Gujarat-India)
*Corresponding Author E-mail: saisalve1193@gmail.com
Received: 12.07.2018 | Revised: 23.08.2018 | Accepted: 30.08.2018

ABSTRACT

Gaillardia (Gaillardia pulchella L.) is popularly known as 'blanket flower'. Due to its ornamental property it is perfect plant for flower beds, borders and corners. Based on the results obtained from the present investigation, the genotypes show variation in flower colour, shape of petals and pubescence.

Key words: *Flower colour, Shape of petal and Pubescence.*

INTRODUCTION

Gaillardia is the hardiest annual can be grown in a wide range of tropical to temperate climate. Gaillardia is grown in herbaceous borders, beds and is also suitable for cut and loose flowers. Besides, its utility in landscape *Gaillardia pulchella* is useful in reducing erosion in coastal dune areas[3].

It belongs to asteraceae family and the central and western united states are considered to be its origin. The generic name *Gaillardia* was proposed in honour of Mr. M. Gaillard, a French patron of botany, who cultivated it first. This is substitute flower crop for chrysanthemum and china aster[2]. The country has strength of having an availability of different climatic zones, good climate and soil, cheap labour, enough land and skilled manpower.

MATERIAL AND METHODS

The present investigation was carried out during 2016-17 at the Horticulture Section, College of Agriculture, Pune. The experiment having 12 genotypes *viz.* MG-2-2, MG-3-1, MG-3-2, MG-5-5, MG-6-1, MG-6-2, MG-7-1, MG-7-2, MG-9-1, MG-10-2, MG-10-4 and Local check. The colour of the fully opened flower was recorded before they started fading by comparing their colour with colour shades mentioned in Royal Horticulture Society (RHS) colour chart. Shape of petals was grouped into narrow with pointed tip and narrow with blunt tip. Pubescence is the small hair like structure present on the flower stalk. The presence or density of pubescence was observed visually on each genotype into three categories *viz*., dense, medium and low pubescence.

Cite this article: Salve, S., Bhalekar, S. G., Gawade, N. and Nilwarn, Y., Studies on Qualitative Attributes of Promising Genotypes of Gaillardia (*Gaillardia pulchella* L.), *Int. J. Pure App. Biosci.* SPI: **6(3):** 735-738 (2018).

RESULTS AND DISCUSSION

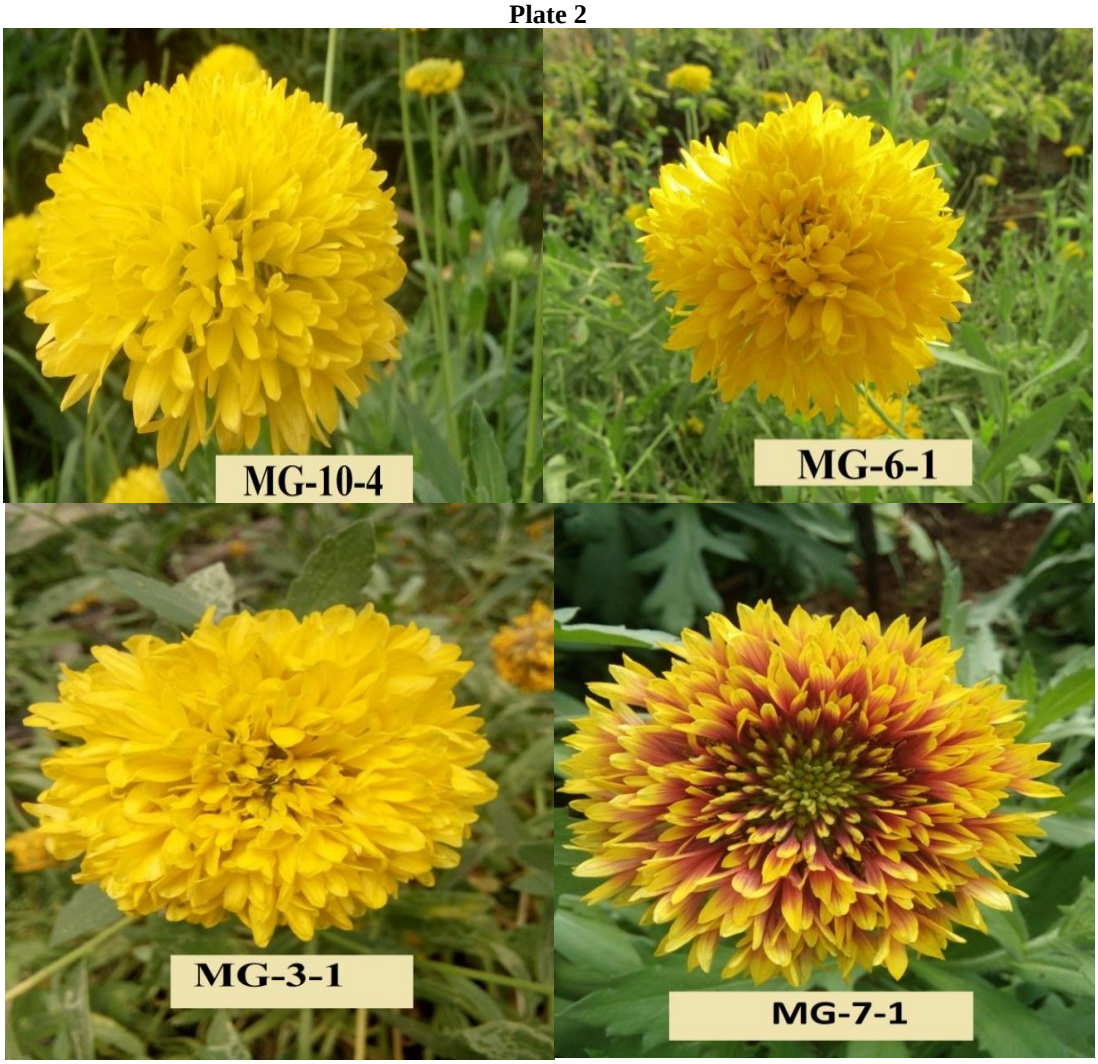
The flower colour was recorded by comparing ray florets with Royal Horticulture Society colour chart (5th edition). The two genotypes MG-3-1 and MG-7-2 showed the Yellow group 6B colour, The genotype MG-2-2 showed Yellow group 9A, MG-3-2 showed Yellow group7A, MG-5-5 showed Yellow group 7B, MG-6-1Yellow group 11A, MG-6-2 Yellow group 12B, MG-7-1 showed Yellow group14A, MG-9-1showed Yellow group 12A, MG-10-2 showed Yellow group 7B, MG-10-4 showed Yellow group 6A, Local check showed Yellow group 11A as a colour code noticed on RHS colour chart. These findings were confounded by Agale[1] and Gawade *et al.*[4], in gaillardia. Genotypes MG-6-2 and MG-7-2 the ray floret petal showed narrow with blunt tip and remaining ten genotypes showed narrow with pointed tip of ray floret petals. These findings are in agreement with Gawade *et al.*[4], in gailladia. Out of twelve genotypes MG-6-1 and MG-10-2 showed dense pubescence and four genotypes *viz*., MG-3-1, MG-5-5, MG-6-2 and MG-7-1 showed medium pubescence. The remaining six genotypes MG-2-2, MG-3-2, MG-7-2, MG-9-1, MG-10-4 and Local check showed low pubescence on the flower stalk. The present findings regarding flower size are in close affirmity with observations recorded by Gawade *et al.*[4].

Table no. 1 Qualitative attributes:

Genotypes	Flower colour	Shape of petal	Pubescence
MG-2-2	Yellow group 9A	Narrow with pointed tip	Low
MG-3-1	Yellow group 6B	Narrow with pointed tip	Medium
MG-3-2	Yellow group 7A	Narrow with pointed tip	Low
MG-5-5	Yellow group 7B	Narrow with pointed tip	Medium
MG-6-1	Yellow group 11A	Narrow with pointed tip	Dense
MG-6-2	Yellow group 12B	Narrow with blunt tip	Medium
MG-7-1	Yellow red group 14A	Narrow with pointed tip	Medium
MG-7-2	Yellow group 6B	Narrow with blunt tip	Low
MG-9-1	Yellow group 12A	Narrow with pointed tip	Low
MG-10-2	Yellow group 7B	Narrow with pointed tip	Dense
MG-10-4	Yellow group 6A	Narrow with pointed tip	Low
Local (C)	Yellow group 11B	Narrow with pointed tip	Low

Plate 1

Plate 2



CONCLUSION

From the present investigation we found that the flower colour, shape of petal and pubescence varied in different genotypes. This qualitative attributes will use for the further improvement in genotypes of gaillardia.

REFERENCES

1. Agale, M. G., Performance of different genotypes of gaillardia (*Gaillardia pulchella* L.) M. Sc. (Hort.) thesis submitted to Mahatma Phule Krishi Vidyapeeth, Rahuri (Maharashtra). (2012).
2. Bose, T. K., Yadav, L. P., Pal, P., Das, P. and Parthasarthy, V., Commercial flowers. 2nd Edition. Naya Udyog, Kolkata. Vol. **2:** 852-853 (2003).
3. Carig, R. M., *Proc. Flo. Sta. Hort. Soc.*, **90:** 108-110 (1977).
4. Gawade, N., Bhalekar, S.G., Bhosale, P., Katwate, S.M. and Wadekar, V., Studies on different genotypes of gaillardia (*Gaillardia pulchella* L.) for quantitative and qualitative performance. *Int. J. Curr. Microbiol. App. Sci*., **7(3):** 1030-1039 (2018).