

POSSIBILITIES OF USING *GLADIOLUS* VARIETIES IN GREEN SPACES DESIGN

POȘIBILITAȚI DE UTILIZARE A GLADIOLELOR ÎN DECORUL SPAȚIILOR VERZI

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Abstract. *The landscaping design evolved very much from antiques gardens to modern ones, having variables dimensions and the vegetal material is currently more diversified, thanks to breeding programs. This paper work aims to make Gladiolus varieties more popular so that it can be used more often in parks or in small gardens and so, to increase the economical value as decorative horticultural plant on the garden plant market, not just as cut flowers. At the UASVM Cluj-Napoca was initiated a case study in a small area that showed no functionality and a proposal for redevelopment of the same area was made, using different Gladiolus varieties, combining a great diversity of colours, with different flower shapes and various heights, such as: 'Medina', 'Pink Lady', 'Perceus', 'Red zone', 'Nova Lux', 'Excelsa', 'Early Riser' etc. To create bi-dimensional and three-dimensional plans for new proposal were used landscaping design programs like: Realtime Landscaping (3D), Google SketchUp and Corel Draw.*

Key words: garden, landscaping, decoration period, perennial plant.

Rezumat. *Design-ul spațiilor verzi a evoluat mult de la grădinile antichității până la cele moderne, având dimensiuni variabile, iar datorită programelor de ameliorare, materialul vegetal folosit astăzi este mult mai diversificat. Aceasta lucrare are scopul de a promova speciile genului Gladiolus astfel încât, acestea să fie amplasate în parcuri sau grădini mai mici, crescând astfel valoarea economică a speciilor pe piață ca plante horticole decorative, nu doar ca flori tăiate. În cadrul USAMV Cluj-Napoca a fost inițiat un studiu de caz asupra unei zone care nu prezenta nici o funcționalitate, realizându-se o propunere de reamenajare a acestei zone, folosind specii ale genului Gladiolus care îmbină varietatea culorilor cu cea a formei florilor și a înălțimilor: 'Medina', 'Pink Lady', 'Perceus', 'Red zone', 'Nova Lux', 'Excelsa', 'Early Riser' etc. Pentru crearea planurilor de propunere bidimensionale și tridimensionale au fost folosite programe de amenajare spații verzi ca: Realtime Landscaping (3D), Google SketchUp and Corel Draw.*

Cuvinte cheie: grădină, peisaj, perioadă de decor, plante perene.

INTRODUCTION

Living in areas with walkable green spaces positively influenced the longevity of urban senior citizens independent of their age, sex, marital status, baseline functional status, and socioeconomic status (Takano, 2002).

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The interest for green spaces design was manifested since antiquity being an important activity especially near villas, castles or palaces. In the small spaces, the arrangement of colour in the garden has to be one of the most satisfying and pleasurable of all the aspects of gardening (Hattatt, 1998). Colors are central to a successful garden, and how they are used sets the tone of the planting (McHoy, 1997).

The landscaping design evolved very much from antiques gardens to modern ones, having variables dimensions and the vegetal material is nowadays more diversified, thanks to breeding programs.

Because of the great species variety and cultivars of the genus, *Gladiolus* gives a lot of possibilities to create interesting arrangements using only gladioli or in associations with other flowers or shrubs. Being a flower with a long decoration period (from June to September) with normal ecological requirements (Cantor et al., 2007), it is easy to be included in many garden designs. Unfortunately, in Romania it is used more as cut flower and less in green spaces decoration.

Tall gladioli are recommended for groups, at the back of the border and shorter species can be placed in rock gardens or mixed in borders with spring bulbs (**, 1996).

The paper work aims to make *Gladiolus* species more popular so that it can be used more often in parks or in small gardens and so, to increase the economical value as decorative horticultural plant on the garden plant market, not just as cut flower.

The main objective of the research was to diversify the assortment used in green spaces designs by introducing new species or varieties in order to enhance the esthetic value of the environment.

MATERIAL AND METHOD

In the present work, was presented a case study of existing arrangements of gladioli in landscaping design and a proposal for decorating a private garden using cultivars of *Gladiolus* with a great variety of colours, different flower shapes and various heights, such as: 'Medina', 'Pink Lady', 'Perceus', 'Red zone', 'Nova Lux', 'Excelsa', 'Early Riser', 'Plum Tart', 'White Prosperity', 'Mon Amour' (<http://en.wikipedia.org/>) etc.

There were made analyses of different green areas designs observing plants that were used, associations of colors, heights and blooming periods. New proposals were made using landscaping design programs like Realtime Landscaping (3D), Google SketchUp and Corel Draw. These programs were used to create bi-dimensional and three-dimensional plans for new proposal.

The space was recreated in 3D and the plants were picked-up from the program's library. Google sketchup was used to recreate the unevennesses of the land and then, the image was imported to Realtime Landscape to add the vegetation and to create the design. After the design was finalized, the plan was exported and then, the image was imported to Corel Draw where the image was processed so that the final image looks good.

RESULTS AND DISCUSSIONS

Most *Gladiolus* flowers can be planted almost everywhere but it is

important to be aware of the ecological necessities of those plants, therefore should be avoided shady places and clayey substrates.

Also it is necessary to respect the heights of the plants when flowers are associated in groups. Tall gladioli, like 'Plum Tart', 'Mon Amour', 'White Prosperity', can be placed in the middle of the group only if it has a circular form or it is symmetrical for at least two points of view, like in the image below (Fig.1).



Fig. 1 - *Gladiolus* in middle of the group
(www.mastergardener.okstate.edu)



Fig. 2 - Miniature *Gladiolus* in rock garden
(www.davesgarden.com)



Fig. 3 - Group of *Gladiolus*
(www.botanicgardensblog.com)



Fig. 4 - Association of *Gladiolus*
(www.gapphotos.com)

Miniature gladioli are easier to include in the design of the landscape because their heights are lower and so they can be associated even with rock plants, in rock gardens. Some examples are: *G.* 'Golden Gem' (50 cm), *G.* 'Lemonade' (70 cm), *G.* 'Madonna' (65cm) (<http://www.rareplants.de>) (Fig. 2) etc.

Having such a variability of colors, from shades of pure white, pink, and cream to strange combinations of tan and brown, flower shapes and heights, can be proposed designs using only *Gladiolus* flowers grouped in clusters (Fig. 3) for a beautiful blooming and a wonderful effect, with at least three different cultivars. For a better support to avoid the breaking of the flower stems, twine can be placed near flowers to sustain it (Fig 4). This kind of arrangement can be placed in a flower garden between the rows of other flowers if they are having smaller sizes or near an alee where they can be admired by everyone who's passing by, or in front of a rock garden.

Gladioli may be used as background plants in the garden to cover a fence, or combined with other summer annuals and perennials, or can be left alone to grow in rows even to serve as cut flowers for the inside design, by creating arrangements for vases. For the background designs are recommended glads that are reaching more than 100 cm, because a larger area can be covered by their leaves and inflorescences. Moreover, the beauty of the flower reduces the unaesthetic aspect of the fence.

CONCLUSIONS

In landscaping design it is very important to follow all the design principals to avoid unfortunate plant associations of colors, textures (for the leaves) or heights and so, the plants will be perfectly emphasized.

Gladiolus flowers are very beautiful and being so colorful can be easily included in almost any garden design for summer season. In Europe and mostly in USA, gladioli are widely used in green spaces designs but in Romania, they can be seen in very few private gardens. However, with the help of landscaping designers, the genus can be promoted and so more people could enjoy the beauty of these flowers in public spaces also.

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