

## PRELIMINARY STUDIES REGARDING THE USE OF VEGETABLE SPECIES IN THE CONCEPT OF URBAN GARDENS

### STUDII PRELIMINARE PRIVIND UTILIZAREA SPECIILOR LEGUMICOLE ÎN CONCEPTUL GRĂDINILOR URBANE

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**Abstract.** *This paper presents a literature preview regarding the use of vegetable species in the concept of urban gardens. The designing of the utilitarian gardens dates back from the antiquity when they were particularly important as a source of food. With the emergence of the concept of "edible landscaping", which promotes the use of edible plant species along with ornamental plant species in landscaping, the utilitarian garden has acquired aesthetic valences as an integral part of the green space set up on private property in the urban area and not only. Starting from the desire of people to have a place to produce some of the necessary vegetables and aromatic plants in the small space around the houses and to enjoy a recreation space, will be studied different systems of use of vegetable plants in order to develop concrete measures for the development of decorative vegetable gardens in the private environment in urban and periurban areas, taking into account the possibilities of association of the leguminous plants in raised beds.*

**Key words:** *Urban garden, Edible landscape, Vegetable garden*

**Rezumat.** *Lucrarea prezintă o sinteză a literaturii de specialitate referitoare la posibilitățile de utilizare a speciilor legumicole în conceptul grădinilor urbane. Amenajarea de grădini utilitare datează din antichitate când acestea prezentau importanță mai ales ca sursă de hrană. Odată cu apariția conceptului de „edible landscaping”, ce promovează utilizarea unor specii de plante comestibile alături de specii de plante ornamentale în amenajările peisagistice, grădina utilitară a căpătat valențe estetice devenind parte integrantă a spațiului verde amenajat pe proprietățile private din mediul urban și nu numai. Plecând de la dorința oamenilor de a avea un loc în care să își producă o parte din necesarul de legume și plante aromatice în spațiul restrâns din jurul caselor și de a beneficia totodată de un spațiu de recreere se vor studia diferite sisteme de utilizare a plantelor legumicole în vederea elaborării unor măsuri concrete de dezvoltare a grădinilor decorative de legume în mediul privat din zonele urbane și periurbane, ținând cont de posibilitățile de asociere a plantelor legumicole în strat înălțat.*

**Cuvinte cheie:** *grădină urbană, grădină utilitară, amenajare, plante legumicole*

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## INTRODUCTION

The attractiveness and value of landscaped designed areas are generated by their capacity to meet the needs of urban comfort and quality of life in general. The value of a harmonious landscaping design also resides in its educational effect, because the environment created by the design can enhance the aesthetic sense of the inhabitants.

The designing of the utilitarian gardens dates back from the antiquity when they were particularly important as a source of food. With the emergence of the concept of "edible landscaping", which promotes the use of edible plant species along with ornamental plant species in landscaping, the utilitarian garden has acquired aesthetic valences as an integral part of the green space set up on private property in the urban area and not only (Creasy, 1984).

More and more people adopt the concept of ornamental vegetable gardens in their gardens. There are many reasons why people are trying to integrate vegetable and aromatic plants into the landscape around the house. One of these reasons is that not everyone has an area large enough to create a classic vegetable garden.

Starting from the desire of people to have a place to produce some of the necessary vegetables and aromatic plants in the small space around the houses and to enjoy a recreation space, will be studied different systems of use of vegetable plants in order to develop concrete measures for the development of decorative vegetable gardens in the private environment in urban and periurban areas, taking into account the possibilities of association of the leguminous plants in raised beds. The ornamental value and location of plants will play a very important role in creating the entire design.

## MATERIAL AND METHOD

The main research methods used are documentary study and case study regarding the situation of vegetable gardens over time and observation on species growth and development in raised beds.

In order to understand the growth and cultivation of plants in high elevations, a study will be carried out on the types of ornamental vegetables gardens and their purpose.

Another important factor in this study is how to design the vegetable garden. In order to design a vegetable garden, the area and site for the design will be assessed and natural factors such as soil, light, water and local fauna will be taken into account.

## RESULTS AND DISCUSSIONS

The cultivation technology of the vegetable species allows different associations between them for an intense, good and calculated importance of the fields on which they are cultivated on thus, allowing it to be used for a long period of time by practicing allotment system, whether it is a household garden or a vegetable specialty farm (Bird, 2008).

In order to ensure a gradual production and for the most intensive use of the space, successive and intercalated crops will be realized, the latter increasing the ornamental potential of the design by juxtaposing complementary species such as colour, shape and texture of the leaves or habitus.

Due to the fact that a garden must have a decorative effect over the whole year, it must be designed in such a way that the species proposed for association and succession present elements whose aesthetic characters are amplified and adapted to each season (Creasy, 2010).

The ornamental-utilitarian vegetable garden is divided in three types of vegetable gardens: the vegetable garden, the aromatic plants garden and the kitchen garden or “jardin potagere”.

For vegetable gardens, which focus more on the utility than the aesthetic, a geometric compositional scheme is chosen, which is more suitable for production and plant care (fig. 1).

The aromatic plants garden is a separate space of the main garden with purpose is growing aromatic plants and medicinal plants. It can be carefully designed after geometric patterns or to a more natural scheme, with an unorganized, random appearance (fig. 2) (Kourik, 1986).



**Fig. 1** – The utilitarian vegetable garden([www.gedeus.ro/legume-ierburi-aromate-amenajari-gradini](http://www.gedeus.ro/legume-ierburi-aromate-amenajari-gradini))



**Fig. 2** – Knot garden([www.gedeus.ro/legume-ierburi-aromate-amenajari-gradini](http://www.gedeus.ro/legume-ierburi-aromate-amenajari-gradini))

The purpose of the kitchen garden is to combine the utilitarian and the aesthetic function. In this garden aromatic plants and vegetables plants are combined with floral plants to enhance the aesthetic effect. Also for aesthetic reasons are used ornamental varieties of utility plants (variegated sage, decorative cabbage etc.) (fig. 3).



**Fig. 3** Kitchen garden([www.gedeus.ro/legume-ierburi-aromate-amenajari-gradini](http://www.gedeus.ro/legume-ierburi-aromate-amenajari-gradini))

The first step in designing a garden is setting the goals. These goals are to determine the type of garden, the amount of time that will be allocated to care, and the choice of the right plants (Mihai, Hoza, 2012).

### **Designing types of the ornamental-utilitarian vegetable gardens**

#### *1. Classical vegetable gardens*

Planting in classical gardens is done in the existing soil (fig. 4). This type of gardening is suitable for most plant types, does not require special maintenance, and initial investment is minimal. It is important that the surface soil be of good quality (60 cm deep), be effectively drained and cleaned by the roots of nearby trees for optimal plant development (Creasy, 2010).

#### *2. Raised bed vegetable garden*

This is a form of gardening, in which stands are created above ground level. They can be of various shapes, bounded by wooden, stone, or concrete curbs (fig. 5).

The plants are closer than in the classic garden. Their spacing is such that when they reach maturity, they create a microclimate where weed growth is suppressed and moisture is preserved (Creasy, 1984).

This type of design has many benefits: extend the growing season, reduce weeds, if properly designed and planted, are very productive.



**Fig.4** Classical vegetable gardens  
([www.edifica.ro/despre-gradina/gradina/alegeti-stilul-pentru-gradina-de-legume/](http://www.edifica.ro/despre-gradina/gradina/alegeti-stilul-pentru-gradina-de-legume/))



**Fig.5** Raised bed vegetable garden  
(original)

### 3. *Lasagna garden*

This is an elevated garden type, built on the surface of existing soil from several layers of organic material, hence the name lasagna. Materials may vary but usually include cartons, organic fertilizers, straw, green waste and compost. This type of garden is ideal if the soil is not suitable for gardening (fig. 6).

### 4. *Pots and containers garden*

There can be a very productive garden even on a small piece of land. The gardens in pots and containers are ideal for apartments because they rely exclusively on crops in pots, vases and other small containers (fig. 7). Also included are the vertical gardens or green walls that are created by vertically disposing containers (including paper or textile pockets) (Creasy, 2010).



**Fig.6** Lasagna garden  
([www.edifica.ro/despre-gradina/gradina/alegeti-stilul-pentru-gradina-de-legume/](http://www.edifica.ro/despre-gradina/gradina/alegeti-stilul-pentru-gradina-de-legume/))



**Fig.7** Pots and containers garden  
([www.edifica.ro/despre-gradina/gradina/alegeti-stilul-pentru-gradina-de-legume/](http://www.edifica.ro/despre-gradina/gradina/alegeti-stilul-pentru-gradina-de-legume/))

### 5. *Wicker bed gardens*

Wicker beds are layers made of large containers containing a water tank at the bottom. The water circulates in the bottom-to-top container through capillarity.

Wicker beds can be easily made from polystyrene containers. Any elevated garden can be designed with this irrigation system (fig. 8).

Essentially, this is a combination of the raised garden and the container garden (Kourik, 1986).





**Fig. 8** Wicker bed gardens ([www.edifica.ro/despre-gradina/gradina/alegeti-stilul-pentru-gradina-de-legume/](http://www.edifica.ro/despre-gradina/gradina/alegeti-stilul-pentru-gradina-de-legume/))

## CONCLUSIONS

1. Plant cultivation has been an integral part of human history since ancient times. The man's need to feed led to the appearance of the garden as a source of fast and safe food that man could rely on. Therefore, the garden initially had an utilitarian role, the production of food and medicinal plants being its main purpose;

2. Five types of vegetable gardens were identified: the classic vegetable garden, raised beds vegetable garden, the lasagna garden, pots and container gardening, the garden with wicker beds.

3. In order to design a vegetable and aromatic plants garden, there are a few steps to follow: to assess the area where the garden is planned, to set the main objectives and to plan the project.

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