

# THE BIOLOGICAL AND DECORATIVE POTENTIAL OF SOME ORNAMENTAL DECIDUOUS SPECIES AND VARIETIES WITH HIGH ESTHETICAL VALUE

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## Abstract

The studied ornamental species and varieties impose themselves in the vegetal assortment composition due to their decorative characteristics and ecologic features. Studies were performed during 2004-2007 period on 15 deciduous ornamental species and varieties. For observations and determinations, ornamental plants from RIFG Pitesti – Maracineni and some parks of town Pitesti were used. The study purpose consisted of: phenology development – the onset of the phenology, duration and intensity of blooming; description of decor plants and elements – flowers, leaves, fruits, branches or the whole plant; the possibility for use of the studied ornamental plants as isolated, combined, in hedge and climbing plants. The plants studied form a diversified assortment of valuable dendrological species and varieties which ensure decor on the whole year by flowers, fruits, leaves and branches. The plants have a good adaptability to soil and climate conditions in the studied region, this is emphasised by flowers, fruits and leaves abundance, and the long duration of fruits on plant and their specific colour. The flower is the main decorative element, thus species of *Forsythia*, *Magnolia*, *Chaenomeles*, *Acer* still bloom starting from March to April, ensuring decor by flower, then other decorative species and varieties space out their flowering starting with April till late September as: *Cotinus*, *Clematis*, *Lagestroemia*, *Weigela*, *Hydrangea*, *Wistaria*, etc.

Key words: **species, varieties, decorative characteristics**

## 1. Introduction

The ornamental species and varieties of wood deciduous plants are of great decorative interest being utilized in landscape arrangements as simple samples or together with others.

The studied ornamental species and varieties impose evidence themselves in the vegetal assortment composition due to their decorative characteristics and ecologic features.

In Romania, previous studies have been reported on ornamental species and varieties by, among others, Iliescu (2002), Mateescu (2002), Posedaru (2000, 2005, 2008), Posedaru and Chitu (2006), Stanciu (1997).

The study purpose consisted of the phenology development – the onset of the phenology, duration and intensity of blooming; description of décor plants and elements – flowers, leaves, fruits, branches or the whole plant; the possibility for use of the studied ornamental plants as isolated, combined, in hedge and climbing plants.

The plants studied compose a diversified assortment of valuable dendrological species and varieties which ensure decor on the whole year by flowers, fruits, leaves and branches. The plants have a good adaptability to soil and climate conditions in the studied region, this is emphasized by flowers, fruits and leaves abundance; the long duration of fruits on plant and their specific color.

## 2. Material and method

Studies were performed during the 2004-2007 period on 15 deciduous ornamental species and varieties. For observations and determinations, ornamental plants from RIFG Pitesti-Maracineni and town Pitesti parks were used.

The deciduous ornamental species and varieties studied were: *Berberis thunbergii* `Atropurpurea`, *Corylus avellana* `Contorta`, *Forsythia x intermedia*, *Chaenomeles japonica*, *Magnolia liliflora*, *Cotinus coggygria* `Simfonia Verii`, *Clematis x jackmanii*, *Hydrangea x macrophylla*, *Lagestroemia indica*, *Prunus laurocerasus* `Otto Luyken`, *Prunus serrulata* `Kanzan` *Euonymus japonicus* `Variegatum`, *Pyracantha crenatoserrata* `Orange Glow`, *Weigela florida*, *Wistaria sinensis*.

### 3.Results and discussions

Analyzing the behavior of the ornamental species and varieties, we have noticed that these plants offer a complete and nice décor during the whole year, both through the flowers and fruits, or through leaves and canopy. They appear rather early in *Daphne mesmerism* L, which is an autochthonous shrub blooming from the second half of January. The species of the *Corylus* L; *Cornus* L. și *Mahonia* Nutt., genus bloom in February, following then the ones blooming in March as the varieties of *Chaenomeles* Lindk, *Magnolia*, *Forsythia* Vahl which give the signal of spring.

The floral bushing takes place during May, June and July, when most of the ornamental shrubs enrich the flower framework of each of the green space. Starting with August, the floral spectrum shrinks and the only genera which bloom now are *Lagestromia*, *Lespedeza*, *Tecoma* Juss, *Lonicera* L., *Hibiscus* L and the second blooming wane is for some varieties of *Spiraea* L., *Clematis* L .

The nice-looking colored fruits fill in the scenery, some of them remaining on the market even during winter time like the varieties of the genera *Viburnum* L. *Pyracantha* L, *Ligustrum* L, *Ilex* L, *Hippophae* L, *Berberis* L, *Cotoneaster* Ehrh . The diversified range of leaf colors from the growing season as well as the sempervirent of some species and varieties form scenery of a great ornamental value whose fruits colored in red, yellow, orange or black stay on the plants even in the cold season. Most of the species and varieties studied are well adapted to the soil and climate conditions of the region, except for the species *Lagestroemia indica* which freezes to death at lower than  $-18^{\circ}\text{C}$  temperatures, below this threshold the annual shoots die completely, but afterwards they regenerate.

Figures 1 through 10 show some of the ornamental species discussed above.



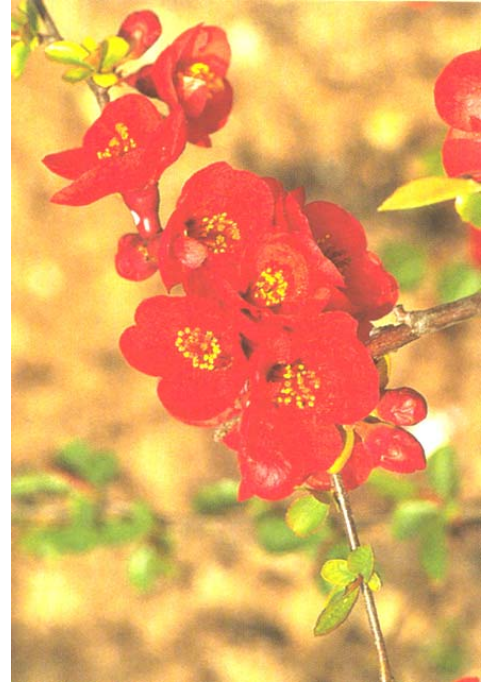
**Fig. 1- *Cotinus coggygria* „Simfonia Verii”**



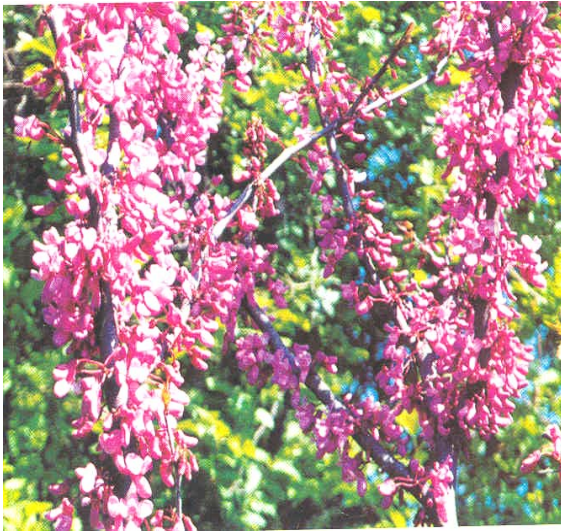
**Fig. 2 – *Lagestroemia indica***



**Fig. 3 – *Forsythia x intermedia***



**Fig. 4 – *Chaenomeles japonica***



**Fig. 5 – *Cercis siliquastrum***



**Fig. 5 - *Kerria japonica***



**Fig. 6 – *Syringa vulgaris***



*Albizia julibrissin*



**Fig. 7 – *Albizia julibrissin***



**Fig. 8 – *Diervilla florida* „Bristol Ruby”**



**Fig. 9 – *Tecoma radicans***



**Fig. 10 – *Cotoneaster horizontalis***

#### 4. Conclusions

The ornamental sort consisted of 15 species offers an aesthetic valuable scenery for green spaces. However, the number of varieties of some genera is rather small and requires its completion with other valuable varieties.

Organizing some green spaces to be more and more attractive requires a well knowledge of the biological and cultural characteristics of all the ornamental varieties and the choice of the most suitable combinations.

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