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The review of the book CONTEMPORARY GARDENING LEXICON OF DECORATIVE PLANTS – KNOWLEDGE FOR SPECIALISTS AND PLANT AND GARDEN AFICIONADOS

Didier Willery, **Was wächst wo? 1900 Gartenpflanzen für jeden Standort**, (What grows where? 1,900 species of horticultural plants for each position in the garden), Aus dem Französischen von Sabine Hesemann, ISBN 978-3-8186-0551-3, Stuttgart (Hohenheim) 2018, Eugen Ulmer KG, www.ulmer.de

Didier Willery is a well-known horticultural expert, recognized not only in France but also across Europe. Many of his critically acclaimed books have been translated into German. The book that is subject to this analysis was originally published in French by the French branch of a German publishing house, Eugen Ulmer KG, seated in the capital of France. D. Willery's book serves as a modern gardening lexicon intended both for a wide group of decorative plants' and gardens' aficionados but is also very useful for gardening specialists. It contains a detailed description of more than 3,000 species and varieties of trees, shrubs, perennials, vines, bulbous plants, annual and biennial plants. The aim of D. Willery's book is to indicate plants that have adapted to the conditions present in specific gardens, following the popular saying: "the right plant in the right place." The book's main feature is the division of plants according to the flowering calendar, the color of their flowers, as well as fragrances, properties of leaves, fruit and bark, plant growth and size, and finally, the specific use of those plants in decorative horticulture.

Didier Willery's work is truly extensive, as it covers 384 pages. It consists of an introduction ("The right plant in the right place", pp. 7-13), five basic chapters and an ending consisting of an "Index" and "Acknowledgements". It is worthwhile to mention the titles of the chapters included in the basic part: "Flower Calendar" (pp. 14-78); "Colors of flowers and their scent" (pp. 80-163); "Leaves, fruits, bark" (pp. 164-269);

“Plant growth and size” (pp. 270-297); “Sites of plants and their special use” (pp. 298-373), as well as “Index” (pp. 374-381) and “Acknowledgments” (pp. 382). In the introduction, D. Willery points out that the gardening lexicon that is subject to this review was an attempt to summarize the past thirty years of his work. Additionally, frost-resistant species (ones that tolerate temperatures below -10°C) were indicated. However, plants that are less frost-resistant and therefore less appropriate for German climate (and even less so in the Polish climate) are marked with an appropriate symbol (a caron with an asterisk). The author points out that the lexicon has a very limited selection of roses, daylilies, peonies and iris varieties.

Annual flower calendar

Various trees, shrubs, vines, perennials, bulbous plants, and annual and biennial plants blossom throughout the year. The following seasons can be easily distinguished: January to mid-February; mid-February to the end of March; late March to early May; May and early June; mid-June to the end of July; August to mid-September; September and October; November and December. This analysis is concluded with a table devoted to long- (lasting) flowering plants. From January to mid-February, relatively few woody plants (heather, witch-hazel), perennials or bulbous plants (crocuses, common snow-drop) blossom. Many more plants bloom from mid-February to the end of March. Camellias (unfortunately not particularly frost-resistant in Central European conditions), cornelian cherry, mezeureum, early flowering ornamental cherries, many spring perennials (pennywort, pulmonaria, common violet), as well as many small bulbous plants and narcissuses also blossom at that time.

From late March to early April, many trees and shrubs are already in bloom. This applies to Norway maple (*Acer platanoides*), shadbush, magnolia, Japanese flowering cherries, flowering quince, tree peonies, fragrant viburnum. Climbing plants also bloom during this period: clematis, wisteria, as well as perennials: bergenias, forget-me-nots, many primroses, spurgeons, as well as plants. In the period from May to early June, a significant number of plants are in full bloom. This applies to trees (chestnut trees, redbuds, dogwoods, hawthorns, ornamental apple trees, robins), shrubs: sweetshrubs (*Calycanthus*), deutzias (*Deutzia*), common lilacs, rhododendrons and azaleas, viburnum (*Viburnum*), weigelas (*Weigela*), perennials (great masterworts, bellflowers, knapweeds, bleeding hearts, crane's-bills, iris, catnip, peonies), numerous bulbous plants and annual and biennial plants.

The period from mid-June to the end of July is considered to be the summer period. Relatively few trees blossom at that time, although many species of shrubs (shrub chestnuts, summer lilacs, smoke trees, hydrangeas) and climbing plants. This is when perennials typically blossom: bear's breeches, yarrow, lilies of the Nile, false spireas, larkspurs, daylilies, pincushions, speedwells (*Veronica and Veronicastrum*), as well as galtonia and many species of lilies. Relatively few trees and shrubs blossom from August to mid-September. That being said, this is the period of mass flowering of Japanese thimbleweed, coneflower (*Echinacea*), echinops, sneezeweeds (*Helenium*),

sunflowers (*Helianthus*) and sunshinee (*Heliopsis*), beebalms (*Monarda*), garden phloxes, knotweeds, coneflowers, goldenrods. Flowering annual and biennial plants are also characteristic.

September and October periods include relatively few flowering trees and shrubs, but still contains numerous perennials. Many species of asters, stonecrops, many interesting prairie perennials and bulbous plants should be mentioned here. In November and December, only a few trees, shrubs and vines bloom.

The colour of flowers and their scent

The next chapter is devoted to the flowers' colours and their scent. The chapter ends with the tables of "Underestimated Sources of Pollen" (p. 160), as well as "Edible Flowers" (p. 162). D. Willery discusses the colours of flowers on trees, shrubs, vines, perennials, bulbous plants and annual and biennial plants. The following flower colors are mentioned: "white flowers"; "green flowers"; "pale yellow flowers"; "yellow flowers"; "orange-colored flowers"; "red flowers"; "purple flowers and »black«"; 'pink-tinged and bright red flowers'; ' mallow-tinged flowers'; "pink flowers"; "fragrant flowers".

White colours are known among numerous flowers of trees, shrubs, vines, perennials, bulbous plants, as well as annual and biennial plants. These include, among others, such trees as dove tree (*Davidia involucrata*), the little known Wilson's chestnut, many species and varieties of magnolia, numerous fruit trees, as well as shrubs: shadbush (*Amelanchier*), common lilacs, hydrangeas and white-flowering variants of many varieties of perennial and bulbous plants. Green flowers are much less known, including Norway maple, lady's mantles, spurge and Corsican hellebore (*Helleborus argutifolius*). Light yellow and yellow flowers are well known. We should mention here the selected varieties of magnolia, the *Paeonia lutea* peony, the one variety of the common lilac (*Syringa vulgaris* 'Primrose'), golden chain tree *Laburnum x watereri* 'Vosii', Japanese kerria (*Kerria japonica*); numerous perennials: leopard's-banes, trollius, tickseed (*Coreopsis*), perennial sunflowers and sunflowers, many species of goldenrod. Yellow bulbous plants are also characteristic, as are numerous annual and biennial plants.

Orange-colored flowers are relatively rare among trees and shrubs (i.e. barberries, shrubby cinquefoils). However, they are more common among perennials, which blossom, especially in the summer. This applies, inter alia, to butterfly weed (*Asclepias tuberosa*), many varieties of daylilies, torch lilies (*Kniphofia*), chrysanthus, as well as bulbous plants and annual plants.

Red, purple and "black", as well as purple and blue colors are also highly valued in decorative gardens. Beautiful red flowers are relatively rare among trees and shrubs, but numerous among perennials and bulbous plants. Purple and "black" flowers, seen primarily among varieties of roses, perennials and bulbous plants, can make a lasting impression. This also applies to purple and blue flowers. These plants are often sought after by garden and plant aficionados. Fragrant plants are especially appreciated in gardens. A number of trees (including magnolias, lindens), shrubs and perennials should be mentioned here.

Characteristics of leaves, fruits and bark

The chapter devoted to leaves, fruit, and bark is relatively extensive, as there are a plethora of various forms present in this area. When it comes to leaves, we can distinguish the unusual always-green colour; large leaves, cut and feathered leaves; blue leaves; silvery leaves; white-edged leaves; white and marbled leaves; gold-tinged leaves; yellow marbled leaves; brown and copper coloured leaves; purple leaves; black leaves; pink-tinged and pink-framed leaves. Particularly interesting for gardeners are coloured autumn leaves (colours: yellow, orange, red, pink), as well as leaves are sprouting in spring and fragrant leaves. Many trees and shrubs, as well as perennials, also have edible leaves, among others beech and birch.

Decorative fruit also deserves gardeners' attention: white and pink; yellow and orange-tinged; red; blue and black; dried fruit on plants. The table presents decorative and edible fruit (p. 254). Bark also has decorative value in gardens and parks; we distinguish white and yellow bark; orange and red bark; purple and black bark; green and brindle bark (with black stripes); cinnamon-colored and marbled bark, but also adorned with beautiful thorns, spikes or cork and, finally, trees and shrubs with twisted branches.

The beautiful, evergreen colour of the leaves is seen, among others, on southern magnolia, loquat (*Eriobotrya japonica*), numerous conifers, perennials and bulbous plants. On the other hand, many trees have large leaves (including azaleas, catalpas, some magnolias), similar to many shade-loving perennials growing by the water (including rogersia, plantain lilies, rhubarb). Much appreciated in decorative gardens are also blue and silvery leaves (including conifers, plantain lilies, grasses, silverberries), seen among numerous species and varieties of mugwort, as well as caucasian forget-me-not, and variants of lungwort. Gardens also frequently contain gold-coloured plants (with the adjective 'Aurea'), as well as gold-edged ones. Plants with purple and black leaves can also look beautiful. Many such species and varieties of plants, including Catalpas *Catalpa x erubescens* 'Purpurea', common beech *Fagus sylvatica*, Purpurea group, wild elderberry *Sambucus nigra* 'Thundercloud', as well as numerous perennials. Fragrant leaves are common among shrubs and prostrate shrubs, especially spicy ones, of Mediterranean origin. Fragrant grasses are also known.

Plant height and size

The height and size of cultivated plants can also vary greatly. These are—according to the author—erect, bar (columnar), superficial; inherently round; creeping; wide and bunk; dangling (crying); umbrella-shaped, rosettes; stolon plants. This chapter lists plants by their size: 0-5 cm; 5-25 cm; 25-30 cm; 50-100 cm; 1-1.5 m; 1.5-2 m, 2-4 m, 4-7 m, 7-25 m and more than 25 m. *Catalpa bignonioides* 'Nana', viburnum *Viburnum opulus* 'Compactum' and several conifers marked with the 'Globosa' adjective, including plants with hanging (weeping) branches known as 'Pendula', are also admired. Many perennials have beautiful rosettes as well as stolons that can be truly expansive.

Plant sites and their specific application

Multiple sites with a variety of plants and particular uses are present in gardens. The following sites can be listed here: coasts; undercoat and shade; windy position; good garden soil; acidic soils; limestone-containing soils; permeable soils; clay soils; permanently moist soils; aquatic plants and mud plants; soil-fertilizing plants; potted plants, containers and patios; hedges; ground cover plants. Many trees, shrubs and perennials typically grow at seashores. Those plants are characterized by a high tolerance of soil salinity (they are also often called "maritima"). There are also many plants known as undergrowth and occupying shaded positions. A number of trees and shrubs can be mentioned here, but, most of all, perennials (including lily-of-the-valley, crane's-bill, plantain lilies, foamflowers, periwinkles) and some bulbous plants should be included in this category. The so-called moving shadow present near houses and walls (p. 310) is a separate phenomenon. Additionally, in areas with high-quality garden soil, several bedding plants can grow well.

The following sites can also be distinguished in gardens: acidic soils; soils containing much calcium; permeable soils; clay soils; permanently moist soils. On acidic soils, Japanese maple, various types of andromedas, rhododendrons, numerous perennials and bulbous plants can grow. Other plants grow in soils containing limestone, e.g. field maple, sycamore maple, numerous species of conifers and deciduous shrubs, and perennials bulbous plants. Numerous plants of Mediterranean origin, conifers, perennials, and annual and biennial plants grow well on permeable soils. Clay soils are a good site for numerous deciduous trees and shrubs, conifers, numerous species of perennials and bulbous plants. Permanently moist soils exhibit a completely different flora. These include maple (*Acer negundo*), alder (*Alnus glutinosa*), black birch (*Betula nigra*), conifers (*Metasequoia glyptostroboides*, *Taxodium distichum*), numerous species of perennials and bulbous plants. Plants appropriate for hedges are also in high demand (field maple, European hornbeam, common beech, English yew, thujas) and cover plants (numerous shrubs and perennials).

Didier Willery developed an excellent gardening lexicon, clearly up to European standards. It can also be very useful in Poland. The author marked plants that are not frost-resistant in typical conditions of Central and Eastern Europe. It allows the reader to get to know the rich world of decorative plants quickly. The plant species are conveniently divided according to: the flowering calendar; flower colours and their scents; properties of leaves, fruit and bark; plant growth and size; sites occupied and their use in gardening. This publication is useful for gardeners, including specialists and dendrologists, and for a wide group of plant and garden aficionados.

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