

ORNAMENTAL PLANTS OF PE "LIRYS" NURSERIES AND THEIR USING FEATURES IN THE EXPOSURE AREA

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Developed project proposals for adapting the demonstration and collection area on decorative nursery of PE "Lirys", scheduled planning structure for plots, described species and composition of vegetation that will be displayed there .

Ornamental nursery, demonstration plots, species of plantations.

Introduction. Until recently, the market of garden and ornamental crops has not been properly developed in Ukraine. Most plants gardeners cultivated by their own efforts on private lands. Today, when landscape design evolves and grows, there are many different new species and varieties of plants that get attractive shapes, sizes and even colors, but it becomes a necessary condition for the cultivation of plant material by using modern technologies and market development of ornamental plants.

The purpose of research is the study of native and international experience of the exhibition areas organization for ornamental nurseries in order to organize such an exposure area in the nursery of PE "Lirys" to demonstrate on it the grown ornamental plant material.

Materials and methods of research. Into the basis of researches assigned foreign and native experience of organizing demonstration and collection areas on ornamental nurseries with regard to soil, climatic and hydrological conditions of the place where they are based and demand on plant material for the needs of the modern landscape construction using conventional methods.

Results of researches. To improve customer orientation in flower, tree and bush assortment plants we proposed an arrangement of an exposure area on

ornamental nursery of PE "Lirys". This is an important issue for its development, especially for future advertising for growing assortment of plants in nursery. Basic tasks that we set are: exposure of assortment, which is grown in ornamental plants breeding nursery; presentation of equipment elements for the installation of recreational areas for clients and visitors; and decorating of the area near the management office of ornamental nursery.

Currently, there are many ornamental nurseries where grown considerable assortment of trees, bushes and flower plants. The role of grown plants assortment demonstration in ornamental nursery is not always very good, but we know that "advertising" in the appropriate assortment of collection-demonstrative plot can make a big difference.

Ornamental nursery PE "Lirys", which is located in the village Chmyrivka , Bilotserkivskyi district, Kiev region, covers an area of 4 hectares. The name of ornamental nursery "Lirys" originates from its main specialization - growing Irises and Hemerocallis (Ukrainian names of growing plants create the name of nursery). The territory of ornamental nursery is located on the land which had previously grown agricultural crops, but despite this fact ornamental plants that are grown for ornamental nursery have high quality and marketability (Fig. 1). Along ornamental nursery is the main street of the village Chmyrivka. On the opposite side of the eastern ornamental nursery planted forest, that runs from the beginning of the ornamental nursery to its end. On the north side of an ornamental nursery located houses. The western side of the ornamental nursery is surrounded by agricultural lands.

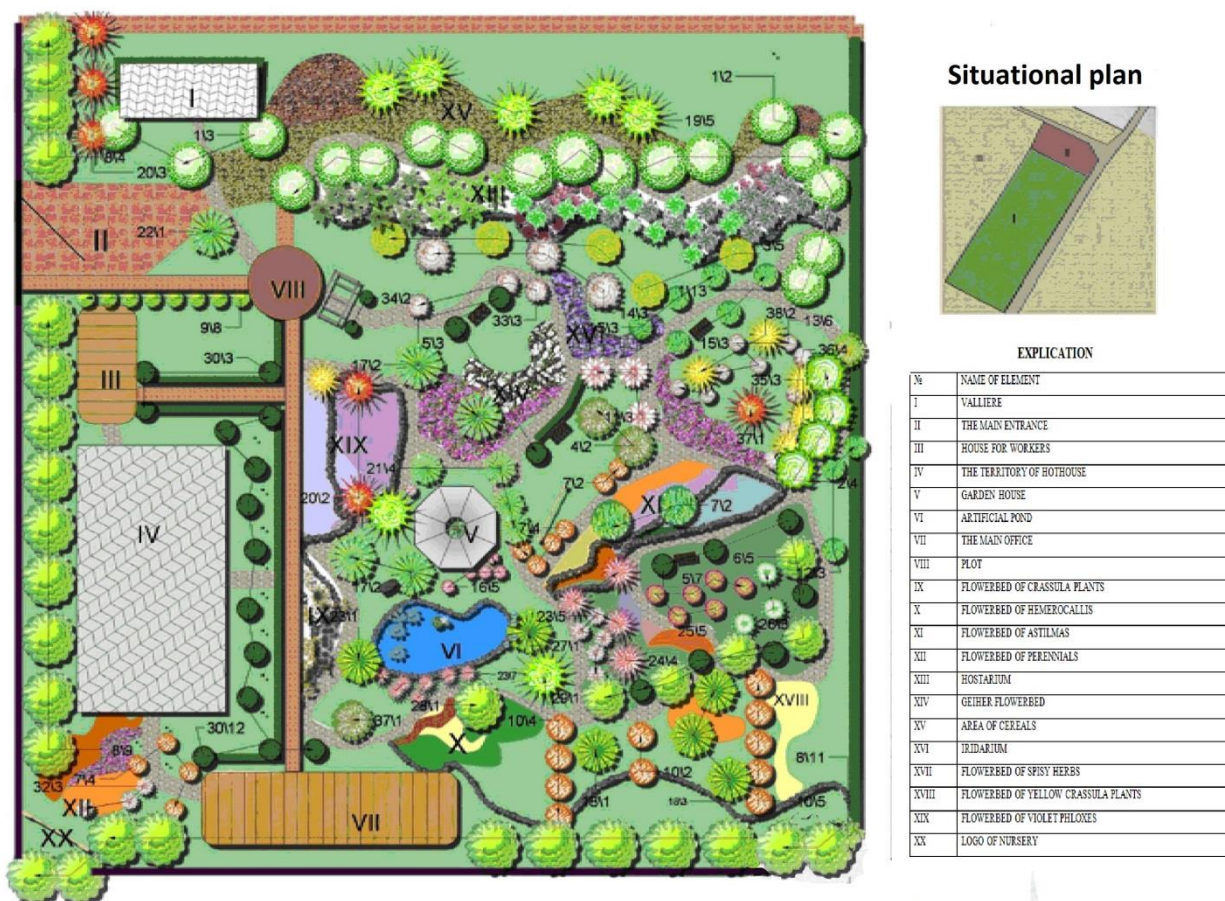


Fig.1. Dendroplan of recreation demonstration areas on ornamental nursery of PE "Lirys"

Under the collection-demonstration plot was allotted territory in the administrative area of the nursery. The plot has a rectangular shape with sides of 53m and 22m. Tracks with cut bars of trees divide it into unequal parts in shape and give visitors the opportunity to explore all the collections of nursery areas. On the western side high fence of *Carpinus betulus* L. is formed, which protects plants from cold north- western winds. On the southern side specimens of *Betula pendula* Roth are planted, creating additional area for shade. Collections are formed on the basis of generic systems based on bio-ecological features and ornamental plants planted there. Genus *Berberis* L. is represented by 2 species and 6 cultivars: *Berberis thunbergii* ('Atropurperea', 'Red Chief', 'Aure', 'Green Carpe', 'Bagatelle') and *Berberis ottawensis* 'Superba'. Genus *Spiraea* L. represented by 4 species and 4 cultivars: *S. cinerea* L., *S. cinerea* 'Grefsheim', *Spiraea x billardii* (Dipp.) Hering., *Spiraea. x bumalda* Burvenich 'Gold flame', *S. japonica* L.

('Albiflora', 'Shirobana', 'Golden Princess'), *Spiraea betulifolia* Pall. Genus *Paeonia* L. is represented by 10 cultivars *Paeonia suffruticosa* Andr. There are 4 types and cultivars of genus *Juniperus* L. are planted on the area of conifers: *Juniperus communis* L. ('Hibernica', 'Hornibrookii'), *Juniperus horizontalis* Moench 'Glauca', *Juniperus media* 'Old gold'; 3 specimens of bluish spruce (*Picea glauca* (Moench) Voss., *Picea glauca* 'Conica', *Picea orientalis* L.) Link. 3 species and cultivars of pine (*Pinus mugo* Turra, *P. mugo* 'Pumilo', *Pinus sylvestris* L.) and *Taxus cuspidata* Sieb. et Zucc. ex Endl. 'Nana'. As single plants there are used highly decorative cultivate forms of deciduous and coniferous woody plants. Among the life forms of plants there are woody lianas: decorative-foliage (*Ampelopsis aconitifolia* Bunge, *A. brevipedunculata* (Maxim.) Trautv.), with decorative blossoming (*Campsis grandiflora* (Thunb.) Loisel., *C. radicans* (L.) Seem. 'Flava') with decorative fruits (*Celastrus orbiculata* Thunb., *Lonicera carpifolium* L.). Lawn of grass plants in the area was expediently replaced on flower lawn, which consists of ephemeroids (*Tulipa x hybrida* Hort. ('Aefke', 'Abba', 'Abra Elite', 'Ad Rem'), *Hyacinthus orientalis* L. ('Blue Jacket' , 'White Pearl', 'Delf Blue'), perennial herbaceous flowering plants : *Astilbe x hybrida* Hort. ('Cattleya', 'Weisse Perle' (White Pearl), 'Rosa Perle' (Pink Perle) *Hemerocallis x hybrida* Hort. ('Ayj', 'American Revolutio', 'Anna Worner', 'Art Festival', 'Be My Valentine', 'Comandment', 'Cristofer Columb', 'Dauntless', 'Demberry Candy', 'Demeri Doll', 'Elegant Candy', 'Friar Lunter', 'Grand Ways', 'Green Clitter', 'Cross My Hearts', 'Haidee', 'Hundredth Anniversar', 'Ice Carnival', 'Joviat'), *Veronica spicata* L. ('Alba', 'Nana', 'Blauteppich'), *Viola sororia* Willd. 'Albiflora' *Viola sororia* 'Frisckes', *Pulsatilla vulgaris* L. (MIX), *Menta spicata* L., *Monarda hybrida*, *Nepeta faassenii*), which has the effect of continuous flowering. Assortment of flowering plants will be supplemented by annuals. Under the tent with birch trees it is a collection of genus *Hosta* Tratt. of different sizes, color, leaves and flowers: strong ('Savage', 'Devon Green', 'Frosted Frolic'), low ('Aurea', 'June' , 'Irish Luck', 'Liberty'), variegated ('Saint Paul', 'Night Before Christmas', 'Cherry Berry', 'Fire Island', *H. fortunei* 'Albopicta', *H. decorate*) and

others. Collection of cereals is created on a separate area, which includes more than 20 species and cultivars: *Helictotrichon sempervirens*, *Koeleria glauca* (Spreng.) DC., *Leymus arenarius* (L.) Hochst., *Miscanthus oligostachyus* Stapf, *Miscanthus sinensis* Anderss., *Miscanthus sacchariflorus* (Maxim.) Franch., *Panicum giganticum* Kuntze, *Panicum virgatum* L., *Festuca pallens* Host., *Festuca valesiaca* Gaud., *Festuca punctoria*, *Pennisetum orientale* Rich., *Sporobolus airoides* (Torr.) Torr. Cereals are also differ in size, including , high (*M. sinensis* 'Jaky Jima', *M. sinensis* 'Ferner Osten', *Panicum virgatum* 'Rehbraun'), form of a bush, leaf color (plants with bluish colored leaves : *Festuca pallens* ('Blau Auslese', 'Acaulis') , *Helictotrichon sempervirens*, etc.). Exposures of woody and herbaceous plants are constantly updated. It is planned to establish areas of water and coastal aquatic plants, which consist of different varieties of irises from low (dwarf) to high with bouffant flowers irises, astilbs , bergenias, *Crepis tectorum* etc. The lake has an irregular shape, which emphasizes that the entire area is developed in landscape style. All this allows to convey the maximum of the beauty and brightness range of ornamental plants of PE " Lirys" nursery. The assortment of plants at the area was chosen to demonstrate various life forms, shapes and species diversity and show to customers of ornamental nursery their uses in landscape construction.

Demonstration and collection area includes designed Iridary, but at this stage it is in the process of creation, which includes the collection of Iris , Hemerocallis, such as: *Iris x hybrida* Hort. ('Lemon Flare', 'Little Dream', 'Banbury Ruffles'), *I. graminea* L. ('Jeremy Brian', 'Kentucky Bluegrass'), *I. typhifolia* L. ('Big Squeeze', 'Sultan' s Palase ', 'Jazzamatazz '), succulents are different by color : *Sedum acre* L., (' Oktoberfest ', ' Yellow Queen '), *S. rupestre* 'Aureum', *S. aizoon* L., *S. album* L. ('Chloroticum', 'Coral Carpet',



Fig. 2 . Variants of green ornamental nursery logo

'Murale'), by height: *S. ewersii* L., *S. ewersii* 'Minor', *S. Hispanicum* L, size : *S. kamtschaticum* 'Variegatum', *S. sexangulare* L., *S. spectabile* 'Matrona', *S. spectabile* 'Rosneteller', *S. spectabile* 'Star Dust', *Yucca filamentosa* L. An important component of the area is a decorative nursery logo (Fig. 2), by which we have tried to convey the specificity of company.

The design of demonstration and collection decorative nursery areas of PE "Lirys " is projected by various equipment and small architectural forms. Fashion trends of our time allow to develop interesting fairy items, but we must understand that improvement of area should be optimally comfortable and safe for customers of ornamental nursery. The territory is designed to place decorative benches (2 pieces), intended for recreation, urn (4 pieces), lights (20 pieces), a garden house, which is made of wood, trellis (2 pieces) , decorative pillars, which are designed for climbing ornamental lianas. All of these elements for decorating demonstration and collection areas allow us to present a territory in a proper view and to form a necessary for landscape gardening example of such territory and "advertising" of ornamental nursery products of PE "Lirys".

Conclusions and recommendations for further researches. Now the production of ornamental nursery is very popular among the more than 85 landscape companies and garden centers not only in Ukraine but also abroad.

Working with replenishment of ornamental plants, both in the nursery itself , and in the collection of demonstration plots, continues to present time.

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Developed project proposals on the device demonstration and collectible decorative nursery areas for PE "Lirys" scheduled planning structure plots described species composition and vegetation.

Ornamental nursery, demonstration plots, species plantations.