The Nikita Botanic Garden, Yalta, USSR

by RICHARD A. HOWARD

Following the International Botanical Congress held in Leningrad in July 1975, Mrs. Howard and I participated in a post-Congress tour to the Crimea, with headquarters in Yalta. The trip was arranged, as is all travel in the Soviet Union, by Intourist, and we were accompanied by an Intourist guide and twin girl interpreters selected by the Academy of Sciences. The girls, English teachers by profession, had received special instructions in botanical and horticultural vocabulary in anticipation of the Congress, and were pleasant, efficient, interested in our fields, and excellent representatives of the Soviet people.

In Yalta our group was met by Nikita Botanic Garden staff members who accompanied us for four days on bus tours to the Botanic Garden; on an exciting mountain trip through conservation lands to the taiga vegetation; to historic houses and gardens, such as those at Livadia Palace where Roosevelt, Churchill and Stalin signed the Yalta agreement; and through many agricultural areas of cereal grains, tobacco and stone fruits. It was an excellent tour, and perhaps the best of those offered by the Congress.

Fortunately we had preplanned our trip to fly from the Crimea to Kiev, instead of returning to Moscow before leaving the Soviet Union. Thus we had two extra days in Yalta, during which time we returned to the Nikita Botanic Garden for additional personal conversations with the director and the staff, and for closer examination of the facilities and collections. We enjoyed the hospitality extended to us and would like to repay the kindness in Boston, although such an opportunity seems unlikely as the Nikita staff does not travel abroad.

The majority of the botanical gardens in the Soviet Union are state-supported and, in their operation, effect a combination of the roles of agricultural experiment stations and botanical gardens in the United States. The purpose of the Nikita Botanic Garden, for example, is to assist the economy of the country, and the direction of the garden was described for us as "agrobotanical." However, of the gardens we saw, including those in Moscow, Leningrad and Kiev, it is the most attractive and best-maintained park for public use.
A primary goal of most gardens is to improve the quality of useful plants, and to distribute as plants or seeds the better selections they produce to appropriate collective farms. The gardens are also repositories for varietal collections to be held as reserves or gene pools, and the economic plant collections are comprehensive. In a new awareness they seek to preserve, as well, the designated endangered species of the area. Colorful flower displays are much enjoyed, especially by the Russian visitors, and portions of every botanical garden are devoted to eye-catching plantings that receive the ultimate in maintenance. Rose gardens were most attractive during the period of our visit. Not one wilted rose was seen; nor were mulches, since the available labor force hoes and weeds continuously.

Northern gardens are open long hours during the extended periods of summer light, and visitors were in the gardens early and late. Baskets for litter were beside the numerous benches and at every path crossing, even though for several reasons litter is not a problem in the Soviet Union.
Most botanical gardens have a natural area, but in many cases these are not open to the public. Greenhouses for display and for propagation are numerous, but surprisingly ancient structures. The Main Botanical Garden, USSR Academy of Sciences, Moscow, has elaborate plans for large geodesic domes with acres of land under glass, but the funding is not yet available for construction. Some indoor collections were meticulously maintained, while others were deplorable as examples of horticultural skills. Statues of Lenin occupy conspicuous positions in every garden, while lesser political or historical figures may be in attractive niches. Display slogans, so common in cities, are pleasantly absent from the gardens. Geographic plots, found often in older European gardens, are exhibits in some Soviet gardens and frequently emphasize the phytogeographic areas of the USSR.

Independent of the state-supported gardens are a few university-associated botanical gardens whose primary purpose is education. It is in these that the classical systematic beds are maintained as teaching aids.

A Soviet Council of Botanic Gardens is headed by the Main Botanical Garden, Moscow, and its director, Academician N. V. Tsitsin. The presidium of the Council meets two or three times a year to determine the general policy for each state-supported botanical garden, and has control of budget allocations to each area. There are also regional councils of botanical gardens to which the director may take his junior staff members for meetings.

The Nikita Botanic Garden was founded in 1811 by the Duke of Richelieu, a refugee from France during the rule of Napoleon, who became governor of the Crimea. He selected the site for the botanical garden and recommended the appointment of Christian Steven as the first director. His goal was to introduce all plants hardy to the area and, by distribution, stimulate the agriculture and forestry of the area. An assemblage of new fruit trees was achieved by 1817, and the Nikita Botanic Garden became the cradle of viticulture when the southern slopes of the Crimea proved excellent for the growing of grapes. Interestingly, the Nikita Botanic Garden won a special citation for an exhibit of wines at the Philadelphia Exposition of 1872, the year the Arnold Arboretum came into being. For timber trees, an expedition to North America introduced a large collection of conifers, and these introductions today are handsome specimen trees. A college of agriculture and horticulture was founded in 1869 by the garden staff. The publication program of the garden began in 1815, and is noted for its contribution of agricultural and horticultural notes, as well as for its Flora of the Crimea.

The Soviet Revolution, which began in Leningrad and centered its new government in Moscow, quickly had an effect in the Crimea. Under Communism the chief gardener became the new director,
great changes were made in the administration and personnel relationships, although the direction of research was unchanged. The college of agriculture became independent of the garden. Research in the breeding and selection of ornamental herbs was introduced, and from this developed a major program on the culture of ethereal oil plants for perfumes. Satellite gardens were established where research was coordinated through the Nikita garden.

When the current director, Dr. M. A. Kochkin, was asked about the administrative organization of the Nikita Botanic Garden, he replied it was complicated and difficult to explain, and pointed to an intricate chart on the wall. The main garden at Yalta comprises 280 hectares, and a steppe and a maritime experimental area, respectively 480 and 200 hectares, total 960 hectares (2,372 acres); all are under his direction. He has two assistant directors who, in turn, supervise the work of 18 subdepartments; these include the
A guided tour in the Nikita Botanic Garden. The ground cover is a weed-free bed of Vinca minor.
areas of two seed laboratories, ornamental horticulture, floriculture, nut trees, industrial crops, entomology, phytological pathology, podology, climatology, scientific information, photography, printing, biochemistry, cytology, radiobiology, plant quarantine, library and herbarium. The labor staff is approximately 700 people. Student laborers at a given time average 100, and the research staff comprises 120, for a total of about 1,000 employees. Approximately two thirds of the staff are women, and a principle of equal pay for equal work is followed. All department heads are men, but the director admitted that the women do all the hard work; that we observed.

I asked the director a number of questions in our interview, and each was answered with the aid of the interpreters; but then each question was repeated to me for a comparison of our organization and experiences. Employees may or may not belong to the Communist party, but there is no union representing the employees. Each month every department head reports to the director on the progress in maintenance and research, on problems, and on the performance of employees. The outstanding workers may be recommended for a bonus, but this is supplementary income and an actual raise in pay is rare. A poor worker, or one with unexplained or unapproved absences, may be discharged. Attempts are made to place an employee in another position if he or she lacks a "green thumb" or proves inept in an assignment.

The professional staff may be graduates of a botanical institute and apply for open positions which are advertised in newspapers. College students may be assigned to summer work at the garden, and the Ministry of Higher Education decides what institutes need help and which students will be chosen. It was suggested to us that the students "obey the Ministry." When students graduate, the best are invited to accept employment.

Near Yalta is a vacation camp, called Artek, for outstanding elementary students throughout the Soviet Union. The Nikita staff visits the camp and explains the work of the garden; later groups of these children, immaculately uniformed, are given conducted tours of the garden. However, even while on vacation, the children have "working days," and these may be at the botanical garden.

The herbarium of the Nikita Botanic Garden is housed in a modern building, and the specimens are stored in wooden cases with attractive patterned veneer doors made of Juglans regia, the English walnut. The Englerian system is followed for families, but the genera are arranged alphabetically. Moth flakes are used as a fumigant, and specimens are affixed with cloth strips or sewed to

*An education exhibit open only to special groups. The balcony exhibit depicts the history of the garden. The lower floor illustrates the crops under study. Hands subtending a flower form the symbol of the Nikita Botanic Garden.*