

New Plants from Hungary Tolerating Urban Conditions

Gábor Schmidt

University of Horticulture and Food Industry, Budapest, Villányi út 35-43, H-1118, Hungary

Selection of woody ornamentals to tolerate environmental stress has been carried out in Hungary for over 30 years. This paper gives descriptions of some recently named clones and new cultivars.

INTRODUCTION

As a result of its geographic position, Hungary lends itself to selection of woody plants which tolerate environmental stresses. The summer is warm with temperatures reaching a maximum of 30 to 35°C, and the winter is cold and irregular with temperatures sometimes falling to between -26° and -30°C. Yearly rainfall varies between 380 and 820 mm and comes mostly in the autumn and winter. These extremes are multiplied on the poor sandy and saline soils of the Great Hungarian Plains, on the dry limestones and dolomites of low mountains, and in the dry, warm and polluted atmosphere of cities and towns.

Selection of woody ornamentals for such conditions started in the early 1950s by the Department of Horticulture and Dendrology of the University of Horticulture and Food Industry. The first results were three cultivars of *Tilia tomentosa* and seven cultivars of *Sorbus* species.

At present, the work is carried on at several establishments: University of Horticulture and Food Industry, Budapest; PRENOR—Landscaping Enterprise and Nursery, Szombathely; SASAD Cooperative Nursery, Budapest; Barabits and Sons Nursery, Sopron; FÖKERT Municipal Nursery of Budapest, Tahí; and Municipal Gardening Enterprise, Pécs.

DESCRIPTIONS OF CULTIVARS

As a result of increased selection work, many new hardy cultivars and named clones have been introduced in the past 10 years. The most important of which are listed below.

***Ailanthus altissima* 'Purple Dragon'**. *Ailanthus altissima* is the hardiest urban tree in Hungary; it tolerates drought and bad soils extremely well and grows like a weed in polluted environments. This clone is a female form found in Budapest. It has a straight leader, fast growth, and a regular rounded crown becoming flattened with age. The dark-purple, winged fruits are born in abundant clusters and retain their intensive colour from July through August and early September. Foliage is shiny green with red petioles and leaflet veins, and shoots purplish brown. Propagation: bench grafting in late winter, micropropagation, or root cuttings from micropropagated plants.

***Fraxinus ornus* 'Mecsek'**. Bearing the name of the mountain it originates from, 'Mecsek' is probably the finest globular form of *Fraxinus* ever selected in Europe. The crown is a perfect globe with a dark green foliage and crowded stout branches (ultimate crown diameter 3.5 to 4 m). White flowers open in May. Propagation: top-working (budding or grafting) on *F. ornus* or *F. pennsylvanica*.

***Prunus* 'Balaton'**. A narrow columnar form reaching an ultimate height of 5 to 6 m and a width no more than 1 to 1.5 m; rich blossoms of pink-eyed white flowers open February to March; healthy foliage and large sweet nuts in September characterize this cultivar. Propagation: budding in late August onto wild almond seedlings.

***Prunus laurocerasus* 'Piri'**. A compact semi-globe reaching an ultimate height of 0.6 to 1.0 m and a diameter of 1.0 to 1.4 m with leaves leathery, obovate, dark green in color, 3 to 6 cm long and 2 to 3 cm wide. Suitable for small gardens or as a ground cover and has a much better winter hardiness than *P. laurocerasus* 'Otto Luyken' in Hungary. Can tolerate 20 to 25°C below freezing without damage.

***Prunus laurocerasus* 'Mari'**. A wide shrub with upright branches reaching a height of 1.5 to 2 m. Leaves are leathery, dark glossy green, 6 to 8 cm long and 3 to 5 cm wide. Like *P. laurocerasus* 'Piri' survived winter temperatures 20 to 25°C below freezing with little or no damage. Both cultivars were bred by Dr. M. Józsa in Szombathely. Propagation: easy from semi-ripe leafy cuttings in August to September.

***Ribes alpinum* 'Soroksár'**. A fast-growing male form, with erect and later overhanging branches which produces a flattened and wider bush than *R. alpinum* 'Schmidt'. Ultimate height is 1.0 to 1.4 m with a diameter up to 2.5 to 3 m. Leaves are small, dark glossy green and resistant to diseases. Excellent ground cover for shade and sun, and along highways. Propagation: softwood cuttings in June.

***Salix* 'Golden Spiral'**. A fast growing corkscrew-willow, probably a spontaneous hybrid between *S. matsudana* 'Tortuosa' and *S. alba* 'Tristis'. It was found as a seedling near lake Velencei. Shoots, twigs, and branches are much contorted, light yellow in the summer, turning rich golden orange in the winter. Propagation: hardwood, softwood, or semi-ripe cuttings almost any time of the year.

***Sorbus aria* 'Favorit'**. A wide columnar form, rounded at the base and pointed and rounded towards the top. Ultimate height is 6 to 9 m, with a diameter of 2.5 to 3 m. Leaves are leathery obovate or leaves, 14 to 18 cm long and 7 to 8 cm wide, glossy green above and white tomentose beneath. Autumn colour is yellow, and fruits are downy and red. Propagation: budding in August onto *S. intermedia* or other *Sorbus* rootstocks.

***Tilia tomentosa* 'Bori'**. A small tree with a flattened globular crown no more than 4 m in diameter after 16 years. Leaves are relatively small, dull green above and silvery tomentose beneath, completely resistant to red mites, and free from fungus diseases. Propagation: top-working (budding) in August onto *T. tomentosa* or *T. platyphyllos* seedlings.

***Tilia tomentosa* 'Gray Pillar'**. A large tree with upright branches having a compact columnar form when young and becoming wider pyramidal at maturity. Leaves are leathery, dull green above and silvery grey beneath. It is resistant to red mites and free from fungus diseases. This was the fastest grower in the nursery among 38 selected clones and makes a completely straight upright stem without any staking. Propagation: budding in August, or bench grafting in February to March, on *T. tomentosa* or *T. platyphyllos* seedlings.