



from Russia

the first Russian rosarian

2010 – 155th anniversary of Ivan Vladimirovich Michurin

BY ALEKSANDR AND SVETLANA UKOLOVY

Ivan Vladimirovich Michurin was born on October, 28, 1855, in Vershina estate, not far from Dolgoje village in Pronskij district of Rjazansky province, Russia. He was the youngest of seven children although all his brothers and sisters died in early childhood. His mother, Maria Petrovna, died too, when he was less than five years old. Michurin spent his childhood in the wild. The estate was situated in the heart of the picturesque Russian stream-side forest, amid birches and oaks, alders and hazel groves, codlings, tall grass and flowers. The whole place, with its numerous brooks, gullies and ravines, hills, glades and margins, washed by Vershinovka and Viazovka rivulets, abounded with migratory birds and small animals.

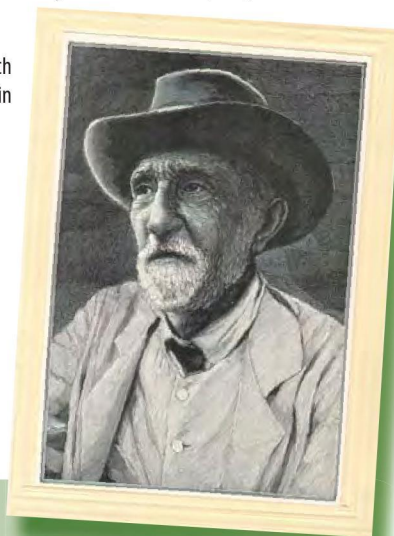
Ivan's father – Vladimir Ivanovich – subscribed to the published works of the Free Economic Society (Free Economic Society for the Encouragement of Agriculture and Husbandry), and received crop seeds and vegetable seeds as well as seeds of fruits from the Society. He carried out various experiments on fruits and ornamental plants and worked diligently on the crops in his garden.

Michurin became interested in plant growing while quite young. His favourite activity was collecting and sowing seeds, and the cultivation of fruits, vegetables and ornamental plants. While studying at home and in college in Pronsk Ivan Michurin spent all his spare time studying botany and working in the garden and in the apiary. In 1874 he married a daughter of a

worker – Alexandra Vasilievna Petrushina – who became an unselfish friend and assistant to the future great naturalist. In 1875 Ivan Vladimirovich started his first experiments on the breeding and selection of plants. The family's income was spent on purchasing new seeds and up-to-date editions on botany. In order to explore the condition of gardening in Central Russia, Ivan visited gardens in the Voronezh and Orlov regions, southeastern Byelorussia, a number of southern and southwestern districts of Russia, and some regions in Siberia. After ten years of intense work on selection Michurin created valuable varieties of apple tree – Antonovka Polutorofuntovaja (one-and-a-half-pound Antonovka), Renet Sugary, Renet Bergamot, Slavianka, Truvor; pear tree – Beree kozlovskaja; plum – Renclod zolotisty (goldish), Renclod shelonsky, sweet blackthorn and others. Winter-hardy varieties of cherries, almonds, grapes, cigarette tobacco, oil-bearing roses, etc. were first created in Central Russia by Michurin. By 1920, he had bred 154 new varieties of fruit, and had a large nursery at his disposal.

Ivan Vladimirovich Michurin died on June 7, 1935. Until the last moments of his life he dreamed of a wonderful garden where happy people from all over the world would live, he sought to bring the fruits of his creativity to millions of people.

Ivan Vladimirovich Michurin



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Ivan Vladimirovich Michurin (1855-1935) is a world famous breeder of many varieties of apple, pear, sweet cherry, plum and other fruits (apricot, sweet cherry, grape, raspberry, gooseberry, currant etc.). However not many people know that he cultivated some varieties of lilac, mock orange, white acacia, lily, and about 30 varieties of roses.

Unfortunately, all of them are lost now (as well as most of varieties of other crops). Nevertheless the name of I.V. Michurin is the first name in the Russian history of selection of the Queen of Flowers. Just on roses, he worked through some aspects of the theory and practice of plant breeding (in particular, the doctrine of the selection of the initial forms for hybridization, the elements of technology of remote crosses, etc.).

On his site he had collected, for the times, a very rich collection of species roses: *Rosa alba*, *R. berberifolia*, *R. centifolia*, *R. cinnamomea*, *R. leucantha*, *R. lucida*, *R. lutea*, *R. lutescens*, *R. rubrifolia*, *R. pimpinellifolia*, *R. rugosa*, etc. and rose cultivars: Bourbon, Nuazetovye, Poliantovye, Tea, etc. Initially, the roses were tested in the conditions of Central Russia, before the best of them were included in the selection process.

The concise characteristics of foreign varieties of roses, given by I.V. Michurin after testing them in his nursery, are of some practical and historical interest. Here are some of them:

Baronne Adolphe de Rothschild (Vernet, 1868)
Hardy, high-quality, white-pink.



Baronne Prevost (Desprey, 1843)
Very hardy, abundantly blooming, double, polished, pink.

Belle Poitevine (Briant, 1895)
Middle high, pink flowers, semi-double. Abundant blossom from spring to late autumn; all in all, the suitable rose for northern and central parts of Russia.

Celine Forestier (Frouillard, 1860)
Hardy, abundantly blooming, very fragrant, double, yellow, the most beautiful and rewarding.



General Jacqueminot (Roussel, 1853)
Hardy, semi-double, shining velvety red, abundantly blooming, sweetly scented.



Horace Vernet (Guillot, 1867)

Winter hardy, sweetly scented, double, velvety purple.



Jules Margottin (Margottin, 1853)

Fragrant, cherry-red, though in many aspects it's worse than the first one [**Triomphe de L'Exposition** – A.A.], nevertheless should be considered the second.

La Reine (Laffay, 1843)

Hardy, abundantly blooming, fragrant, double, purplish-pink.

Louise Odier (Margottin, 1850)

Bourbon, fragrant, fully double, bright pink, abundantly blooming till autumn, hardy.

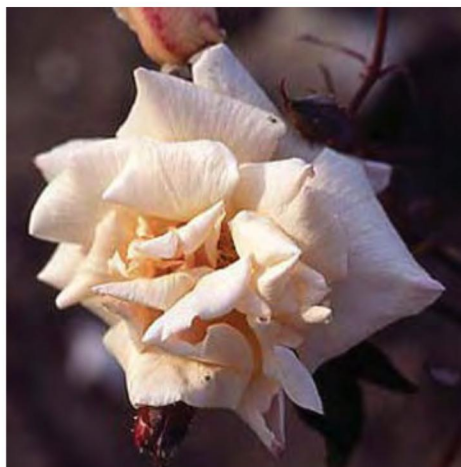
Marshall P. Wilder (Ellwanger et Barry, 1885)

Very hardy, double, very fragrant, shining-dark-cherry red, abundantly blooming.



Safrano (Beauregard, 1839)

Bright yellow, semi-double, abundantly blooming. Outstanding, both in hardiness and abundance of bloom, compared to other Teas.



Souvenir de Dr. Jamain (Lacharme, 1865)

Multiflorous, double, fragrant, purple-bluish.

Triomphe de L'Exposition (Margottin, 1855)

Fragrant, carmine-red, velvety, the best of winter and wet hardy of all remontant roses.

Of the varieties of roses I. V. Michurin singled out wrinkled rose (*Rosa rugosa*). He wrote:

It is in all respects a beautiful species of roses for the middle and northern parts of Russia. Undoubtedly hardy, blooming profusely, with a remarkably beautiful, like shagreen, dark green leaves, it also showed extremely admirable quality for the flower-lovers - a continual bloom from early spring until the frosts of autumn. It is extremely resistant to powdery mildew, mould and rust, and if, though very rarely, the disease occurs, as could be seen, plants withstood these diseases very easily and the damage was almost invisible.

Among the varieties of his selection (**Noble, Buketnaya, Bicolourous, Zarya Vostoka, Sister of Dawn, Brother of Dawn, Double White, Kerb Pink, Kerb White, Lawny, Mother of blue, Mother of yellow, Mother of climbing, Svetlana, Tatyana Michurina, N.I. Kichunov, Neptune, Prince of Varangians, Prince Rurik, Cream, Fairy, Tsarina of Light, Ceres, etc.**), many carried the genes of this species.

I suggest taking a closer look at the Michurin's varieties of rose (the originator's data were used in their descriptions):

Bicolourous

Origins: *R. lutea* **Persian Yellow** × *R. damascena* **Kazanlyk**.

Plants of this sort are "... although not double flowers, but very beautiful in their dual colour - Chinese pink inside, the purely yellow outside. A very suitable rose as a pendant [here - in addition – A.A.] to the well-known *R. lutea* **bicolour**

Zarya Vostoka

Origins: *R. tusnelda* × *R. kamshatica plena*.

"Low in height, abundantly blooming, buds are long, pale-pink. Blooms are large, semi-double, very pale pink, turning into a completely pure white, blooms in the second half of June until frost, of course, enduring." Exterior (habit) of the plant is close to *R. kamshatica*, weak fragrance.

Prince of Varangians

Origins: *R. rugosa* **Souven d'Eprem** × *R. bifera* **Souven de William Wood**.

"bud is long, black-slate-red; big semi-double blooms. Of beautiful velvety dark-red colour scheme not found in *R. rugosa*. Blooms not so readily.

Prince Rurik

Origins: a seedling of varieties **Prince of Varangians**, pollinated with own pollen.

"The whole habit of the plant and blooms is quite similar to *R. rugosa* except for the dark colour of its medium sized semi-double flowers. Currently, I don't have this variety; in autumn 1896 it disappeared without trace after a visit of a



Rosa lutea
Persian Yellow

foreign lover of roses to the nursery, luckily I had gathered the first fruits of it."

Cream

Origins: a seedling of *R. lutescens*.

"Of middle height. Flowers are cream-coloured, quite double, perfectly-formed, medium sized. Abundantly blooming. Buds are yellow, good rose for the northern areas due to its hardiness."

Mother of Yellow

Origins: *R. lutea* **Persian Yellow** × *R. lutescens*

"First blossomed in 1899, has dark foliage shaped like **Persian Yellow**. Growth is strong, upright and tall. Thorns and their arrangement resemble *R. lutescens*. Bloom is very abundant. Fragrant, not double, of bright deep yellow colour, darker than that of **Persian Yellow**. Fruits are bright red, bulb shaped, each contains from 5 to 15 perfectly round seeds, differing in good germination, and finally, what is most important, this rose accepts pollination from almost all the known (by me) species of roses. Next, a new variety is not subject to disease, like powdery mildew and rust...

Also, the roots of new roses, as I noted, did not suffer from fungus Asteroma.

Neptune

Origins: a seedling of **Prince Rurik** variety.

"Habit is quite similar to *R. rugosa*. Medium high. Stems are thick; the foliage is of a beautiful pale green colour. Blooms abundantly from spring until the snow in autumn. Buds are of a conic shape of medium length, black-reddish colour. Blooms are large, of reddish-blue- slate colour. Very rare unparalleled colour. The variety is "definitely hardy".

N.I. Kichunov

Origins: *R. lutea* Persian Yellow × *R. damascena* Kazanlyk.

Plants of this variety have a “beautiful double blooms of light old-lace colour with a particularly fine fragrance. The plant is strong, three arshins high, of course, quite hardy, abundantly blooming.”

Tatiana Michurina

Origins: Mother of Yellow (*R. lutea* Persian Yellow × *R. lutescens*) × *R. polyantha* Clothiede Soupert.

“The variety bloomed magnificently with full, perfectly-formed, double, strongly fragrant flowers of gentle floral white, kind of old lace shade.”

Fairy

Origins: *R. tusnelda* × *R. rugosa* Germanica.

“Medium high, the shoots are thick ... Buds are long, of pure pink colour. Perfectly-formed, semi-double, beautiful pink blooms. Very abundant bloom begins in mid June until the snow ... In all respects it's a beautiful rose.”

Tsarina of Light

Origins: (*R. lutea* Persian Yellow × *R. damascena* Kazanlyk) × *R. polyantha* Clothilde Soupert

“It has average growth, seldom reaching the height of three *arshins*; shoots a red-dark brown, dotted with a bit more thorns than the *R. lutea*, and the shape of the leaf and its segments is more circular, much wider and duller serrated, with more matte surface of the leaf plastins. Then, the foliage does not have a specific flavour as *R. lutea*'s leaves. Continuous abundant blooming, every single bloom stays not fading for a very long time... Blooms are full, double, of regular shape; bright silvery-pink colour, have an extremely strong and very pleasant fragrance. Harsh winters in our area this new variety stands without protection.

During comparative experiments in distillation (in an arranged by me indoor apparatus) of the flowers of this new variety and of **Kazanluk** oil-bearing rose it turned out that Tsarina gives a better distillate [rose oil - AA], both in quality and quantity.” “This is the first Russian oil-bearing rose.”

Rosa rugosa Germanica

Ceres

Origins: *R. rugosa* Germanica × *R. rugosa* Comte d'Eprem.

Medium high, shoots are very thick, very thorny. Fine foliage. The buds are massive, long, of dark purple colour. Blooms are very large, of a beautiful regularity (that is a rarity in *R. rugosa* and its varieties) vase shaped form, of pure purple colour, almost full double. Blooms from spring until frost. No doubt, hardy.”

Having learnt about the wonderful varieties of roses created by I.V. Michurin, Sophia Andreyevna Tolstaya - the wife of Leo Tolstoy - came to visit him. The great Russian writer and his wife were very fond of roses and Ivan Vladimirovich, out of respect and admiration for the personality and literary talent of Leo Nickolajevich Tolstoy, presented them some planting stock of his best varieties of roses as a gift.

Ivan Vladimirovich considered rose

Mlechnotsvetnaya the best rootstock for varietal roses: *R. leucantha* Bieb. represents itself, in all respects, as an ideal rootstock for cultivated varieties of roses. Extraordinarily strong growth, even, smooth neck, and rare thorns, the complete absence of root offshoots and outstanding stamina - are the main advantages of this type of rose. Not to mention the fitness/adaptability/suitability for grafting of stem rose, *R. leucantha* is simply irreplaceable for ordinary inoculation into the collet. None species of roses accept inoculation of all types of roses on themselves so easily, and there is no stock for grafted roses to grow on so luxuriantly as on *R. leucantha*.



In the records of I.V. Michurin we can meet some advice on agricultural methods of growing roses, which partly may be used by modern rosarians:

The best soil for roses is loam: clay admixed with river sand, nourished with decayed cow manure and leaf mould.

It is far better to plant in autumn; when planting, of course, the rose requires strong pruning, leaving no more than 5 branches; before planting dip roots into clay with manure. After planting it is useful to cover with a gray ground, leaving open three *vershka* of the top. During the summer, one should 10 times water it with the fertilizer.

In winter, roses need to be covered – be wrapped round with felt and straw, and shrubs – with some earth on top of straw or spruce branches, and again a little earth, so that it would not be scattered by wind. In the spring - open gradually.

Ivan Vladimirovich's tips on diseases of roses are still relevant:

The best antidote to [powdery mildew] is spraying plants with a solution of three *zlotniks* of copper sulphate and three *zlotniks* of quicklime in a *shtoff* of water.

Rust on roses can be completely destroyed by my newly discovered mixture, consisting of the juice of the... sow-thistle (*Sonchus oleraceus*). Rust develops due to infection of plants by parasitic fungi (*Phragmidium subcorticium*), which can be destroyed by the double or triple application of the milk of sow-thistle. The juice is obtained as a drop in the cut stem of the plant,

In other notes Michurin wrote about a similar effect when using wild lettuce, or Molokan (*Lactuca scariola*). Milk of these plants, according to Ivan Vladimirovich, is effective when directly applied on the affected areas and when sprayed as an aqueous milky solution.

Though the varieties of I. V. Michurin's rose selection are lost, we still have his records and several publications on various aspects of rose-growing, in particular, recommendations on selection of the initial parental pairs for hybridization, on technology of pollination, planting seeds, caring for seedlings, etc.

It's no wonder that a great friend of I.V. Michurin, the largest national expert on horticulture, gardening and ornamental horticulture, doctor of agricultural sciences, the author of the book published in St. Petersburg *Culture of Roses Grown Out-doors and Under Glass* (the first edition in

1893) and the album *300 Best Varieties of Roses* (1911) Nikolai Kichunov (1863 - 1942), called Ivan Vladimirovich “the first Russian rosarian”.



postscript

I. V. Michurin intended a special place for ornamental plants. He wrote:

“Our socialist cities should be beautiful. . .

Our country possesses huge plant wealth even for decorative purposes...

The most valuable and most beautiful breeds are in the deep woods on the far outskirts...

. . . the vast of our country has the world's diversity of tulips, lilies, amazingly beautiful orchids, roses, hyacinths, gladioli. What a Lonicera – honeysuckle, jasmines, a velvet tree, a Chinese ash! Or the most beautiful and enduring plant of Altai – red-colour maral [*Rhododendron dahuricum* - Dahurian rhododendron - AA], blooming even in the snow...

There could be given multitude of such examples...

Not only should the soul but the appearance of our country should be the most beautiful in the world!”

Quick Reference of Russian weights and measures

arshin – some 71 cm; vershok (pl. vershka) – some 4, 5 cm; zlotnik – some 4, 3 gr; shtoff – some 1, 23 l.