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ORIGINATOR OF THE FIRST CRIMEAN CULTIVARS OF *DIOSPYROS*

(devoted to the 100 anniversary of A.K. Pasenkov)

On February the 20th in 2014 it would be the 100th birthday anniversary of Pasenkov Arkadiy Konstantinovich. He was born in Kazakhstan, got education at comprehensive school and the State Pedagogical University in Pavlodarsk, biological department named after V.V. Kuibyshev. He successfully graduated university in 1937 and got his first degree diploma of “botanist-biologist”. Later he occupied a position of director at Aktyubinsky state fruit nursery, and from the beginning of 1939 he started for scientific work as a research assistant and head of fruit and berry nursery of Tomsk botanical garden. Since July of 1941 he

served in military units of Pacific navy, participated in battles for liberation of Manchzhuriya. He was awarded with medal “For Victory over Japan”. After demobilization in 1946 Arkady Konstantinovich resumed his scientific work and got a job of research assistant at introduction and selection department of Batumi botanical garden.

Working in Batumi Pasenkov A.K. considerably enlarged collection of the *Diospyros kaki* with new hybrid forms, 7 of them were referred to department of the state species test.

In summer of 1951 as subtropical fruit farming developed in the Crimea, A.K. Pasenkov was transferred to Nikitsky botanical garden, where he had worked for 23 years. He was engaged in collection and selection of such rare for the Crimea species, as *Diospyros* and *Feijoa*, as well as hybridization and adaptation in industry of nut-bearing cultures. Taking direct part 12 ha of collection nursery garden with *Circassian walnut* were founded in Steppe Crimea, most of its species and forms belonged to a group of early-maturing.

Vegetative fixation of 16 new cultivars of *Circassian walnut* from native selection and 4 cultivars from Bulgarian selection was conducted in that nursery.

While investigating *Circassian walnut* plantations in the Crimea, Arkadiy Konstantinovich found out 38 valuable for that region super late by beginning of vegetation forms of *Circassian walnut* which were characterized by high crop capacity, commercial and diseases-resistance.

Fruit belts and selective-nursery gardens of early-maturing *Circassian walnut* forms were planned thanks to his own initiative. Total area made 30 ha including such state farms as “Starokrymsky”, “Vinogradny”, “Zhemchuzhny” and collective farm “Ukraina”.

As a result of distant hybridization with pennant of early-maturing and divided –leaf forms of walnut Arkady Konstantinovich obtained dwarf early-maturing hybrids characterized by high crop capacity, large fruits and ability to early ripening.

In terms of intergeneric hybridization of walnut and pecan 1960 he found out economically valuable hybrid 60-1, which differed by heterotic development, relatively early phase of fruiting, high crop capacity and good commercial qualities of fruits.

According to order № 310 MSH USSR dated by 21.11.1968, 5 new cultivars of walnut selected in NBG thanks to A.K. Pasenkov as well were zoned and recommended for commissioning: “Starokrymsky 913”, “Bakhchisaraisky 491”, “Pervomisky 559”, “Vysokogorny 619”, and “Krymsky Yrozhayny 17-9”.

A.K. Pasenkov carried out scientific research with feijoa. He conducted agrobiological study of 200 feijoa fruiting selective forms, bred out of hybrid seeds, marked out 16 cultivar forms, perspective by crop capacity and commercial fruit qualities. He initiated development of vegetative propagation methods for the best feijoa forms – grafting on seedling stock of myrtle.

Anyway favorite culture of A.K. Pasenkova was *Diospyros*. In 1969 he successfully defended Master’s dissertation named “Biology of flowering and fruiting of *Diospyros kaki*”. As a result of cultivar form study of *Diospyros* in 1970 he wrote and published work “Resume of cultivar form study of *Diospyros kaki* growing on the South Coast of the Crimea” and besides it he developed and prepared for publishing “*Diospyros*. Methodic of primary cultivar form study”.

As a result of intraspecific and interspecific hybridization A.K. Pasenkov created selective fund of *Diospyros kaki*, its hybrids with *Diospyros virginiana* and *Diospyros lotus*. In 1968 it made possible to present 3 *Diospyros* cultivars of NBG selection to department of the State Strain Test: Mechta, Nikitsky Prevokhodny and Rossiyanka. Cultivar “Rossiyanka” possesses high level of frost-resistance (survives under conditions of 30°C below zero); moreover it is cultivated not only in the Crimea, but in south region of Ukraine as well.

“Working in the Garden, - head of subtropical cultures department A.A. Rykhter wrote, - A.K. Pasenkov acted as thoughtful, initiative and disciplined collaborator”. He participated actively in social and political life of the establishment, rendered assistant to state and collective farms in adaptation of subtropical fruit cultures in the Crimea. Besides scientific work A.K. Pasenkov was in social activities. He took position of Commander Deputy of the Garden volunteer public order squad, was a member of popular control group, Council Chairman of the first organization of scientific and technical Community, unchallenged agitator and political informer of the department.

A.K. Pasenkov published 24 scientific works. I remember him as a very active, kind and energetic person, full of new ideas and intention to improve scientific researches. PhD (Candidate of Agricultural Science), A.K. Pasenkov was an inexhaustible toiler and a real patriot of Nikitsky Garden.

A.K. Pasenkov passed away on November the 17th in 1974.

Principal directions of A.K. Pasenkov’s scientific researches are presented in his published works:

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2. Pasenkov A.K. Vegetative propagation ways of *Diospyros kaki* // Orchard and garden. – 1953. - №4. – Pp. 32-35.
3. Pasenkov A.K. increasing of *Diospyros kaki* productivity depending upon pollination // Bull. n/t/ inf. SNBG. – 1957. - № 5/6 – Pp.48-49.
4. Pasenkov A.K. Late-flowering walnut trees // Viticulture and horticulture of the Crimea. – 1959. - №3. – Pp. 27-28.
5. Pasenkov A.K. Improving of *Diospyros lotus* / Viticulture an horticulture of the Crimea. – 1960. - №2. – P.43-45.
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7. Pasenkov A.K. Culture of *Diospyros kaki* in the Crimea // Viticulture and horticulture in the Crimea. – 1961. - № 12. – Pp.39-40.

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10. Pasenkov A.K., Rykhter A.A. Selection of frost-resistant walnut trees in the Crimean conditions. In book: Reports of soviet scientists of 17 International Congress at horticulture. (Maryland, the USA). – M., 1966. – Pp. 200-203.
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14. Pasenkov A.K. see in the list of authors “Industrial encyclopaedia of horticulture”. – Kiev, 1969. – p.456.
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16. Pasenkov A.K. Overcoming disability to crossing in case of intraspecific hybridization of *Diospyros* // Bull. of the State Nikit.botan.garden. – 1969. – Issue 2 (9). – Pp.43-47.
17. Pasenkov A.K. Resume of *Diospyros kaki* cultivar study in Nikitsky Botanical Gardens // Works of the St.Nikit.botan.gardens. – Vol.17. – Pp.3-92.
18. Pasenkov A.K. Resume of *Diospyros kaki* cultivar study in Nikitsky Botanical Gardens. In Book: Resume of *Diospyros kaki* and olive cultivar study on South Coast of the Crimea. – 1970. – Vol. 47. – Pp.3-92.
19. Pasenkov A.K. Anomalous blooming of pecan (*Carya olivaeformis* Nutt.) // Bull. Main.botan.garden. – 1972. – Issue 83. – P.87.
20. Pasenkov A.K. Guidance for primary cultivar study of *Diospyros kaki*. – Yalta, 1973. – P.29.
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The article covers the main stages of life and scientific activity in Nikitsky Botanical Gardens of Pasenkov A.K., the candidate of Agricultural Science.