

Activities of Plum and Prune WG in 2018, 2019

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4th EUFRIN Plum and Prune working Group meeting *“Challenges of Plum Growing in Europe”*



Jelgava, Dobele, LATVIA 6.-8. 09. 2018.



**1st EUFRIN Plum and Prune WG
meeting
Holovousy, Czech Republic, 2006**



**Convener:
Jan Blažek**

**2nd EUFRIN Plum and Prune WG
meeting
Craiova, Romania, 2010**



**Convener:
Mihai Botu**

**3rd EUFRIN Plum and Prune WG
meeting
Scopelos, Greece, 2015**



**Convener:
Alexandros
Papachatziis**

Convener - Dr.biol. Edite Kaufmane

Participants – scientists and plum growers from Sweden, Germany, Romania, Lithuania, Poland, Greece, Netherlands, Czech Republik and Latvia.
14 oral presentations, **9** flash presentations

Main topics :

- Cultivar and rootstock testing
- Genetic Resources and Breeding
- Pests and Diseases
- Plum growing technologies
- Fruit quality, storage and processing



Edīte Kaufmane, Ilze Grāvīte, Laila Ikase
Plum growing and breeding Latvia

Session 1 Cultivar and rootstock testing

Madaline Butac, et.al. Orchard performance of some plum cultivars grafted on different rootstocks

Mark Ravesloot, Alma van der Heiden Performance of the plum dwarfing rootstock WUR S766 in the Netherlands

Elżbieta Rozpara Investigation of fruit quality and agronomic value of some plum cultivars resistant to PPV in collection of RIH in Skierniewice, Poland

Mirosław Sitarek Evaluation of 'Docera 6' and 'Dospina 235' clonal rootstocks for plum in Poland

Session 2 Genetic resources and breeding

Walter Hartmann Sharka resistant plum hybrids and cultivars

Madalina Butac, Mihai Botu, et.al. Plum germplasm resources and breeding in Romania

Florin Stănică, Lavinia Mihaela Iliescu, et.al. Behaviour of some local Romanian prune selections in Bucureşti area

Inger Hjalmarsson Plum cultivars in Sweden. History and conservation for future use

Session 3 Plum growing technologies

Florin Stănică, Lavinia Mihaela Iliescu, et.al. Behavior of some prune varieties under different planting systems and canopies in Bucureşti area

Session 4 Pest and diseases

Catița Plopa, et.al. Viral status of plum mother plantations in three important centers from Romania

Session 5 Fruit quality, storage and processing

Krzysztof Rutkowski et al. Optimum harvest date and storage of plums - the latest research at

Dzintra Dēķena, et.al. Influence of rootstocks on winter-hardiness of plum generative buds during wintering period in two growing regions

Juozas Lanauskas, et.al. Plum cultivar evaluation on *Prunus cerasifera* Ehrh. Rootstock in Lithuania

Laila Ikase Diploid plum genetic resources and variety testing in Latvia

Ilze Grāvīte, et.al. The influence of different pruning systems on the beginning of domestic plum production and yield

Jan Wolf, Tomáš Nečas The possibilities of spring budding in the conditions of the Czech Republic for cultivation of plum nursery trees

Ingrida Mazeikiene, Darius Kviklys, et.al. Influence of ribavirin on *Prunus domestica* L. regeneration, genome stability and virus eradication in vitro

Inta Krasnova, Anita Olšteine, Dalija Segliņa, Vitalijs Radenkovs
Use of myrobalan plum (*Prunus cerasifera*) in the diversification of chicken barbecue flavor

Vitālijs Radenkovs, Edīte Kaufmane, et.al. The influence of 1-methylcyclopropene on plum (*Prunus domestica* L) quality during post-harvest storage

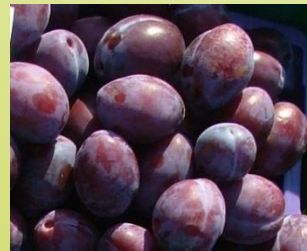
Paweł Górnaś, et.al. Dalija Segliņa. Plum industrial by-products as a source of oil, essential fatty acids, tocopherols, tocotrienols, carotenoids and squalene: Impact of the species and genotype

At present the scale of plum growing in Latvia (64,59 m2) is small (less than 100 ha) , we are optimistic, because:

- In recent years areas of commercial plantations (integrated and biological) increase.
- Variety assortment changes, new, better cultivars recommended by Latvian institute of Horticulture are planted.
- Growing technologies change, more attention is paid to fruit quality (in some commercial orchards plantations were established with modern tree support systems – espaliers).
- Consumers more often choose local fruits.
- Processing enterprises develop, which look for new ways of plum products (puree for children «Rūdolfš», dried and candied plums, gelatos, etc.)



Cultivars **'Sonora'**, **'Adelyn'**, **'Ance'**, **'Laine'** are suitable for commercial growing in all territory of Latvia.



'Lotte' has tasty and good quality fruits, but its winter-hardiness is not satisfactory all in Latvia. It can be recommended for locations with the most favourable conditions.

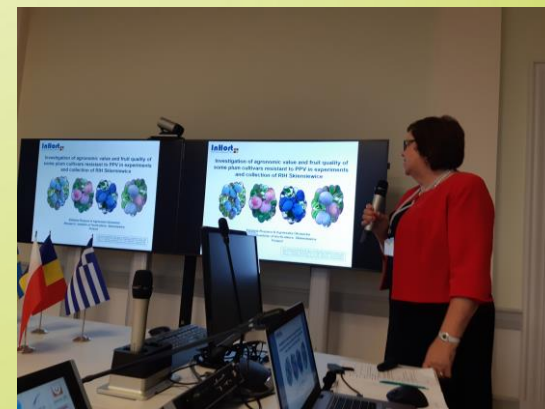
Poland...

Elżbieta Rozpara, Miroslav Sitarek

In the last 10 years, plum harvests and exports have fallen significantly, although still produced annually on average around 90 thousand tonnes, this is 1.5 times less than in 2008 and almost 2 times less than in 1992.

Scientists have explained this to a large extent with the widespread disease in Poland, **Shark (caused by the Plum Pox virus), and a lack of varieties resistant to it.** In addition to this feature, high fruit quality, including free stone, transportation, productivity and winter hardiness, is also important.

Therefore, the Institute of Horticulture in Skierniewice has long-term breeding and variety and rootstock testing experience.



Poland...

- W. Hartman's first Sharka-resistant variety **'Jojo'** – quality and yield in Polish conditions is different, depending on the region. Not everywhere, it's a good thing. Yields vary according to rootstock and place 25.5-30,3 kg/per tree. Overall, the quality of the fruit is satisfactory and the taste is medium.
- W.Hartman's new varieties – **'Jofela'** and **'Joganta'** were tested from 2015. The fruits of 'Jofela' are medium-sized (30-40 g), beautiful, tasty, free-stone. 'Joganta' has a very big fruits (50-80 g), beautiful, free-stone, but taste mediocre, but the tree is spure-type, easy to prune.
- In South Poland, an accidentally found seedling, which, growing up in a virus-infected garden, shows absolute resistance to Shark. It's called **'Temano'**, fruits- blue, very tasty, free-stone, but small (22-25 g), ripening - early, a month before 'Jojo'. The trees are very healthy and productive. There are very high expectations for commercial healing of this variety, particularly in the biological system.
- The trial with Sharka resistant rootstocks **'Docera 6'** un **'Dospina 235'** and 'Jojo' was held in Poland. The yeald lower than on control rootstocks, but the quality of frruits was better.



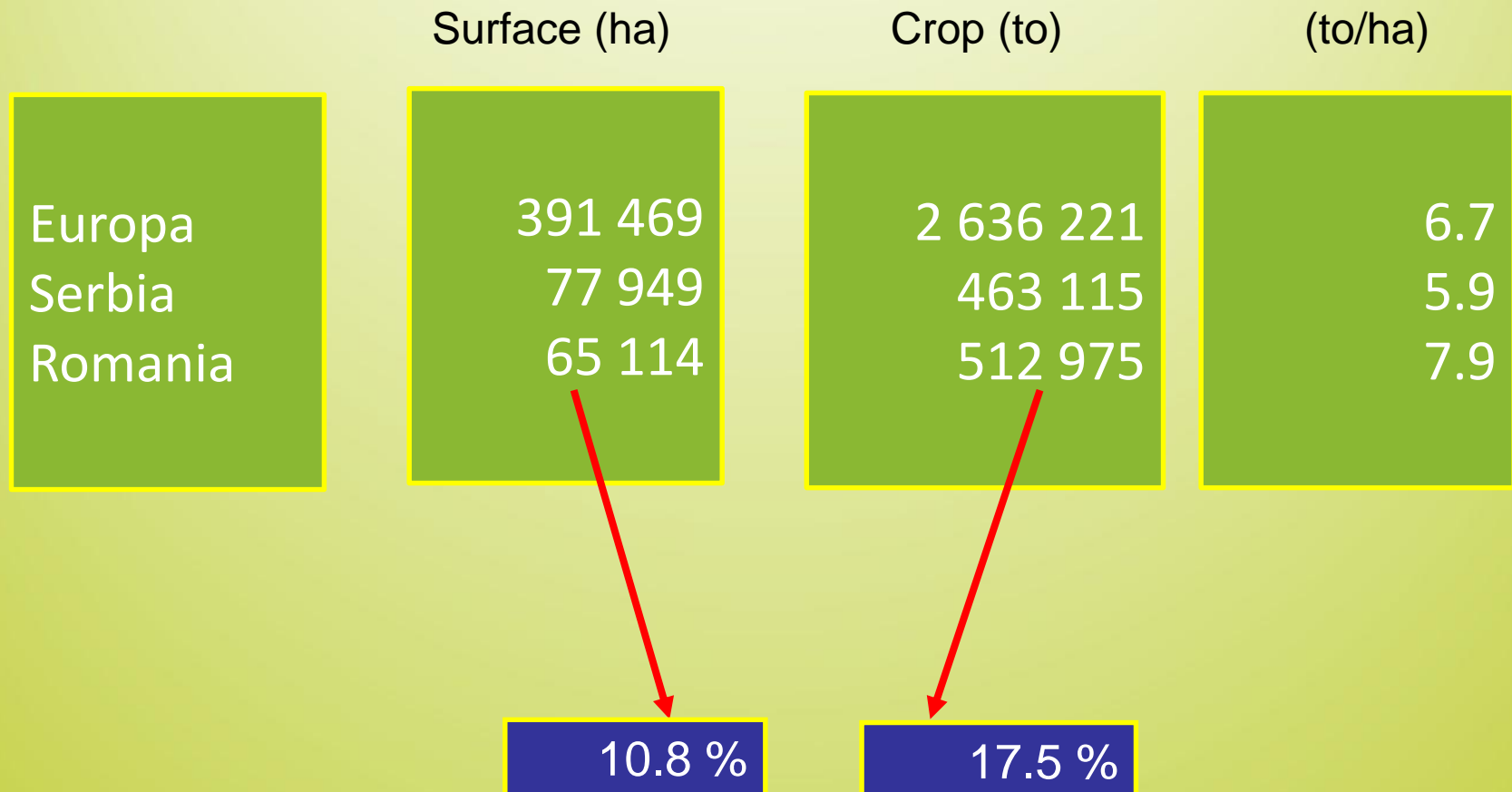
Temano



Jojo/Dospina 235

Romania – one of the biggest plum growing are in EUROPA

PLUM CULTURE IN EUROPE AND ROMANIA (FAO data, 2018)



Romania –Butak, M., Iliescu, L.M., Plopa, C.

Madaleina Butak informed about the new local rootstocks 'Adaptabil', 'Mirodad 1' un 'Bn4Kr', and cultivars 'Andreea', 'Pitestean', 'Romanta', 'Agent', 'Roman'.

Sharka resistance is one of the most important problem also in Romania.



ROMAN



AGENT



**ANDREEA/
Adaptabil**



Gemenea



Brumării

Germany

Sharka resistant plum hybrids and cultivars – W. Hartmann

- Plum pox virus is the most dangerous virus in fruit growing. In the last 3 decades the economical loss was summarized to nearly 10,000 mill. €
- A succesful breeding programme was performed for many years at University of Hohenheim (Germany)- in 1990 the **first resistant cultivar ‘Jojo’ was introduced.** ‘Jojo’ is cultivated in many European countries, but its fruit quality is not very good.
- After many crossings, testings, etc. **three new sharka resistant cultivars were selected: ‘Jofela’, ‘Joganta’, ‘Jolina’** and hybrids **Nr. 6364, 8627, 7533,7410 un 8630.**



Technical tours for participants of the conference were provided, which included introducing with different plum trials and laboratories of Institute of Horticulture at Dobele. The participants very much appreciated the familiarization with Institute, as well as tasting more than 40 different plum cultivars, 5 different types of dried plums and others products.



On the last day of the event participants also had the opportunity to visit the plum commercial farms in different regions of Latvia

More information about the conference is available:

- Presentations, et.c. :<http://www.darzkopibasinstituts.lv/lv/4th-eufrin-plum-and-prune-wg-meeting-challenges-of-plum-growing-in-europe>

- proceedings:

<https://content.sciendo.com/view/journals/prolas/73/3/prolas.73.issue-3.xml>





The next Symposium will be in **Zlatibor (Serbia) in July 7-10, 2020.**

Next EUFRIN **Plum and Prune working Group meeting- in Skiernewice (Poland) in 2022**

The new EUFRIN plum and Prune WG chair – **Mirosław Sitarek**

Email: miroslaw.sitarek@inhort.pl





*Thank for your
attention!*