UPOV

International Union for the Protection of New Varieties of Plants

E

Technical Working Party for Fruit Crops **TWF/50/13**

Fiftieth Session
Budapest, Hungary, June 24 to June 28, 2019

Original: English
Date: July 3, 2019

REPORT

adopted by the Technical Working Party for Fruit Crops

Disclaimer: this document does not represent UPOV policies or guidance

Opening of the session

1. The Technical Working Party for Fruit Crops (TWF) held its fiftieth session in Budapest, Hungary, from June 24 to 28, 2019. The list of participants is reproduced in Annex I to this report.

2. The session was opened by Mr. Jean Maison (European Union), Chairman of the TWF, who welcomed the participants and thanked Hungary for hosting the TWF session.

3. The TWF was welcomed by Mr. Tamás Tarpataki, Deputy State Secretary for Agricultural Markets, Ministry of Agriculture. Mr. Tarpataki gave a presentation on the agricultural sector in Hungary and on the National Agricultural Research and Innovation Centre (NARIC FRI). A copy of the presentation is provided in Annex II to this report.

4. The TWF received a presentation by Mr. György Pernesz, Head of the Variety Testing Department for Horticultural Crops, National Food Chain Safety Office (NÉBIH), on Hungary's horticultural variety testing and registration. A copy of the presentation is provided in Annex III to this report.

5. The TWF received a presentation by Mr. Jean Maison on plant variety protection in the European Union. A copy of the presentation is provided in Annex IV to this report.

Adoption of the agenda

6. The TWF adopted the agenda as reproduced in document TWF/50/1 Rev. 2.

Short reports on developments in plant variety protection

(a) Reports on developments in plant variety protection from members and observers

7. The TWF noted the information on developments in plant variety protection from members and observers provided in document TWF/50/3 Prov. The TWF noted that reports submitted to the Office of the Union after June 14, 2019, would be included in the final version of document TWF/50/3.

(b) Reports on developments within UPOV

8. The TWF received a presentation from the Office of the Union on latest developments within UPOV, a copy of which is provided in document TWF/50/2.

TGP documents

9. The TWF considered document TWP/3/1 Rev. and TWF/50/4.

Matters for adoption by the Council in 2019

10. The TWF noted the revisions previously agreed by the TC to documents TGP/7, TGP/8, TGP/10, TGP/14 and TGP/15 that would be proposed for adoption by the Council at its fifty-third ordinary session, to be held in Geneva on November 1, 2019, subject to approval by the CAJ, at its seventy-sixth session, to be held in Geneva on October 30, 2019.

Possible future revisions of TGP documents

TGP/7: Development of Test Guidelines

Characteristics which only apply to certain varieties

11. The TWF considered document TWP/3/9.

12. The TWF noted the request to provide suitable examples of quantitative and pseudo-qualitative characteristics to demonstrate how the proposed approach might be used in a way that would not present risks for decisions on distinctness. The TWF also noted the request to provide suitable examples of unsuitable cases to demonstrate the risks for decisions on distinctness of excluding varieties from observation on the basis of a preceding quantitative or pseudo-qualitative characteristic.

13. The TWF agreed that the following quantitative characteristic from the Test Guidelines for Fig (TG/265/1) was a suitable example to demonstrate how the proposed approach might be used in a way that would not present risks for decisions on distinctness.

Characteristic 17 (QN): “Leaf: predominant type: entire (1); three-lobed (2); five-lobed (3)
Characteristic 18: “Only varieties with predominant leaf type: entire: Leaf: shape…”

TGP/8: Trial Design and Techniques Used in the Examination of Distinctness, Uniformity and Stability

The Combined-Over-Years Uniformity Criterion (COYU)

14. The TWF noted the invitation by the United Kingdom for interested experts to get in contact for testing the new software containing the improved method of calculation of COYU.

15. The TWF noted the invitation by the TWC for the expert from the United Kingdom to draft a replacement section for document TGP/8 on the method of calculation of COYU.

Data Processing for the Assessment of Distinctness and for Producing Variety Descriptions

16. The TWF considered documents TWP/3/10 and TWF/50/12.

17. The TWF noted the summary of different approaches used by members of the Union to convert observations into notes for producing variety descriptions of measured characteristics, as set out in document TWP/3/10, Annex II.

18. The TWF noted the request by the TC for the experts from France, Germany, Japan and the United Kingdom to provide information on the circumstances in which their methods would be suitable, including the method of propagation of the variety and other factors that had been used in deciding to use the method.

19. The TWF noted the additional information provided in Japan, as reproduced in document TWF/50/12.

TGP/14: Glossary of Terms Used in UPOV Documents

Color names for the RHS Colour Chart

20. The TWF considered document TWP/3/11.

21. The TWF agreed with the proposal for the revision of the list of UPOV Color Groups in document TGP/14 “Glossary of Terms used in UPOV Documents” on the basis of the color groups set out in document TWP/3/11, Annex I.

22. The TWF agreed with the proposal for the revision of document TGP/14, Section 2, Subsection 3: “Color”, and Subsection 3: Annex: “Color names for the RHS Colour Chart”, to reflect the introduction of the revised list of UPOV Color Groups on the basis of the proposal set out in document TWP/3/11, Annex II.

23. The TWF noted that, in the European Union, the RHS group colour naming is used for the purpose of examining denominations.

24. The TWF noted that the RHS Colour Chart was not commonly used in the fruit sector for DUS examination. However, the TWF noted that it might be appropriate to refer to the guidance in document TGP/14 on the use of color charts to see when it could be relevant to be more precise in the description of color. The TWF agreed that it might be useful for variety descriptions but not in the case of distinctness assessment. The TWF was informed by an expert from New Zealand of a test done by a DUS expert in New Zealand, on the use of RHS Colour Chart in apricot DUS examination. The TWF invited the expert from New Zealand to make a presentation at is next session, under agenda item “matters relevant for DUS examination in the fruit sector” on the work done in New Zealand.

TGP/15: Guidance on the Use of Biochemical and Molecular Markers in the Examination of Distinctness, Uniformity and Stability (DUS)

New example: Characteristic-specific marker with incomplete information on state of expression

25. The TWF considered document TWP/3/12.

26. The TWF noted that the TC had agreed that document TGP/15 should be amended to clarify that it was the responsibility of the authority to decide on the reliability of the link between the gene and the expression of the characteristic.

27. The TWF noted that the TC had agreed to include an explanation in document TGP/15 that it would be the responsibility of the respective TWP and the TC to assess whether the reliability of the link between the gene and the expression of the characteristic was satisfied in order to include a method in the Test Guidelines.

28. The TWF noted that the TC had agreed that a new example should be added to document TGP/15 to illustrate a situation where the characteristic-specific marker does not provide complete information on the state of expression of a characteristic.

29. The TWF agreed with the proposal for a new example be added to document TGP/15 to illustrate a situation where the characteristic-specific marker does not provide complete information on the state of expression of a characteristic, as set out in the Annex to document TWP/3/12.

New proposals for revisions of TGP documents

TGP/7: Development of Test Guidelines

Procedure for partial revision of UPOV Test Guidelines

30. The TWF noted that the TC had considered a proposal to revise the procedure for partial revisions of Test Guidelines. It further noted the request to clarify under which circumstances changes would need to be implemented to UPOV Test Guidelines at short notice, and to clarify the type of changes that were intended to be covered by the proposed procedure, by providing specific examples of changes intended to be covered by the proposed procedure.

31. The TWF welcomed the possibility to revise the procedure for partial revisions of Test Guidelines, allowing the possibility for experts to make new proposals in the course of the year and encouraging

international harmonization of current practice for DUS examination. As requested by the TC, the TWF agreed the accelerated procedure should apply:

- For proposals to delete a characteristic
- For proposals to add a new state of expression and/or add a new illustration
- For proposals to add new example varieties

32. The TWF agreed that this accelerated procedure should not be applied:

- For proposals for grouping characteristics
- For proposals to add new characteristics

33. The TWF agreed that the accelerated procedure for partial revisions of Test Guidelines should respect the agreed timetable to prepare and circulate documents before the session, to allow sufficient time for consideration by members of the Union. It further highlighted the importance for all relevant TWP experts to be invited to comment on any proposal for new partial revisions of Test Guidelines in the forthcoming session and suggested, in that regard, to include all participants of the previous TWP session in the communication.

Proprietary method of assessment for male sterility

34. The TWF noted that the TC, at its fifty-fourth session, had agreed that members should propose any alternative methods or markers for DNA marker tests in Test Guidelines.

Suitability of characteristics in previous versions of Test Guidelines

35. The TWF noted that the TC, at its fifty-fourth session, had recalled that it was the responsibility of the TWPs to assess whether characteristics met the requirements for a characteristic, as set out in document TGP/7, including those characteristics in previously adopted Test Guidelines.

Presentation of full scale of notes for quantitative characteristics in Test Guidelines

36. The TWF noted the proposal for the revision of document TGP/7 and agreed that all states of expression for quantitative characteristics should be presented in Test Guidelines.

37. The TWF welcomed the proposal to present the full scale of notes for QN characteristics in Test Guidelines as it would provide greater clarity for DUS examiners, in particular in the case of testing at breeders' premises. It further agreed that it would improve the quality of the data provided.

TGP/12: Guidance on Certain Physiological Characteristics

Explanations on disease resistance characteristics

38. The TWF noted that the TC, at its fifty-fourth session, had agreed to await the TWV discussion on disease resistance characteristics in DUS examination before considering whether to develop further guidance.

Program for the development of TGP documents

39. The TWF noted the program for the development of TGP documents, as set out in document TWP/3/1, Annex VI.

Access to plant material for the purpose of management of variety collections and DUS examination

40. The TWF received a presentation on "Canada's experience in accessing plant material for DUS testing" by an expert from Canada as presented in document TWF/50/9. The TWF also received presentations on "China's practice in accessing to plant materials for variety collection management and DUS test" by an expert from China and "Access to plant material for variety testing purposes: Status quo, problems and possible solutions" by an expert from Italy. Copies of these presentations would be published as an addendum to document TWF/50/9. The TWF also received oral reports by experts from the European Union and Spain on

the situation in relation to access to plant material for the purpose of management of variety collections and DUS examination.

41. The TWF noted the following difficulties and challenges in relation to access to plant material for the purpose of management of variety collection and DUS examination:

- Plant health (risk to introduce pathogens in a variety collection)
- Importing plant material (phytosanitary measures)
- Lack of understanding from breeders on the merit to submit material of their varieties for reference purposes
- Lack of willingness of breeders to make their material available in cases where the DUS test takes place at the premises of another breeder
- Breeders requesting a guarantee about the use of the plant material provided
- Building, maintaining and renewing a collection of living plant material
- Often no access to plant material on the market, circulation of material in closed networks (club varieties)
- Limited use of technologies that could help: DNA, image analysis in limiting the necessity to transfer plant material
- Increasing number of protected and non protected varieties to be included. In the fruit sector, varieties are often developed worldwide and are adapted to grow in a wide range of environments
- Difficulty to access information (in particular when varieties are registered with different denominations or synonyms in national catalogues)

42. The TWF recalled the guidance provided in document TGP/4 “Constitution and maintenance of variety collections”, and in particular the importance of cooperation, as reproduced below:

> “[…] 3.1.2.2 Sources of living plant material
>
> 3.1.2.2.4 Breeders are an important source of living plant material and cooperation with breeders is encouraged (see Section 3.2.3). In particular, for protected varieties, breeders have a particular incentive to maintain their varieties since lack of maintenance of a variety may lead to the cancellation of the plant breeder’s right. […]
>
> 3.2.2 Cooperation between authorities
>
> 3.2.2.1 For the establishment of variety collections, the availability of information on varieties of common knowledge is a key requirement. Exchange of information between authorities, breeders, botanic gardens, gene banks, and any other possible source of information is very important to define the list of varieties to be included in the collection (see Section 2.2). […]
>
> 3.2.3 Cooperation with breeders
>
> 3.2.3.1 Cooperation is a means by which authorities can increase the efficiency of the establishment and maintenance of variety collections, consequently strengthening plant breeders’ rights.
>
> 3.2.3.2 Breeders are particularly encouraged to cooperate in the provision of living plant material, on the basis that the inclusion of varieties in the growing tests and other trials is important for the quality of the examination of distinctness and in consequence the quality of protection for a variety.
>
> 3.2.3.3 Cooperation with breeders can involve, for example, breeders or breeders’ associations maintaining a collection of living plant material which is made available to the testing authority as required.”

43. The TWF agreed that breeders are an important source of information and living plant material and that it was in the interest of the breeders to cooperate in the constitution and maintenance of variety collections. The TWF noted the comment by a representative from CIOPORA on the importance to protect breeders’ interests when plant material is provided by breeders. They further commented on the risk perceived by breeders when examination offices performed breeding activities and how to ensure that the living collections were not used for breeding purposes. The TWF highlighted the need to have a high level of trust between PVP offices and breeders to ensure fruitful cooperation. The TWF noted that the European Union has adopted a policy on the use of plant material submitted for DUS testing purposes.

44. The TWF agreed to continue the discussion at its next session and invited the expert from Italy to prepare a document summarizing the issues faced by PVP offices and breeders, and to make proposals on how these issues might be addressed within UPOV. The TWF noted that experts from Canada, Chile, China,

European Union, France, Germany, New Zealand, Spain and CIOPORA would help in preparing this document.

DUS examination of mutant varieties of apple

45. The TWF considered document TWF/50/10 and received a presentation on "DUS examination of mutant varieties of apple" by an expert from the European Union. A copy of the presentation is provided in the Annex to document TWF/50/10 Rev..

46. The TWF noted the developments since the forty-ninth session of the TWF in 2018. The TWF noted that, without an appropriate variety collection for the DUS examination, the accuracy of the DUS report might be affected, which could inhibit cooperation and exchange of DUS reports between PVP Offices for apple mutant varieties.

47. The TWF was informed by the European Union that discussions were being held in the European Union on the possibility to observe applications for mutant varieties of apple in a different location because of the strong influence of the environment on the fruit color. It was observed that some varieties were bred in an environment quite different from the conditions under which the DUS testing was conducted in a centralized testing system. The TWF agreed that the current UPOV guidance provided for fruit crops explained that tests were normally conducted at a single location and it might not be appropriate to deviate from this guidance in particular cases (e.g. Gala mutant varieties).

48. The TWF noted the comment made by the expert from the European Union that measurements for characteristics (instead of visual observations) had proven to be useful in court cases based on DUS reports. The TWF agreed that image analysis could be considered for the observation of color but recalled that statistical analyses were not commonly used in the DUS examination for fruit crops.

49. The TWF invited the expert from the European Union make a presentation at its fifty-first session on further developments in the European Union on DUS examination of mutant varieties of apple.

Matters relevant in DUS examination for the fruit sector

50. No presentation was prepared for consideration at the session. However, the TWF agreed to discuss the following topics, under this agenda item, at its fifty-first session:

- "Blueberry, new production techniques and its possible influence on the expression of characteristics", to be prepared by experts from Canada and New Zealand;
- "Raspberry CPVO project", to be presented by an expert from Germany;
- "Strawberry ring test", to be presented by an expert from the European Union;
- "Test on the use of RHS Colour Chart in apricot DUS examination in New Zealand", to be presented by an expert from New Zealand (see paragraph 24 of this document).

Guidance for drafters of Test Guidelines

51. The TWF considered document TWP/3/8.

52. The TWF noted the issues on the web-based TG template addressed during 2018, as set out in document TWP/3/8, paragraph 11.

53. The TWF noted the issues currently being addressed on the web-based TG template, as set out in document TWP/3/8, paragraph 12.

54. The TWF noted that the Office of the Union would issue a circular to identify requirements of UPOV members for the development of individual authorities' test guidelines using the web-based TG template.

55. The TWF received a demonstration by the Office of the Union and noted that training on the web-based TG template would be provided to all TWPs, at their sessions in 2019. The TWF thanked the Office of the Union for the development of this efficient tool and welcomed regular presentations at Technical Working

Parties, as an introduction to new participants and as an opportunity for experienced users to clarify matters of concern.

Molecular Techniques

56. The TWF considered document TWP/3/7.

Developments at the seventeenth session of the Working Group on Biochemical and Molecular Techniques, and DNA-Profiling in Particular

57. The TWF noted the report on developments in the TWPs and BMT, as set out in document TWP/3/7, paragraphs 7 to 72.

58. The TWF noted the draft agenda for the BMT at its eighteenth session, as set out in document TWP/3/7, paragraph 73.

Developments at the fifty-fourth session of the Technical Committee

Review of document UPOV/INF/17 "Guidelines for DNA-Profiling: Molecular Marker Selection and Database Construction ('BMT Guidelines')

59. The TWF noted that the European Union, France and the Netherlands would be invited to prepare a new draft of document UPOV/INF/17 for consideration at the eighteenth session of the BMT, as set out in document TWP/3/7, paragraph 75.

Cooperation between international organizations

60. The TWF noted that the TC had agreed that UPOV and OECD should make progress on the matters previously agreed by the TC, namely:

(a) to develop a joint document explaining the principal features of the systems of the OECD, UPOV and ISTA;

(b) to develop an inventory on the use of molecular marker techniques, by crop, with a view to developing a joint OECD/UPOV/ISTA document containing that information, in a similar format to UPOV document UPOV/INF/16 "Exchangeable Software", subject to the approval of the Council and in coordination with OECD and ISTA; and

(c) the proposal for the BMT to develop lists of possible joint initiatives with OECD and ISTA in relation to molecular techniques for consideration by the TC.

61. The TWF noted that ISTA would be invited to join the above initiatives, when in a position to do so.

62. The TWF noted that the Office of the Union would prepare a draft of a joint document explaining the principal features of the systems of the OECD, UPOV and ISTA, for consideration by the BMT, at its eighteenth session, on the basis of relevant texts from the World Seed Partnership and the frequently asked question on the use of molecular techniques in the examination of DUS, as set out in document TWP/3/7, paragraph 79.

63. The TWF endorsed the following elements for the inventory on the use of molecular marker techniques, by crop, proposed by the Office of the Union, with the additions suggested by the TWV to reflect the current status of molecular marker techniques (i.e. already in use or in development). (highlighted in grey):

Country or Intergovernmental Organization using molecular marker technique
Source [the name of the Authority] and Contact details [email address]
Type of molecular marker technique
Status (i.e. in current use or in development)

Crop (s) for which the molecular marker technique is used and characteristic concerned (in the case of use) [botanical name(s) and UPOV code(s) to be provided]
Purpose of the use of the molecular technique [UPOV model "Characteristic-Specific Molecular Markers", UPOV model "Combining Phenotypic and Molecular Distances in the Management of Variety Collections", Purity, Identity, Verification of hybridity]
Is the molecular marker technique used as part of Seed Certification in the last two years? [National certification, OECD certification] [relevant for OECD seed schemes]
In the last 2 years, how many times did the Authority use the molecular marker techniques?
The molecular marker technique is covered by [UPOV Test Guideline(s), UPOV TGP document(s), other document(s) (please specify)]
Is the molecular technique validated? [If yes, please specify a particular organization or authority] [relevant for OECD seed schemes]

64. The TWF noted that, on the basis of the comments received from the TWPs and BMT, proposed elements for the inventory on the use of molecular marker techniques, would be presented for consideration by the TC at its fifty-fifth session, as set out in document TWP/3/7, paragraph 82.

65. The TWF noted that, subject to agreement by the TC at its fifty-fifth session, a circular would be issued to request the member of the Union to complete the survey as a basis to develop the inventory on the use of molecular marker techniques, by crop, after coordination with the OECD Seed Schemes Bureau, as set out in document TWP/3/7, paragraph 83.

66. The TWF noted that the BMT, at its eighteenth session, would be invited to develop lists of possible joint initiatives with OECD and ISTA in relation to molecular techniques for consideration by the TC at its fifty-fifth session, as set out in document TWP/3/7, paragraph 84.

Revision of document TGP/15 "Guidance on the Use of Biochemical and Molecular Markers in the Examination of Distinctness, Uniformity and Stability (DUS)"

Revision of the model "Combining phenotypic and molecular distances in the management of variety collections"

67. The TWF noted that the Model "Combining Phenotypic and Molecular Distances in the Management of Variety Collections" of document TGP/15, Section 2.2, would be revised at a later stage once an additional threshold level has been implemented in France, as set out in document TWP/3/7, paragraph 87.

Proposal for inclusion of a new model "genetic selection of similar varieties for the first growing cycle"

68. The TWF noted that the TC had agreed with the inclusion of a new model "Genetic selection of similar varieties for the first growing cycle: example French Bean" in document TGP/15, as presented in document TWP/3/7, Annex II

69. The TWF noted that a draft of document TGP/15/2 "Guidance on the Use of Biochemical and Molecular Markers in the Examination of Distinctness, Uniformity and Stability (DUS)" incorporating the new model would be presented to the seventy-sixth session of the CAJ, to be held on October 30, 2019, and if agreed by the CAJ, a draft of document TGP/15/2 would be presented for adoption by the Council at its fifty-third ordinary session, to be held on November 1, 2019, on that basis.

Report of work on molecular techniques in relation to DUS examination

70. The TWF noted that the text from document UPOV/INF/18/1 would be introduced in document TGP/15 to clarify that it was the responsibility of the authority to decide on the reliability of the link between the gene and the expression of the characteristic, as set out in document TWP/3/7, paragraph 93.

71. The TWF noted that document TGP/15 would include an explanation that it is the responsibility of the respective TWP and the TC to assess whether the reliability of the link between the gene and the expression of the characteristic is satisfied in order to include a method in the Test Guidelines, as set out in document TWP/3/7, paragraph 94.

72. The TWF noted that matters concerning characteristic-specific markers with incomplete information on state of expression are considered in document TWP/3/12.

Session to facilitate cooperation in relation to the use of molecular techniques

73. The TWF noted the results of the coordination session at the seventeenth session of the BMT, as set out in document TWP/3/7, paragraphs 62 to 71.

74. The TWF noted that all TWPs had been invited to form discussion groups for the main crops at each TWP to allow participants to exchange information on their work on biochemical and molecular techniques and explore areas for cooperation, in order to build on the BMT outcomes and feed into the future work of the BMT, as set out in document TWP/3/7, paragraph 97.

75. Following the subgroup discussions, the following information was provided by TWF participants:

Summary of crop and authorities currently using biochemical and molecular techniques in the fruit sector

Czech Republic	Grapevine
France	Apple, Peach, Pear, Sweet Cherry, Apricot, Japanese Plum
Germany	Pear, Apple, Strawberry, Sweet Cherry, Sour Cherry
Republic of Korea	Apple, , Grapevine, Peach, Pear, Strawberry
Morocco	Citrus, Date Palm
Italy	Grapevine
Hungary	Grapevine, Peach, Cherry, Sour Cherry, Apricot, Plum,
Spain	Almond, Apricot, Avocado, Banana, Cherimoya, Citrus, Fig tree Grapevine, Hazelnut Mango, Peach, Pear, Pineapple, Strawberry, Sweet Cherry, Walnut,
Japan	Apple, Citrus, Pineapple, Japanese Pear, Sweet Cherry, Strawberry, Grapevine

Summary of current use of biochemical and molecular techniques in the fruit sector

Use:
Management and description of variety collections
Genetic distance and molecular profiling
Uniformity assessment
Research purposes
Enforcement
Identification of varieties for certification scheme purposes.
Techniques:
SSR
SNPs

Summary of possible areas of cooperation for the use of biochemical and molecular techniques in the fruit sector

Develop and share common databases (identifying a leading country and coordinator)
Sharing techniques
Harmonize projects/markers/methods/procedures
Exchange of knowledge and techniques
Encourage crop experts to attend BMT meetings

Future program

76. The TWF noted that the TC had agreed the items for discussion on Wednesday, October 16, 2019, to facilitate discussion and cooperation between the TWC and BMT, as set out in document TWP/3/7, paragraph 101.

Cooperation in examination

77. The TWF considered document TWP/3/14.

78. The TWF noted the results of the survey of the current situation of members of the Union with regard to cooperation in examination, as set out in the Annex to document TWP/3/14.

79. The TWF noted that the Office of the Union would invite the Council representatives to identify contact the persons for international cooperation in DUS examination and that the information received would be made available on the UPOV website.

80. The TWF noted that the topic of international cooperation in DUS examination would be presented as an introduction to the agenda item "Cooperation in examination" during the normal program for the TWPs to explain the existing possibilities for cooperation between UPOV members.

81. The TWF formed discussion groups to discuss the technical concerns that prevent cooperation in DUS examination and how to overcome the technical concerns raised.

82. Following the subgroup discussions, the following information was provided by TWF participants:

Summary of current limits and obstacles for cooperation in DUS examination for fruit crops

Difficulty to exchange plant material between some countries (e.g. phytosanitary measures)
Different environmental conditions (need to be similar to take over reports)
No taking-over of tests in the case of breeder -testing
Need to establish agreement (bilateral agreements or case by case agreements)
International understanding of varieties of common knowledge
Easier to establish cooperation for major species, more difficult for minor species
Language barriers
Identification of contact persons
National Test Guidelines – lack of harmonization if no UPOV Test Guidelines
Reference varieties (different national rules on which ones are used)
Regulations in place in the country to perform all DUS examinations
Wish from breeders to use (or not) existing DUS reports
Appropriate reference collection/ set of example varieties

Summary of possible areas for improvement of cooperation in DUS examination for fruit crops

Ensure the quality of the report produced
Facilitated administrative process for obtaining test reports
Encourage participation in UPOV sessions (e.g. TWPs)
Improve communication between countries (contact persons, specialist meetings, ring tests)
Wider access to information (e.g. provide more technical information in GENIE, displayed in a more user-friendly manner)
Enhance transparency in contact lists (include crop experts)
Create model/ template for standard cooperation agreement in relevant different languages (available on the UPOV Website)
Encourage the use of TGs to guarantee harmonization (differences between authorities)
Ensure follow-up in any DUS reports request

Matters to be resolved concerning Test Guidelines put forward for adoption by the Technical Committee

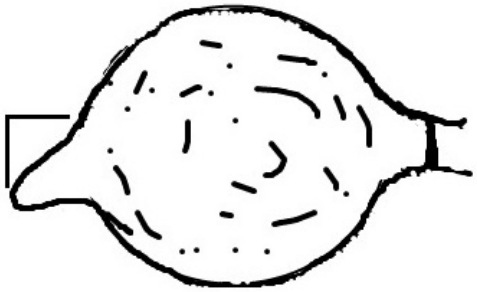
**Macadamia*

83. The TWF considered document TWF/50/6, and agreed the following:

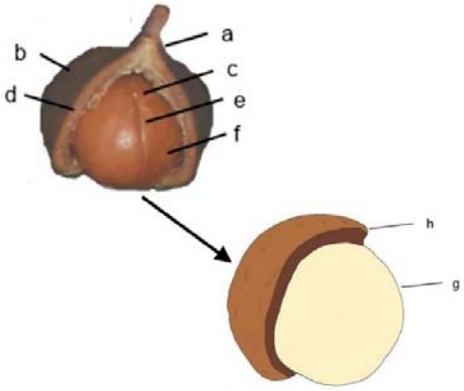
1.	- to delete "and their hybrids" - to add GN3 from TGP/7: "Guidance on the use of Test Guidelines for interspecific hybrids that are not explicitly covered by Test Guidelines is provided in document TGP/13 'Guidance for New Types and Species'". *Leading Expert: agreed* *TWF: agreed*

<table>
<tr><td>3.1.2</td><td>to be deleted
Leading Expert: agreed
TWF: agreed</td></tr>
<tr><td>4.2.2</td><td>delete “varieties” (duplication)
Leading Expert: agreed
TWF: agreed</td></tr>
<tr><td>#T.o.C</td><td>- to check coherence of example varieties (e.g. A16 = Hidden Valley A16, A4 = Hidden Valley A4, A38 = Hidden Valley A38, 660 = Keaau)
Leading Expert: see table of corrections to example varieties below:
<table>
<tr><td>Replace</td><td>With</td><td>Comment</td></tr>
<tr><td>A16</td><td>Hidden Valley A16</td><td>correct PBR denomination</td></tr>
<tr><td>A4</td><td>Hidden Valley A4</td><td>correct PBR denomination</td></tr>
<tr><td>A38</td><td>Hidden Valley A38</td><td>correct PBR denomination</td></tr>
<tr><td></td><td></td><td></td></tr>
<tr><td>246</td><td>Keauhou (HAES 246)</td><td></td></tr>
<tr><td>333</td><td>Ikaika (HAES 333)</td><td></td></tr>
<tr><td>660</td><td>Keaau (HAES 660)</td><td></td></tr>
<tr><td>738</td><td>HAES 783</td><td>‘738’ in proj. 5 is a transcription error. It should be ‘783’</td></tr>
<tr><td>849</td><td>HAES 849</td><td></td></tr>
<tr><td>816</td><td>HAES 816</td><td></td></tr>
<tr><td>H2</td><td>H2 Hinde</td><td></td></tr>
</table>
HAES = Hawaii Agricultural Experiment Station
Number in brackets is the HAES reference. When the variety is named the HAES number is often also used in the literature.
TWF: agreed</td></tr>
<tr><td>#Char. 3</td><td>- state 2 to read “right-angle”
Leading Expert: agreed
TWF: agreed
- to add example variety for state 3
Leading Expert: to add example variety “A203” for state 3
TWF: agreed</td></tr>
<tr><td>#Char. 5</td><td>to add the following example varieties:
“MCT1” for state “smooth”, “Hidden Valley A16” for state “medium”, “MiniMaca” for state “rough”
Leading Expert: to be agreed by TWF
TWF: agreed</td></tr>
<tr><td>Char. 9</td><td>- to read “Leaf blade: …”
- to be moved after Characteristic 18
TWF: agreed</td></tr>
<tr><td>#Char. 12</td><td>- to review order of states to have states ovate (1), lanceolate (2), elliptic (3), oblong (4), obovate (5), oblanceolate (6)
Leading Expert: agreed
TWF: agreed
- to add (a)
Leading Expert: agreed
TWF: agreed
- to add example varieties for states 1 to 3
Leading Expert: I propose deleting ovate and lanceolate as no existing varieties could be identified. Although some literature refers to lanceolate and ovate leaves these do not seem to be present in known varieties.
For “oblong” I propose the example variety “HAES 781”.
TWF: agreed</td></tr>
<tr><td>#Char. 13</td><td>to add the following example varieties:
“H2 Hinde” for state “none”, “HAES 800” for state “apiculate”, “A268” for state “acuminate”, “Hidden Valley A38” for state “mucronate”
Leading Expert: to be agreed by TWF
TWF: agreed</td></tr>
</table>

# Indicates technical issues to be resolved

<table>
<tr><td>#Chars. 14, 15</td><td>to be deleted
Leading Expert: agreed. Char. 12 “Leaf blade: shape” inherently includes apex and base so Chars. 14 and 15 are superfluous
TWF: agreed</td></tr>
<tr><td>Char. 19</td><td>- to be moved after Char. “Petiole: length”
- to read “Young leaf: color”
Leading Expert: agreed
TWF: agreed</td></tr>
<tr><td>Char. 20</td><td>to read “Leaf blade: intensity of green color” and move “on upper side” to explanation in Chapter 8.2
Leading Expert: agreed
TWF: agreed</td></tr>
<tr><td>Char. 24</td><td>to be indicated (b) instead of (a)
Leading Expert: agreed
TWF: agreed</td></tr>
<tr><td>#Char. 25</td><td>to delete (b) and add illustration of apical point and possibly explanation
Provided by Leading Expert:
“The apical point is the protrusion of the husk opposite to the stalk end.”
 
TWF: agreed</td></tr>
<tr><td>#Char. 26</td><td>to read as follows:
<table>
<tr><td>26.</td><td>QN</td><td>VG</td><td></td><td>(b)</td><td></td><td></td><td></td></tr>
<tr><td></td><td>Husk: thickness of pericarp</td><td>Cosse : épaisseur du péricarpe</td><td>Hülle: Dicke des Perikarps</td><td>Vaina: grosor del pericarpio</td><td></td><td></td></tr>
<tr><td></td><td>thin</td><td>mince</td><td>dünn</td><td>delgado</td><td>Kabere</td><td>1</td></tr>
<tr><td></td><td>medium</td><td>moyen</td><td>mittel</td><td>medio</td><td>EMB-1, KMB-3, KRG-15</td><td>3</td></tr>
<tr><td></td><td>thick</td><td>épais</td><td>dick</td><td>grueso</td><td>MRG-20, MRG-25</td><td>5</td></tr>
</table>
Leading Expert: agreed
TWF: agreed</td></tr>
<tr><td>#Char. 27</td><td>to read “Seed: size”
Leading Expert: agreed. The reference to “shell” is not clear as it can be confused with the shell characteristics (Chars. 29, 30 and 31). It is better to use “seed”. Previously the term “nut” was used however macadamia is not a true nut.
TWF: agreed</td></tr>
<tr><td>#Char. 28</td><td>to read “Seed: shape”
Leading Expert: agreed. See comment for Char. 27
TWF: agreed</td></tr>
</table>

# Indicates technical issues to be resolved

#Char. 29	to use a 3 or 5-notes scale to have the mid-point in the middle of the scale *Leading Expert: I propose a 5 note scale:* *smooth (1)* *slightly rough (2)* *moderately rough (3)* *moderately rough to very rough (4)* *very rough (5)* *The example varieties do not change and there are no example varieties for note 4.* *TWF: agreed*
#Char. 33	- to add example varieties "A16" for state 1 and "A38" for state 2 - to add example varieties for states 3 to 5 *Leading Expert: I propose to delete this characteristic* *TWF: agreed*
Char. 34	to read "Seed: micropyle" *Leading Expert: agreed* *TWF: agreed*
#8.1 (b)	- "f" to read "seed" instead of "shell" - to improve current illustration of kernel and add indication of shell to new illustration *Provided by Leading Expert*  a: neck b: husk c: micropyle d: pericarp e: suture f: seed g: kernel h: shell *TWF: agreed*
Ad. 12	to read "relative width" and remove information on ratio in brackets in the grid *Leading Expert: agreed* *TWF: agreed*
Ad. 34	to read "The micropyle is the white spot on the seed that allows…." *Leading Expert: agreed* *TWF: agreed*
8.3	to be moved to the beginning of Chapter 8.1 as standalone paragraph *Leading Expert: agreed* *TWF: agreed*
TQ 5	to add Characteristic 18 *Leading Expert: agreed* *TWF: agreed*

Black Walnut

84. The TWF considered document TG/JUGLANS(proj.5) and TWF/50/5, presented by Ms. Nuria Urquía Fernández (Spain) and Ms. Neus Aletà Soler (Spain) and agreed the following:

cover page	to correct German wording: Kalifornische Walnuss
2.3	to read "5 trees (one-year-old grafts) and 5 budsticks valid to graft 10 trees"
Char. 6	growth stage to be indicated as C_f
Char. 10	to read "Female flower: attitude of stigma"
8.1 (a)	to read "...should be made on mature trees in the dormant season."

8.1 (c)	to delete "…minimum 25…"
8.1 (e)	to be deleted
Chars. 17, 18	to delete (+)

Discussion on draft Test Guidelines

*Apple (fruit varieties) (Revision) (*Malus domestica *Borkh.)*

85. The subgroup discussed document TG/14/10(proj.2), presented by Mr. Erik Schulte (Germany). The subgroup agreed the following:

3.1.3	to check whether to keep or to delete (will this be added as ASW to TGP/7?)
3.3.3	to be deleted
4.2.3	to read "For the assessment of uniformity of varieties resulting from crossing, a population standard…."
4.2.4	to read "For the assessment of uniformity of varieties resulting from mutation, a population standard…."
Table of Chars.	- to check use of example varieties "Royal Gala" and "Tenroy" and their synonyms - to delete MS throughout table of Characteristics - example variety "Prem A 153" to read "PremA153" - to check growth stages - to add example varieties - to check whether to introduce characteristics for "Fruit: sweetness of flesh" and "Fruit: acidity of flesh" after characteristic 51, including explanations on methodology on how to observe
Char. 1	to delete MG
Chars. 4, 6, 7	to be deleted
Char. 8	to reduce scale to 3 notes
Char. 14	- to have states "absent or weak" (1), "medium" (2), "strong" (3) – to check whether to be deleted
Char. 15	- to move "(distal half)" to explanation in Chapter 8.2 - to check constituency between char. 15 and Ad. 15 (5 states in Ad.15)
Char. 16	to be deleted
Char. 17	to check whether to be deleted
Char. 18	- state 2 and 3 are reversed in Ad.18 (to be checked) - to check whether both states "strongly concave" and "slightly concave" are needed or whether one state "concave" is sufficient
Char. 19	to have states from "very short" to "very long"
Char. 20	to have states "very low" to "very high" (ratio)
Char. 21	- to have states from "very small" to "very large" - to check whether to reduce scale
Char. 22	to check whether to be deleted
Char. 23	to reduce scale to 5 notes
Char. 25	- to read "Flower: intensity of…" - to check whether to reduce scale - to have states from "absent to very light" to "very dark"
Char. 27	to revise example varieties in order show that there is no correlation with Char. 38
Char. 30	to reorder states (to have "very small" as state 1) and example varieties accordingly
Char. 33	to have notes 1, 2, 3
Char. 36	to be moved after Char. 38
Char. 37	to move "(with bloom removed)" as explanation to Chapter 8.2
Char. 40	- to reduce scale to 3 notes - to add example varieties

Char. 50	to read “Fruit: calyx eye”
Chars. 52, 53, 54	to check and clarify what is covered by these characteristics and whether they need to be improved/re-worded
Chars. 56, 57	to add explanation
8.1 (c)	to delete “vigorous”
8.1 (f)	explanation is identical as growth stage; to keep one or the other
Ad. 15	- to be improved to correspond to Characteristic 15
Ad. 17	to read: “Observations should be made…”
Ad. 18	states 2 and 3 reversed in Char. 18
Ad. 28	to be improved
Ad. 31	to review order of states in the grid (see TGP/14)
Ad. 45	to delete “See Ad. 48”
Ad. 47	to update number of characteristics next to illustration
Ad. 53	to update according to changes to Characteristics 52, 53, 54
8.3	- to delete duplication of “8.3” - synonyms of example varieties: to add header to read “Other names of example varieties” and to become Chapter 8.4
9.	to be updated
TQ 4., 6.	to be completed

**Apricot (*Prunus armeniaca *L.) (Revision)*

86. The subgroup discussed document TG/70/5(proj.3), presented by Mr. Chris Barnaby (New Zealand), on behalf of the Leading Expert, Mr. Hennie Venter (South Africa), and agreed the following:

1.	to delete “Add comment, …”
2.3	to indicate number of dormant shoots
3.3.2	to be deleted
3.4.1	to read “Varieties resulting from crossing: ….”
4.2.3	to have two separate paragraphs for varieties resulting from crossing and mutation
Table of Chars.	- to check whether to show full scale for QN characteristics - to check example varieties
Char. 1	- to delete MG - to check whether to remove from grouping characteristics
Char. 2	to check whether to remove from grouping characteristics
Char. 3	to check whether “Roxana” and “Roxanne” are two different varieties
Char. 5	to be moved after Char. 7 (observed after Chars. 6 and 7)
Char. 7	to check whether to add illustrations (see e.g. European Plum)
Char. 15	to add to Chapter 5.3 as grouping characteristic and to TQ 5
Char. 16	state “strong” to have note 4 and to add state 5 “very strong”
Char. 17	state 2 to read “flat or weakly concave”
Char. 21	to add state 1 “absent or very weak”
Char. 27	- to add (*) - to add to Chapter 5.3 as grouping characteristic and to TQ 5 - to check whether to add example variety for state 2 - to check whether state 3 to read “pink” - to delete state 4 “dark pink”
Chars. 32, 33, 34	to delete MS
Char. 40	to read “Fruit: shape of apex in lateral view”
Char. 46	to add definition of “ground color” (see document TGP/14)

Char. 47	- to add definition of “over color” (see document TGP/14) - to be moved after Char. 49 (see order of color characteristics in TGP/14)
Char. 57	- to add (*) - to add to Chapter 5.3 as grouping characteristic and to TQ 5
8.1	all explanations to read “Observations should be made…” to and delete indication of organ at the beginning of the explanations
8.1 (d)	to delete second paragraph
Ad. 3	to read “Observations should relate to…”
Ad. 5	- to read “Observations should be made…” - to specify “rapid growth”
Ad. 25	illustrations for states 1 and 2 not clear; to be improved or replace with drawings (see e.g. TG Apple)
Ad. 27	to delete “on lower side”
Ad. 31	to correct illustration for “elliptic”
Ad. 41	to improve illustrations to clarify difference between Chars. 40 and 41
TQ 5.6, 5.8	to add even states of expression

*Argania (*Argania spinosa *(L.) Skeels)*

87. The subgroup discussed document TG/ARGAN(proj.4), presented by Ms. Ibtihaj Belmehdi (Morocco), and agreed the following:

Cover page	to check whether to delete synonym of main botanical name (see GRIN)
2.3	to reduce quantity of plant material from 8 to 5
3.4.1	to reduce quantity of trees from 8 to 5
4.1.4	to reduce number of plants or parts of plants from 8 to 5
4.2.3	to reduce sample size from 8 to 5
Table of Chars.	to add example varieties
Char. 8	- to read “Leaf blade: intensity of green color…” - to have states light (1), medium (2), dark (3)
Char. 9	- to add illustration - to have states narrow elliptic (1), broad elliptic (2), narrow obovate (3), broad obovate (4)
Char. 12	to have notes 1, 2, 3
Char. 13	to have notes 1, 2, 3
Char. 14	to have notes 1, 3, 5
Char. 15	to have notes 1, 2, 3
Char. 16	- to be indicated as QL - to have states in leaf axils (1), on branches (2), in leaf axils and on branches (3)
Char. 17	- to read “Petal: color” - to add (b)
Char. 18	- to be indicated as VG - to have states light brown (1), medium brown (2), dark brown (3), black (4)
Char. 19	to have states ovate (1), elliptic (2), circular (3), fusiform (4)
Char. 20	- to check whether to be indicated as VG/MG - to have notes 1, 3, 5
Char. 21	- to check whether to be indicated as VG/MG - to have notes 1, 3, 5
Char. 22	to have notes 1, 3, 5
Char. 23	- to be indicated as MG - to have notes 1, 3, 5

Char. 24	- to check whether to add more states - to have states rounded (1), broad elliptic (2), narrow elliptic (3)
Char. 25	- to delete VS - to have notes 1, 3, 5
Char. 26	- to be indicated as MS - to have notes 1, 3, 5
Char. 27	to have notes 1, 3, 5
Char. 29	- to read “Stone: number of almond lodges” - to add an illustration
Char. 30	to add an explanation
Char. 31	- to be indicated as MS - to have notes 1, 3, 5
Char. 32	- to be indicated as MS - to have notes 1, 3, 5
Char. 33	- to be indicated as MS - to have note 1, 3, 5
Char. 34	to have note 1, 3, 5
Char. 35	to add an illustration
Char. 38	- to move percentage indications to explanation in 8.2 - to add explanation - to have notes 1, 2, 3
Char. 40	to add explanation
Char. 41	- to read “Plant: self-incompatibility” - to have states absent (1), present (9) - to be indicated as QL - to add explanation “A variety is self-incompatible when the fertile pollen of its own flower or of other flowers of the same variety is not able to fertilize the ovary.”
8.1 (d)	to read “…should be made when 80% of the fruit on the tree are colored.”
Ad. 2	to check whether to change illustration for state 3 or to use drawing from TGP/14
Ad. 11	to keep one picture for each state
Ad. 19	to update illustration for state 4
Ad. 24	to improve illustration (same perspective, all stones in lateral or ventral view)
9.	to be completed

*Grapevine (*Vitis *L.) (Revision)*

88. The subgroup discussed document TG/50/10(proj.2), presented by Mr. Roberto Carraro (Italy), on behalf of the Leading Expert, Mr. Luca Aggio (Italy), and agreed the following:

2.2	to delete (c) and (d)
2.3	to delete last sentence “The competent Authority…”
3.1.3	to read “In particular, it is essential that the plants, excluding rootstock varieties producing no fruits, …”
4.1.4	to reduce number of plants or parts of plants to be examined for distinctness to 3 plants/parts of plants
6.5	- growth stage key reference to read 8.3 - to clarify for which characteristics the OIV code should be indicated - 9 to read “B-“
Table of Chars.	to check and harmonize example varieties and reduce number of varieties in the Test Guidelines
Char. 4	to add example variety “Kyoho” to state 7

Char. 6	- state 4 to read “light brownish red” - state 5 to read “medium brownish red” - state 6 to read “dark brownish red”
Char. 7	to read “Young leaf: density of prostrate hairs between main veins on lower side of blade”
Char. 8	to read “Young leaf: density of erect hairs on main veins”
Char. 9	growth stage to be indicated as “57-69”
Char. 13	to be indicated as PQ
Char. 19	to add example variety “Kyoho” to state 1
Char. 20	to be deleted
Char. 23	to read “Only varieties with Mature leaf: number of lobes: more than one: Mature leaf: arrangement of lobes of upper lateral sinuses”
Char. 27	to replace example variety “Aspiran” with “ Aramon noir” in state 4
Char. 32, 33	to be indicated as MG/VG
Char. 34	to add example variety “Kyoho” to state 3
Char. 36	OIV code to be indicated as O-223
Char. 37	to check whether to add more shapes
Char. 38	to check whether to read “Only varieties with Berry: shape: [add shape]”
Char. 39	- to check wording of states and example varieties - to check whether state 2 to read “yellow” - to check whether state 3 to read “pink” - to check whether state 4 to read “red” - to add new state of expression “green” as state 1 - OIV code to be indicated as O-225
Char. 42	to read as in current adopted TG/50/9
Char. 43	- to check whether to read “Berry: seeds” or “Berry: presence of seeds” - to check whether to add new characteristic number or size of seeds (applicable for table grapes only)
Char. 44	- to read “Woody shoot: color” - to correct state 5 to read “greyish brown”

*Mulberry (*Morus *L.)*

89. The subgroup discussed document TG/MORUS(proj.1), presented by Mr. Yosuke Abe (Japan), and agreed the following:

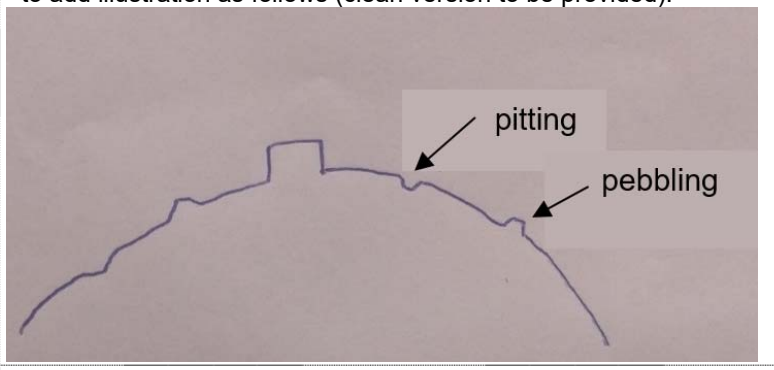
General comments	to coordinate with TWO whether they wish to contribute to the revision
2.3	- to read 5 plants for varieties resulting from crossing - to add “…10 plants for varieties from mutation” - to check whether to include rootstocks
4.2.3	to add information for mutant varieties
Table of Chars.	- to present all possible states of expression for QN characteristics with abbreviated scale - all characteristics with “branch” to be replaced with “shoot” - to check whether to add new Char. (after Char. 17): “Leaf blade: symmetry” with states “absent”, “present” or as QN characteristic - to check whether to add new Char. (after Char. 19): “Leaf blade: ratio length/width” - to replace “fruit” by “infructescence” - to check whether to add new Char. (before Char. 40) “Fruit: ration length/width”
Char. 1	to be deleted and information on ploidy to be requested in the TQ
Char. 2	to reduce scale to 3 notes
Char. 3	to read spreading (3) drooping (4)

Char. 4	- to reduce scale to 3 notes - to add explanation
Char. 5	to add illustrations
Chars. 6, 13	to correct spelling of “grey”
Char. 7	- to reduce scale to 3 notes - to add illustrations
Chars. 8, 10	- to check whether to be combined - to check method of observation
Char. 9	to be deleted
Char. 12	to reduce scale to 3 notes
Char. 14	to reduce scale to 3 notes
Char. 15	to check whether to be deleted
Char. 16	- to add illustration - to add (*) (grouping characteristic)
Char. 17	to add illustrations
Chars. 18, 19	- to check whether to add example varieties or to delete VG - to check whether to reduce scale
Char. 22	- to read: “leaf blade: shape” - to add illustrations - to check whether to add more state of expression
Char. 23	to check whether to split in two characteristics (shape of base and arrangement of basal lobes with states “free”, “touching”, “overlapping”) or state 5 to read “overlapping”
Char. 24	to be deleted
Char. 25	to have states “absent or very shallow” (1)
Char. 26	to read: “Leaf blade: incisions of margin”
Char. 27	- to check whether to read “Leaf blade: texture” - to add state “medium” as state 2, rough as state 3
Char. 28	- to read “Leaf blade: …” - to check whether to be indicated as QN with states: absent to weak (1), medium (2), strong (3)
Char. 30	to combine states 1 and 2 to read “absent or very weak”
Char. 32	- to read: “Flower bud: color” - to check range of colors
Char. 33	- to read: “Inflorescence: number of …” - to reduce scale to 3 notes
Char. 34	- to add (*) (grouping characteristic) - to delete states 2 and 4 and have notes 1, 2, 3
Char. 35	to be deleted
Char. 36	to be deleted
Chars. 37, 38	- to reduce scale to 3 notes - to check example varieties
Char. 39	- to have states from “low” to “high” - to delete VG - to reduce scale to 3 notes - to check example varieties
Char. 40	to check wording of states 3 and 4
Char. 41	to be moved after characteristic 35
Char. 42	to move example variety “Kozaemon” to state 4
Chars. 44, 45	to delete MS
Char. 46	to be deleted
Char. 47	- to be indicated as MG/VG - to reduce scale to 5 notes

Char. 48	- to be indicated as MG/VG - to reduce scale to 5 notes
Char. 49	- to read: “Time of fruit ripening” - to be indicated as MG/VG
Chars. 50, 51	to be deleted
Ad. 26	to check illustrations for state 4 and 6
TQ 1	to add 1.3 for indication of species
TQ 4.2	to be completed
TQ 6	to be completed

*Oranges (*Citrus *L. - Group 2)*

90. The subgroup discussed documents TG/202/1 Rev. and TWF/50/7, presented by Ms. Nuria Urquía Fernández (Spain) and Mr. Francisco José Fabado Guillem (Spain), and agreed the following:

Char. 26	- state 1 to read “absent or low”, example varieties: Washington Navel (SWO) Valencia Late (SWO) - state 2 to read “medium”, example variety: Olinda (SWO) - state 3 “high”, example variety: Comuna (SWO)
Ad. 26	first paragraph to read “…pollination”
Char. 56	to read “Fruit surface: presence of pitting and pebbling” to adapt char. 57 accordingly by deleting “on oil glands”
Ad. 56	- to read “Observations should be made on the proximal half of the fruit “ - to add illustration as follows (clean version to be provided): 
Char. 64	to be kept as in current adopted version and remove from the partial revision
Char. 65 (New)	to read “Only varieties with Fruit bicolored segments: present: Fruit: distribution of red coloration” and to read as changes proposed to Char. 64 in document TWF/50/7
Ad. 83 (previously 84)	to read “Open pollination means natural pollination between trees of any variety.”

*Pistachio (*Pistacia *L.)*

91. The subgroup discussed document TG/PISTA(proj.3), presented by Ms. Urszula Braun-Mlodecka (European Union), and agreed the following:

Cover page	to correct Spanish from “Alfóncigo” to “Alfónsigo” to check coverage of the Test Guidelines “*Pistacia* L.” or “*Pistacia vera* L.”?
3.1.1, 3.1.2	to be deleted
3.1.3	- to replace “blossoming” by “flowering” - for rootstocks = 1 growing cycle if *Pistacia* L.
4.1.6	to be deleted

Table of Chars.	- to indicate which example varieties are female (f) or male (m) - to add present full scales for QN characteristics - to check whether to add more example varieties
Char. 2	to have states 1 “weak”, 2 “medium” 3 “strong”
Char. 8	to check whether to delete VG
Chars. 13, 35, 36, 37	to add (*) (grouping characteristic)
Char. 20	to add standard definition of ground color (see TGP/14)
Char. 21	to add standard definition of over color (see TGP/14)
Char. 33	to check whether to increase scale
Char.37	- to check if example variety “Larnaka” could be added to state 1 - to check example varieties for states 4 and 5
8.1	all explanations to read “Observations should be made…” to and delete indication of organ at the beginning of the explanations
8.1 (e)	“c” to read “lateral leaflet”
Ad. 36	to read “flowers” instead of “flower buds”
9.	to check whether to be completed
TQ 1	to check whether to add 1.3 for indication of species
TQ 4.1, 4.2	to be completed
TQ 7	to add request for main use (fruit, pollinizer rootstock, other)

*Pummelo (Grapefruit and) (*Citrus *L. - Group 4)*

92. The subgroup discussed documents TG/204/1 Rev. and TWF/50/8, presented by Ms. Nuria Urquía Fernández (Spain) and Mr. Francisco José Fabado Guillem (Spain), and agreed the following:

Char. 30	- state 1 to read “absent or low”, example varieties: Gregal (PUM), JR 13 (GRA); Star ruby (GRA) - state 2 to read “medium”, example variety: none - state 3 to read “high”, example varieties: Marsh (GRA), Duncan (GRA)
Ad. 26	first paragraph to read “…pollination”
Char. 63	state 1 to read “white”
Char. 65	to be kept as in current adopted version and remove from the partial revision
Char. 66 (New)	to read “Only varieties with Fruit bicolored segments: present: Fruit: distribution of red coloration” and to read as changes proposed to Char. 65 in document TWF/50/8
Char. 66	state 7 to read “orange”
Ad. 81 (previously 82)	to read “Open pollination means natural pollination between trees of any variety.”

*Strawberry (*Fragaria *L.) (Revision)*

93. The subgroup discussed document TG/22/11(proj.1), presented by Mr. Erik Schulte (Germany), and agreed the following:

2.3	to check whether to reduce number of plants to be submitted
3.1.4	to be reviewed
3.3.2	to be deleted
3.4, 4.1.4	to be reviewed
4.2.2	to add seed-propagated varieties
Table of Chars.	- to review and add example varieties - to check whether to add new Char. “firmness of flesh”

Char. 4	to reword states of expression to be more precise and avoid confusion with Char. 2
Char. 6	to check whether to replace “large” by “strong” (intensity or extent?)
Char. 8	to read “Leaf: color …”
Char. 11	to read “Terminal leaflet: ratio length/width” and to have states from “low” to “high”
Char. 14	- to add explanation or illustration - to read “shallow” instead of “narrow”
Char. 15	to add illustration
Char. 17	- to check whether to reword state 1 “adpressed”, state 2 “upwards” - to check whether to add fifth state of expression
Char. 18	to check whether to replace “stalk leaflets” with more appropriate term and reword accordingly
Char. 20	to be deleted
Char. 21	to be deleted
Char. 27	to read “Petal: ratio length/width” and to have states from “low” to “high”
Char. 29	to read “Fruit: ratio length/width” and to have states from “low” to “high”
Char. 34	- “(excluding neck)” to be moved to 8.2 - state 4 to read “retuse”
Char. 35	to add state “pink” with example variety “Mannyeonseol”
Char. 36	to be deleted
Char. 37	to be deleted
Char. 39	to reduce scale to 3 states below surface (1), level with surface (2), above surface (3)
Char. 47	to be deleted
Char. 48, 49	to delete (*)
Char. 50	to be deleted and request this information in TQ 7.3 and use wording as in current adopted version of TG Strawberry or only use “absent” and “present”
Ad. 31	to check whether to use a grid or explain how the states are distinguished
Ad. 45	to add wording “Observations should be made excluding the core.”
TQ 4.2, 6	to be completed

*Sweet Cherry (*Prunus avium *L.) (Revision)*

94. The subgroup discussed document TG/35/8(proj.1), presented by Ms. Carole Dirwimmer (France), and agreed the following:

5.3	to add grouping characteristics
Table of Chars.	- to add more (*) - to check and correct methods of observation - to add full range of states of expression for QN characteristics - to add growth stages (BBCH)
Char. 3	to check correlation with Char. 1 and whether to delete one or the other
Chars. 4, 5	- to move “(during rapid growth)” to 8.2 - to move after Char. 8
Char. 5	to reduce scale to 5 notes
Char. 6	- to have states: 1 “standard” and 2 “compact” - to read “One-year-old shoot: Tree type”
Char. 7	to check whether to reduce scale to 5 notes
Char. 8	- to move “(at midlength)” to 8.2 - to check whether to be deleted (correlation with “tree: type…”)
Char. 9	- to remove underlining - to read: “Flower bud: shape of apex”
Char. 10	to be indicated as QN

Char. 13	to have states from “low” to “high” (ratio)
Char. 14	to check whether reduce scale to 5 notes
Char. 16	to have states from “low” to “high” (ratio)
Char. 17	to be indicated as VG
Char. 19	to check whether to have 3 states of expression “none”, “one or two”, “more than two” and to be indicated as QL
Char. 20	to indicate MG/VG
Char. 23	- to check whether to read: “Stamen: position compared to the top of the petals” - to add explanation on when to be observed
Char. 24	to add explanation on when to be observed
Char. 25	- to indicate MG/VG - to add explanation on what size refers to - to check example varieties
Char. 26	to check whether to add more characteristics on fruit shape (e.g. lateral and ventral view)
Char. 28	- to read: ”Fruit: conspicuousness of suture” - states of expression “weak”, “medium”, “strong”
Char. 30	to reduce scale to 5 notes
Char. 31	to be indicated as QN and have three states of expression
Char. 32	to delete state 2
Char. 33	- to delete “Only yellow with blush varieties:” - state 1 to read “absent or very small”
Char. 37	to replace “cream” with “whitish yellow”
Char. 39	to have notes 3, 5, 7, 9
Char. 40	to add time of observation
Char. 42	to reduce scale to 5 notes
Char. 44	- to check current states of expression and whether to add more states - state1 to read “medium elliptic”
Char. 45	to have states from “low” to “high” (ratio)
8., 9., TQ	to be completed

Variety denominations

95. The TWF considered document TWP/3/6.

Possible revision of document UPOV/INF/12 “Explanatory Notes on Variety Denominations under the UPOV Convention”

96. The TWF noted developments concerning a possible revision of document UPOV/INF/12 “Explanatory Notes on Variety Denominations under the UPOV Convention”, as set out in document TWP/3/6, paragraphs 6 to 8.

97. The TWF noted that the CAJ, at its seventy-fifth session, had agreed to request the TC to consider proposals received by the WG-DEN to revise the list of classes in document UPOV/INF/12/5, as set out in document TWP/3/6, paragraph 9.

98. The TWF noted the proposals to revise the list of classes 203 and 205 in document UPOV/INF/12/5, as set out in document TWP/3/6, paragraph 9, in anticipation of consideration of this matter by the Technical Committee.

Revision of the ninth edition of the ICNCP

99. The TWF noted that the CAJ had agreed that the Office of the Union contribute to the revision of the ninth edition of the ICNCP on the basis of document UPOV/INF/12/5 and the work of the WG DEN, as set out in document TWP/3/6, paragraph 14.

Possible development of a UPOV similarity search tool for variety denomination purposes

100. The TWF noted that the WG-DEN, at its fifth meeting, had agreed that the Office of the Union should restart its work to explore possibilities to improve the UPOV Denomination Similarity Search Tool in conjunction with the Community Plant Variety Office of the European Union (CPVO).

Non-acceptable terms

101. The TWF noted that the WG-DEN, at its fifth meeting, had agreed to propose not to pursue further the matter in relation to the item “Non-acceptable terms”.

Date and program of the next meeting

102. The TWF noted that the WG-DEN, at its sixth meeting, to be held in Geneva, in the evening of October 29, 2019, had agreed to discuss the revision of document UPOV/INF/12/5 “Explanatory Notes on Variety Denominations under the UPOV Convention.

Information and databases

(a) UPOV information databases

103. The TWF considered documents TWP/3/4 and TWP/3/4 Add..

UPOV Code System

UPOV code developments

104. The TWF noted that 242 new UPOV codes were created in 2018 and a total of 8,844 UPOV codes are included in the GENIE database, as set out in document TWP/3/4, paragraph 9.

UPOV code amendments considered by the TC at its fifty-fourth session

105. The TWF noted that the TC, at its fifty-fourth session, had agreed not to delete the UPOV Codes for sweet corn and popcorn and for certain subspecies of *Brassica oleracea*, therefore creating exceptions to the “Guide to the UPOV Code System”, as set out in document TWP/3/4, paragraphs 15 and 32.

106. The TWF noted that amendments to the “Guide to the UPOV Code System” would be considered by the TC, at its fifty-fifth session, to be held in Geneva on October 28 and 29, 2019, as set out in document TWP/3/4, paragraph 16.

107. The TWF noted that the TC had agreed to amend the UPOV codes for subspecies in the *Mucuna, Epichloe* and *Neotyphodium* genera and to correct the UPOV codes for *Sesbania sesban*.

108. The TWF noted that the Office of the Union had issued Circular E-18/208 to the designated persons of the members of the Union in the TC, the CAJ, TWPs and contributors to PLUTO, announcing the amendments to UPOV codes and requesting contributors to PLUTO to use the amended UPOV codes from February 22, 2019, as set out in document TWP/3/4, paragraph 21.

109. The TWF noted that the TC agreed not to delete the UPOV Codes for *Brassica oleracea*, therefore creating an exception to the “Guide to the UPOV Code System”, as set out in document TWP/3/4, paragraph 32.

110. The TWF noted that amendments to the “Guide to the UPOV Code System” would be considered by the TC, at its fifty-fifth session, to be held in Geneva on October 28 and 29, 2019, as set out in document TWP/3/4, paragraph 33.

TWP checking

111. The TWF noted the invitation to check the amendments to UPOV codes, the new UPOV codes or new information added for existing UPOV codes, and the UPOV codes used in the PLUTO database for the first time, which are provided in document TWP/3/4, Annex II, by December 31, 2019.

112. The TWF noted the invitation to submit comments on Annex II, part A "UPOV codes amendments to be checked", part B "New UPOV codes or new information", and part C "Crop type(s) of UPOV codes used in the PLUTO database for the first time" to the Office of the Union by December 31, 2019.

PLUTO database

Program for improvements to the PLUTO database

113. The TWF noted the summary of contributions to the PLUTO database from 2015 to 2018 and the current situation of members of the Union on data contribution, as presented in document TWP/3/4, Annex I.

Content of the PLUTO database

114. The TWF noted developments concerning possible expansion of the content of the PLUTO database, as set out in document TWP/3/4, paragraph 87.

115. The TWF noted that the proposals by the WG-DEN at its fifth session concerning possible expansion of the content of the PLUTO database would be considered by the CAJ, at its seventy-sixth session, to be held in Geneva on October 30, 2019, as set out in document TWP/3/4, paragraph 89.

(b) Variety description databases

116. The TWF considered document TWP/3/2.

117. The TWF noted that the TC, at its fifty-fourth session, had agreed with the TWF that the initial step before building any database should be to agree on the information to be shared and the format to exchange and store the information.

118. The TWF noted that the TC, at its fifty-fourth session, had agreed with the proposal by the BMT that, as a first step, discussions on databases should address the issues of how to overcome ownership matters, confidentiality, access to data and material, authorization for work to be performed and availability of results and information to partners.

(c) Exchange and use of software and equipment

119. The TWF noted the information provided in document TWP/3/5.

Document UPOV/INF/16 "Exchangeable Software"

120. The TWF noted that the Council, at its fifty-second ordinary session, held in Geneva, on November 2, 2018, had adopted document UPOV/INF/16/8 "Exchangeable Software."

121. The TWF noted that the Office of the Union would issue a circular, inviting the designated persons of the members of the Union in the TC to provide or update information regarding the use of the software included in document UPOV/INF/16.

122. The TWF noted that the Office of the Union would make the information in documents UPOV/INF/16 and UPOV/INF/22 available in a searchable format on the UPOV website on the basis of the approach demonstrated at the fifty-fourth session of the TC in 2019.

Document UPOV/INF/22 "Software and equipment used by members of the Union"

123. The TWF noted that the Council, at its fifty-second ordinary session, held in Geneva, on November 2, 2018, had adopted document UPOV/INF/22/5 "Software and equipment used by members of the Union".

124. The TWF noted that the Office of the Union would issue a circular, inviting the designated persons of the members of the Union in the TC to provide or update information for document UPOV/INF/22.

(d) UPOV PRISMA

125. The TWF considered document TWP/3/3 and noted the developments concerning UPOV PRISMA.

Experiences with new types and species

126. The TWF noted that no experiences with new types and species were reported at the session.

Differences in notes for the assessment of distinctness

127. The TWF considered document TWP/3/13.

128. The TWF noted existing guidance in the General Introduction and documents TGP/8, TGP/9 and TGP/14 on differences in notes for the assessment of distinctness.

129. The TWF agreed with the clarification provided in document TWP/3/13, paragraphs 10 to 13.

Recommendations on draft Test Guidelines

(a) Test Guidelines to be put forward for adoption by the Technical Committee

130. The TWF agreed that the following draft Test Guidelines should be submitted to the TC for adoption on the basis of the following documents and the comments in this report:

Subject	Basic Document(s) (2019)
Oranges (*Citrus* L. - Group 2) (Partial revision: Characteristics 26, 56, 64, 81, 83)	TG/202/1 Rev., TWF/50/7
Pummelo (Grapefruit and) (*Citrus* L. - Group 4) (Partial revision: Characteristics 30, 50, 63, 65, 66, 81)	TG/204/1 Rev., TWF/50/8

(b) Test Guidelines to be discussed at the fifty-first session

131. The TWF agreed to discuss the following draft Test Guidelines at its fifty-first session:

Subject	Basic Document(s) (2019)
Apple (fruit varieties) (Revision) (*Malus domestica* Borkh.)	TG/14/10(proj.2)
*Apricot (*Prunus armeniaca* L.) (Revision)	TG/70/5(proj.3)
Argania (*Argania spinosa* (L.) Skeels)	TG/ARGAN(proj.4)
Date Palm (*Phoenix dactylifera*)	TG/PHOEN_DAC (proj.1)
Grapevine (*Vitis* L.) (Revision)	TG/50/10(proj.2)
Guava (*Psidium guajava* L.) (Revision)	TG/110/3
Goji (*Lycium* L.)	NEW
Hazelnut (*Corylus americana* Marshall) (Revision)	TG/71/3
Lemon (Lemons and Limes (*Citrus* L. - Group 3)) (Partial revision: deletion of Characteristics 53, 56 and 67; changes to Characteristics 29, 68, 73	TG/203/1 Rev.

Mandarin (*Citrus* L. – Group 1) (Partial revision: deletion of Characteristics 9 to 12, 15, 18, 19, 27, 35, 36, 38 to 40, 42, 43, 45 to 47, 50, 51, 58, 60, 65, 66, 68 to 70, 75, 90, 91, 93 and 104; changes to Characteristics 25, 67, 73, 91 and 98)	TG/201/1 Rev.
Mulberry (*Morus* L.)	TG/MORUS(proj.1)
*Physic Nut (*Jatropha curcas* L.)	TG/JATRO_CUR (proj.2)
*Pistachio (*Pistacia* L.)	TG/PISTA(proj.3)
Seabuckthorn (*Hippophae rhamnoides* L.) (Partial revision: Ad. 21)	TG/240/1
Strawberry (*Fragaria* L.) (Revision)	TG/22/11(proj.1)
Sweet Cherry (*Prunus avium* L.) (Revision)	TG/35/8(proj.1)
Trifoliate Orange ((Poncirus) (*Citrus* L. - Group 5)) (Partial revision: deletion of Characteristics, 4, 20, 86; changes to Characteristics: 25, 100, 101	TG/83/4 Rev.

132. The leading experts, interested experts and timetables for the development of the Test Guidelines are set out in Annex VII to this report.

(c) Possible Test Guidelines to be discussed in 2021

133. A list of Test Guidelines the TWF agreed to possibly discuss at its session in 2021 is presented in Annex VII to this report.

Date and place of the next session

134. At the invitation of France, the TWF agreed to hold its fifty-first session in Nîmes, France, from July 6 to 10, 2020.

Chairperson

135. The TWF agreed to propose to the TC that it recommend to the Council to elect Mr. Christopher Barnaby, from New Zealand, as the next chairperson of the TWF.

Future program

136. The TWF proposed to discuss the following items at its next session:

1. Opening of the Session
2. Adoption of the agenda
3. Short reports on developments in plant variety protection
   (a) Reports from members and observers (written reports to be prepared by members and observers
   (b) Reports on developments within UPOV (oral report by the Office of the Union)
4. Molecular Techniques (document to be prepared by the Office of the Union)
   (a) Developments in UPOV (document to be prepared by the Office of the Union)
   (b) Presentation on the use of molecular techniques in DUS examination (presentations invited from members of the Union)
5. TGP documents (documents to be prepared by the Office of the Union)
6. Variety denominations (document to be prepared by the Office of the Union)
7. Information and databases

(a) UPOV information databases (documents to be prepared by the Office of the Union)

(b) Variety description databases (documents to be prepared by the Office of the Union)

(c) Exchange and use of software and equipment (document to be prepared by the Office of the Union)

(d) UPOV PRISMA (document to be prepared by the Office of the Union)

8. Experiences with new types and species (oral reports invited)
9. Access to plant material for the purpose of management of variety collections and DUS examination (Italy to prepare a document)
10. DUS examination of mutant varieties of apple (document to be prepared by the European Union)
11. Matters relevant in DUS examination for the fruit sector (presentations invited from members and observers)
12. Guidance for drafters of Test Guidelines
13. Matters to be resolved concerning Test Guidelines put forward for adoption by the Technical Committee (if appropriate)
14. Discussion on draft Test Guidelines (Subgroups)
15. Recommendations on draft Test Guidelines
16. Date and place of the next session
17. Future program
18. Adoption of the Report of the session (if time permits)
19. Closing of the session

Visit

137. On the morning of June 26, 2019, the TWF visited the NÉBIH testing station in Pölöske in the West Transdanubian Region. The TWF was welcomed by Mr. Ferenc Szili, Head of the Variety Testing Station Pölöske, NÉBIH, and Mr. Miklós Pöczik, Head of the Szombathely region, NÉBIH. The TWF received a presentation by Ms. Szilvia Márkne Deák, DUS Expert at the Agricultural Genetic Resources Directorate, NÉBIH, on the activities of the testing station, a copy of which is provided in Annex V.

138. During the afternoon of June 26, 2019, the TWF visited the Research Institute for Viticulture and Enology in Badacsony, one of the 16 institutes of the National Agricultural Research and Innovation Center (NARIC). The TWF was welcomed and received a presentation by Ms. Zora Annamaria Nagy, Research Associate, a copy of which is provided in Annex VI. The TWF then received a guided tour of the vineyards.

139. The TWF adopted this report at the end of the session.

[Annexes follow]

ANNEX I

LIST OF PARTICIPANTS

I. MEMBERS

BOSNIA AND HERZEGOVINA

Mirjana BRZICA (Ms.), Head, Department of seeds, seedling and protection of new varieties of plants, Administration of Bosnia and Herzegovina for Plant Health Protection, Ministry of Foreign Trade and Economic Relations, Titova 9A, 71000 Sarajevo
(tel.: +387 33 290 722 fax: +386 33 290 711 e-mail: mirjana.brzica@uzzb.gov.ba)

Ivana MILETIC-DJERIC (Ms.), Senior Associate for Seeds and Planting Material and Protection of Varieties, Marsala Tita 9A, Sarajevo
(tel.: +387 33 290 721 fax: +387 33 290 711 e-mail: ivana.djeric@uzzb.gov.ba)

BRAZIL

Stefânia PALMA ARAÚJO (Ms.), Federal Agricultural Inspector, Head of Division, Serviço Nacional de Proteção de Cultivares (SNPC), Ministry of Agriculture, Livestock and Food Supply, Esplanada dos Ministérios, Bloco 'D', Anexo B, sala 350, 70043-900 Brasilia , D.F.
(tel.: +55 61 3218 3460 fax: +55 61 3224 2842 e-mail: stefania.araujo@agricultura.gov.br)

CANADA

Marc DE WIT (Mr.), Examiner, Plant Breeders' Rights Office, Canadian Food Inspection Agency (CFIA), Room 59-IE-334, 59 Camelot Drive, Ottawa Ontario K1A 0Y9
(tel.: +1 613 773 7198 fax: +1 613 773 7115 e-mail: Marc.deWit@canada.ca)

CHILE

Alvaro ULLOA (Mr.), Fruit plant Examiner, PBR Department, Agricultural and Livestock Service, Ministry of Agriculture, Av. Presidente Bulnes 140, segundo piso, Casilla 4088, Santiago de Chile
(tel.: 56 2 2 345 1565 e-mail: alvaro.ulloa@sag.gob.cl)

CHINA

Yongqi ZHENG (Mr.), Director, Laboratory for Molecular Testing of New Plant Varieties, Office of Protection of New Varieties of Plants, National Forestry and Grassland Administration, Dongxiaofu 1, Xiangshan Road, Haidian District, Beijing 100091
(tel.: +86 10 6288 8565 fax: +86 10 6287 2015 e-mail: zhengyq@caf.ac.cn)

Mei MA (Ms.), Division Director, Office of Protection of New Varieties of Plants, National Forestry and Grassland Administration, No. 18 Hepingli East Street, Beijing 100714
(tel.: +86 10 8423 8968 fax: +86 10 8423 8885 e-mail: mm5557@sina.com)

CZECH REPUBLIC

Andrea POVOLNÁ (Ms.), Head of DUS Department, National Plant Variety Office, Central Institute for Supervising and Testing in Agriculture (UKZUZ), Hroznová 2, 656 06 Brno
(tel.: +420 737 267 221 e-mail: andrea.povolna@ukzuz.cz)

Dusan NESRSTA (Mr.), DUS Expert for fruit, Central Institute for Supervising and Testing in Agriculture (ÚKZÚZ), Hroznová 2, Brno 603 00
(e-mail: dusan.nesrsta@ukzuz.cz)

Tomas JAN (Mr.), DUS Expert for fruit, Central Institute for Supervising and Testing in Agriculture (ÚKZÚZ), Hroznová 2, Brno 656 06
(tel.: +420 737 267 238 e-mail: tomas.jan@ukzuz.cz)

Vít RUCKI (Mr.), DUS Expert for Grapevine, Central Institute for Supervising and Testing in Agriculture (ÚKZÚZ), Hroznová 2, Brno 603 00
(e-mail: vit.rucki@ukzuz.cz)

EUROPEAN UNION

Jean MAISON (Mr.), Deputy Head, Technical Unit, Community Plant Variety Office (CPVO), CS 10121, 49101 ANGERS Cedex 02, France
(tel.: +33 2 4125 6435 e-mail: maison@cpvo.europa.eu)

Urszula BRAUN-MLODECKA (Ms.), Ornamental Plants/Fruit Crops, Community Plant Variety Office (CPVO), 3, boulevard Maréchal Foch, CS 10121, 49101 Angers Cedex 02, France
(tel.: +33 (0)2 41 25 64 49 e-mail: braun@cpvo.europa.eu)

FRANCE

Carole DIRWIMMER (Ms.), Manager of Fruit DUS team, Groupe d'étude et de contrôle des variétés et des semences (GEVES), 4790 route des Vignères, 84250 Le Thor
(tel.: +33 490 78 66 63 e-mail: carole.dirwimmer@geves.fr)

GERMANY

Swenja TAMS (Ms.), Head of Section General affairs of DUS testing, Bundessortenamt, Osterfelddamm 80, 30627 Hanover
(tel.: +49 511 9566 5607 fax: +49 511 9566 9600
e-mail: Swenja.Tams@bundessortenamt.de)

Erik SCHULTE (Mr.), Head of Section Fruit and Genebank, Testing Station Wurzen, Federal Plant Variety Office, Torgauer Str. 100, 04808 Wurzen
(tel.: +49 3425 90 40 24 fax: +49 3425 90 40 20 e-mail: erik.schulte@bundessortenamt.de)

Rudolf BECHER (Mr.), Examiner, Bundessortenamt, Pruefstelle Hassloch, Boehler Str. 100, 67454 Hassloch
(tel.: +49 63 24 92 40 11 fax: +49 63 24 92 40 30
e-mail: rudolf.becher@bundessortenamt.de)

HUNGARY

Tamás TARPATAKI (Mr.), Deputy State Secretary for Agricultural Markets,Ministry of Agriculture, Apáczai Csere János u. 9., 1052 Budapest
(tel.: +36-1-795-8483 e-mail: aphat@am.gov.hu)

Gergely MÉSZÁROS (Mr.), Expert, Department of Agricultural Genetic Resources, Ministry of Agriculture, Apáczai Csere János u. 9., 1052 Budapest
(tel.: +36-1-795-4335 e-mail: gergely.meszaros@am.gov.hu)

Richárd ZSIGMOND (Mr.), Director, Agricultural Genetic Resources Directorate, National Food Chain Safety Office (NÉBIH), Keleti K. u. 24, 1024 Budapest
(e-mail: mgei@nebih.gov.hu)

György PERNESZ (Mr.), Head, Variety Testing Department of Horticultural Crops, Agricultural Genetic Resources Directorate, National Food Chain Safety Office (NÉBIH), Keleti K. u. 24, 1024 Budapest
(tel.: +36 1 3369160 e-mail: perneszgy@nebih.gov.hu)

Ferenc SZILI (Mr.), Head of the Variety Testing Station Pölöske, National Food Chain Safety Office (NÉBIH), 8929 Pölöske
(tel.: +36 30 5659 503 e-mail: szilif@nebih.gov.hu)

Tímea UZONYI DEZSŐNÉ (Ms.), Deputy Head of the Variety Testing Station Pölöske, National Food Chain Safety Office (NÉBIH), 8929 Pölöske
(e-mail: uzonyid@nebih.gov.hu)

Zoltán CSÜRÖS (Mr.), Coordinator, DUS Expert, Variety Testing Dept. for Field Crops, National Food Chain Safety Office (NÉBIH), Keleti K. u. 24., 1024 Budapest
(tel.: +36 70 4360671 e-mail: csurosz@nebih.gov.hu)

Ildikó FÓRINÉ NÉMETH (Ms.), Coordinator, Variety Testing Department for Field Crops, Agricultural Genetic Resources Directorate, National Food Chain Safety Office (NÉBIH), Keleti K. u. 24., 1024 Budapest
(e-mail: forinei@nebih.gov.hu)

Szilvia MÁRKNÉ DEÁK (Ms.), DUS Expert, Agricultural Genetic Resources Directorate, National Food Chain Safety Office (NÉBIH), Keleti Károly u. 24., 1024 Budapest
(tel.: +36 70 436 0657 e-mail: DeakSz@nebih.gov.hu)

Marianna FEHÉR (Ms.), DUS Expert for vegetables, Department for Variety Testing of Horticultural Plants, Agricultural Genetic Resources Directorate, National Food Chain Safety Office (NÉBIH), Keleti Károly utca 24, 1024 Budapest
(tel.: +36 1 336 91 62 e-mail: feherm@nebih.gov.hu)

Zsolt SZANI (Mr.), Fruit Expert, Variety Testing Dept. for Horticultural Crops, National Food Chain Safety Office (NÉBIH), Keleti K. u. 24., 1024 Budapest
(tel.: +36 70 436 0656 e-mail: szanizs@nebih.gov.hu)

Dávid FEKETE (Mr.), DUS expert, Variety Testing Department of Horticultural Crops, Agricultural Genetic Resources Directorate, National Food Chain Safety Office (NÉBIH), Keleti K. u. 24., 1024 Budapest
(tel.: +36 302421662 e-mail: feketeda@nebih.gov.hu)

Ferenc KOVÁCS (Mr.), DUS expert, Variety Testing Department of Horticultural Crops, Agricultural Genetic Resources Directorate, National Food Chain Safety Office (NÉBIH), Keleti K. u. 24., 1024 Budapest
(e-mail: kovacsf@nebih.gov.hu)

Gyöngyvér Éva SÓTONYI (Ms.), Variety Testing Department of Horticultural Crops , Agricultural Genetic Resources Directorate, National Food Chain Safety Office (NÉBIH), Keleti K. u. 24, 1024 Budapest
(e-mail: laszlogy@nebih.gov.hu)

Stefánia BALOGH (Ms.), Seed engineer, Seed Testing Department, Agricultural Genetic Resources Directorate, National Food Chain Safety Office (NÉBIH), Keleti K. u. 24., 1024 Budapest
(tel.: +36 704320467 e-mail: baloghs@nebih.gov.hu)

Zsuzsa SZABÓ, Coordinator, Seed Testing Department, Agricultural Genetic Resources Directorate, National Food Chain Safety Office (NÉBIH), Keleti K. u. 24, 1024 Budapest
(e-mail: szabozsu@nebih.gov.hu)

Ágnes KÓKAI-KUNNÉ SZABÓ (Ms.), Legal expert, Károli Gáspár University Faculty of Law, Viola u. 2-4, 1042 Budapest
(tel.: +36-30 547 8456 e-mail: agnes.kokaikunneszabo@gmail.com)

ISRAEL

Ben-Zion ZAIDMAN (Mr.), DUS Examiner, Plant Breeders' Rights Unit, Ministry of Agriculture and Rural Development, P.O. Box 30, Beit-Dagan 50250
(tel.: +972 3 948 5833 fax: +972 3 9485839 e-mail: benzionz@moag.gov.il)

ITALY

Flavio Roberto DE SALVADOR (Mr.), DUS Expert, Via Costa Rotonda 27, 00040 Marino (Rome), 00040 Marino
(tel.: +39 338 289 5409 e-mail: fr.desalvador@gmail.com)

Petra ENGEL (Ms.), DUS Expert, CREA-Council for Research in Agriculture and Economics (CREA), Office for International Cooperation, Via Po 14, 00198 Rome
(tel.: +39 06 47836 681 fax: +39 06 79341630 e-mail: petra.engel@crea.gov.it)

Maria Antonietta PALOMBI (Ms.), Researcher, CREA-OFA - Research Center for Olive, Fruit and Citrus Trees, via Fioranello 52, 00134 Roma
(tel.: +390679348178 e-mail: mariaantonietta.palombi@crea.gov.int)

Roberto CARRARO (Mr.), Researcher, CREA - Research Centre for Viticulture and Enology, via Casoni 13/A, 31058 Susegana (TV)
(tel.: +39 04 387 3264 e-mail: roberto.carraro@crea.gov.it)

JAPAN

Yosuke ABE (Mr.), Assistant Examiner, Plant Variety Protection Office, Intellectual Property Division Food Industry Affairs Bureau, Ministry of Agriculture, Forestry and Fisheries (MAFF), 1-2-1 Kasumigaseki, Chiyoda-ku, 100-8950 Tokyo
(tel.: +81-3-6738-6466 fax: +81-3-3502-6572 e-mail: yosuke_abe880@maff.go.jp)

MOROCCO

Abdelaziz BENSAJJAY (Mr.), Chef de la division de contrôle des semences et plants, Direction de la Protection du Patrimoine Animal et Végétal, Office National de la Sécurité Sanitaire des Produits Alimentaires (ONSSA), Rue Sidi Al Hafiane Cherkaoui, B.P. 1308, Rabat-Instituts
(tel.: +212 6 73 99 78 32 fax: +212 5 37 77 98 52 e-mail: bensajjay.aziz@gmail.com)

Ibtihaj BELMEHDI (Ms.), Head of Plant Control service, DUS Examiner / Expert in charge of the Control and Certification of Fruit species, Division of Seed and Plant Control, National Office of Sanitary Food Safety (ONSSA), Avenue Sidi Al Hafiane Cherkaoui, Al Irfane, Rabat Instituts, Rabat
(tel.: +212 537 778852 e-mail: ibtibelmehdi@hotmail.com)

Hamid BENYAHIA (Mr.), Coordinateur, Unité de Recherche Amélioration des plantes et Conservation des Ressources Phytogénétiques, Institut National de La Recherche Agronomique (INRA), Route Sidi Yahya du Gharb, Km 9, BP 257, Kénitra
(tel.: +212 660 157216 fax: +212 660 156327 e-mail: hamidbenyahia2002@yahoo.fr)

NEW ZEALAND

Christopher J. BARNABY (Mr.), Assistant Commissioner, Plant Variety Rights Office, Intellectual Property Office of New Zealand, Ministry of Business, Innovation and Employment, Private Bag 4714, 55 Wordsworth St., Christchurch 8140
(tel.: +64 3 9626206 e-mail: Chris.Barnaby@pvr.govt.nz)

REPUBLIC OF KOREA

Oh-woung KWON (Mr.), Director General, National Forest seed and variety center (NFSV), National Forest Seed & Variety Center, 72 Suhoeri-ro, Suanbo-myeon, Chungju-si, Chungcheongbuk-do 27495
(tel.: +82 43 850 3300 fax: +82 43 848 0451 e-mail: owkwon@korea.kr)

Sung-Ryul RYU (Mr.), Research Scientist, National Forest seed and variety center (NFSV), 72 Suhoeri-ro, Suanbo-myeon, Chungju-si, Chungcheonbuk-do 27495
(tel.: +82 43 850 3325 fax: +82 43 850 3392 e-mail: 25ryul@korea.kr)

Sang Don YUN (Mr.), Research Officer, International Seed Training Center, Korea Seed and Variety Service (KSVS), 145, Hyuksin-8-ro, Gimcheon-si, Gyeongsangbuk-do
(tel.: +82 54 840 1510 fax: +82 54 810 1550 e-mail: yunsd@korea.kr)

HyunWoo OH, DUS examiner, Korea Seed and Variety Service (KSVS), 7415, Jungsangandong-ro, Nam won-eup, Seogwipo-si, Jeju-do
(tel.: +82 64 900 3014 fax: +82 64 900 2997 e-mail: blackcow@korea.kr)

ROMANIA

Cosmina Luminita STANCIU (Ms.), Expert advisor in DUS testing for fruit trees, vines and small fruits, State Institute for Variety Testing and Registration (ISTIS), Bd. Marasti 61, sector 1, OP 25, CP 8, 011464 Bucarest
(tel.: +40 21 318 4380 fax: +40 21 318 4408 e-mail: cosminadiaconu@yahoo.com)

SLOVAKIA

Bronislava BÁTOROVÁ (Ms.), National Coordinator for the Cooperation of the Slovak Republic with UPOV/ Senior Officer, Department of Variety Testing, Central Controlling and Testing Institute in Agriculture (ÚKSÚP), Matúskova 21, 833 16 Bratislava
(tel.: +421 2 59 880 204, +421 918 968 014 fax: +421 37 652 3086
e-mail: bronislava.batorova@uksup.sk)

Lubomir BASTA (Mr.), DUS expert for agricultural species, Variety Testing Department, Central Controling and Testing Institute in Agriculture Bratislava (UKSUP), Testing Station Partizánska 14, 053 61 Spisské Vlachy
(tel.: + 421 53 4495311 e-mail: lubomir.basta@uksup.sk)

SPAIN

Nuria URQUÍA (Ms.), Head of Area of the National Registry of Plant Varieties, Spanish Plant Variety Office (OEVV), Ministry of Agriculture, Fisheries and Food, Calle Almagro 33, 28010 Madrid
(tel.: +34 91 347 4508 e-mail: nurquia@mapa.es)

Francisco José FABADO GUILLEM (Mr.), Citrus and other species DUS testing unit (UETIV) Manager, Instituto Valenciano de Investigaciones Agrarias (IVIA), CV-315, Km 10,7 (Carretera Moncada-Náquera, Km. 4., 46113 Moncada
(tel.: +34 676 368 970 e-mail: fabado_fra@gva.es)

Neus ALETÀ SOLER (Ms.), Responsable Centro de Examen de Juglans sp. y C. avellana, Instituto de Investigación y Tecnología Agroalimentaria (IRTA), Torre Marimon, 08140 Caldes de Montbui
(tel.: +34 902 789 449 Ext. 1325 e-mail: neus.aleta@irta.cat)

II. ORGANIZATIONS

INTERNATIONAL COMMUNITY OF BREEDERS OF ASEXUALLY REPRODUCED ORNAMENTAL AND FRUIT VARIETIES (CIOPORA)

Micaela FILIPPO (Ms.), Legal Council, Deichstr. 29, 20459 Hamburg , Germany
(tel.: +49 40 555 63702 fax: +49 40 555 63703 e-mail: micaela.filippo@ciopora.org)

Dominique THÉVENON (Ms.), Board member, Treasurer - CIOPORA, AIGN®, International Community of Breeders of Asexually Reproduced Ornamental and Fruit Plants (CIOPORA), Deichstrasse 29, 20459 Hamburg , Germany
(tel.: +33 4 90347149 e-mail: t.dominique4@orange.fr)

Yael Victoria MIARA (Ms.), Vice Head Technical Expert Fruit, Grapa Varieties Ltd, 19 Hazait St., P.O. Box 2039, 30900 Zichron Yaakov, Israel
(tel.: +972 4 6292274 e-mail: vered@grapaes.com)

An VAN DEN PUTTE (Ms.), IP Manager, Better3fruit, 36, Steenberg, 3202 Rillaar, Belgium
(tel.: +32 16 241610 fax: +32 16 228895 e-mail: an@better3fruit.com)

Jan Wouter VAN ECK (Mr.), License and IP Manager / Crop expert - leader fruit section Strawberry, Fresh Forward Marketing BV, Wielseweg 38a, Eck en Wiel 4024 BK, Netherlands
(tel.: +31 613138532 e-mail: janwouter.vaneck@fresh-forward.nl)

Sonia SOTO JOVER (Ms.), Technical Coordinator, SNFL S.L., Vereda de Fortuna 35, Cabezo de Torres, Murcia 30110, Spain
(tel.: +34 686 124 056 e-mail: sonia.soto@snfl.co.uk)

III. OFFICERS

Jean MAISON (Mr.), Chair

IV. OFFICE OF UPOV

Ben RIVOIRE (Mr.), Technical/Regional Officer (Africa, Arab Countries), International Union for the Protection of New Varieties of Plants (UPOV), Chemin des Colombettes 34, 1211 Geneva 20, Switzerland
(tel.: +41 22 338 8426 fax: +41 22 733 0336 e-mail: ben.rivoire@upov.int)

Romy OERTEL (Ms.), Secretary II, International Union for the Protection of New Varieties of Plants (UPOV), Chemin des Colombettes 34, 1211 Geneva 20, Switzerland
(tel.: +41 22 338 7293 fax: +41 22 733 0336 e-mail: romy.oertel@upov.int)

Jessica MAY (Ms.), Secretary I, International Union for the Protection of New Varieties of Plants (UPOV), Chemin des Colombettes 34, 1211 Geneva 20, Switzerland
(tel.: +41 22 338 9359 fax: +41 22 733 0336 e-mail: jessica.may@upov.int)

[Annex II follows]

ANNEX II

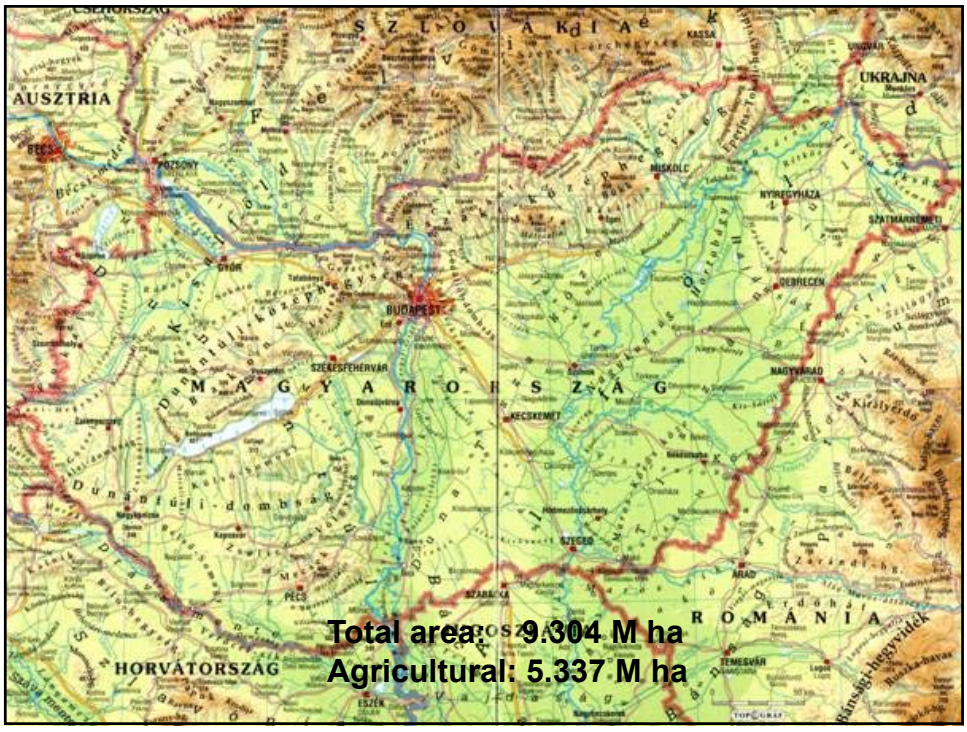
PRESENTATION ON AGRICULTURE IN HUNGARY
BY MR. TAMÁS TARPATAKI, DEPUTY STATE SECRETARY FOR AGRICULTURAL MARKETS,
MINISTRY OF AGRICULTURE

MINISTRY OF AGRICULTURE

The Hungarian Agriculture in Figures

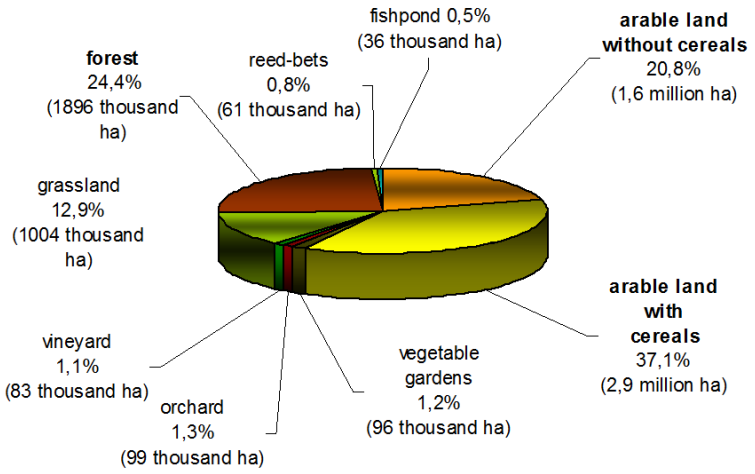
Tamás TARPATAKI

Deputy State Secretary for Agricultural Markets,
Ministry of Agriculture
Budapest, 24th of June, 2019.



MINISTRY OF AGRICULTURE

Distribution of cultivated area by cultivation branch (%)



Source: Central Statistical Office

3

MINISTRY OF AGRICULTURE

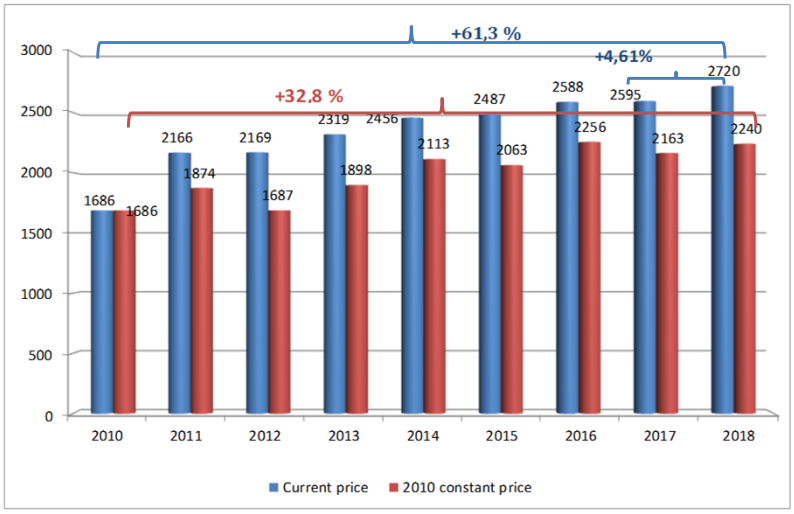
General introduction to Hungarian agriculture

- Favourable climate, abundant land endowment
- Diverse and developed agricultural production in the last 1000 years
- 9.3 million hectare land area – **7.5 million hectare productive area**
  - Arable land: 4.5 million hectares
  - Grassland: ~1 million hectares
  - Forests: 1,9 million hectares
  - Vineyards, orchards, vegetables, fishponds, etc.

4

MINISTRY OF AGRICULTURE

Agricultural output (billion HUF)

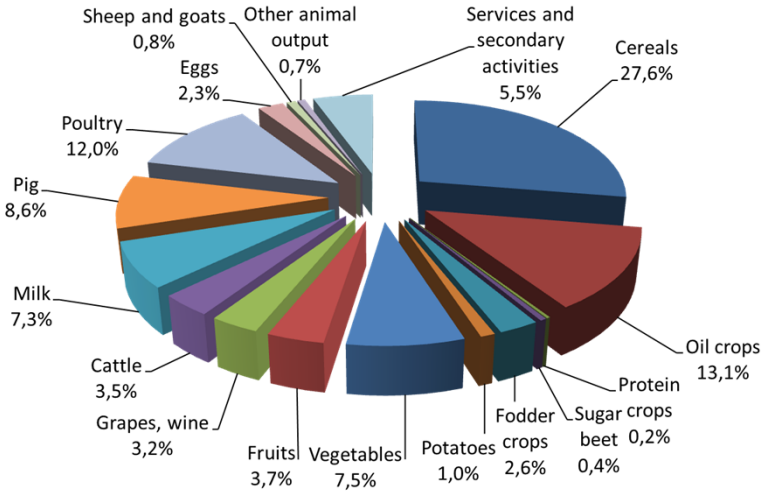


Source: Central Statistical Office

5

MINISTRY OF AGRICULTURE

Structure of agricultural output in 2018



Source: Central Statistical Office, Research Institute of Agricultural Economics, *preliminary data

6

MINISTRY OF AGRICULTURE

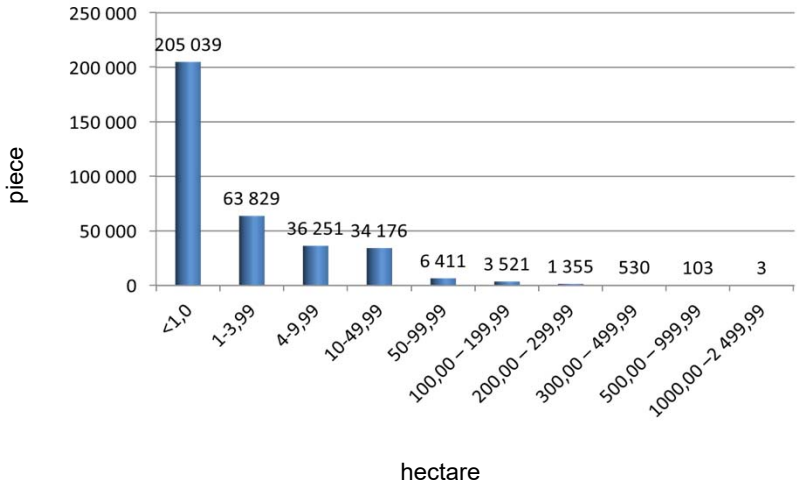
Structure of the Hungarian agriculture

- 8946 enterprises, and 416 thousand individual farms operated in 2016
- 196 thousand individual farms produce only for self consumption, 220 thousands produce for the market
- Majority of these individual farms cultivated less than 1 ha, produced only for self consumption, many of them had old, and/or unqualified owner
- Between 2013 -2016 the number of enterprises increased by 11%, the number of individual farms dropped by 12%
- Number of market oriented farms increased
- The structure of land use shifts to a positive direction
- But still fragmented land use structure: several small farms, few large farms

7

MINISTRY OF AGRICULTURE

Number of farms according to land size classes in 2016

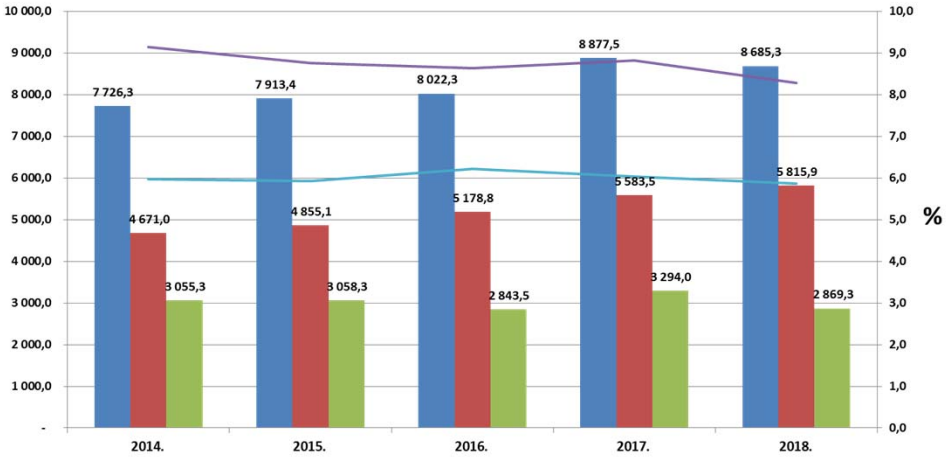


Source: Hungarian Central Statistical Office

8

MINISTRY OF AGRICULTURE

Agri-food trade (million euro)

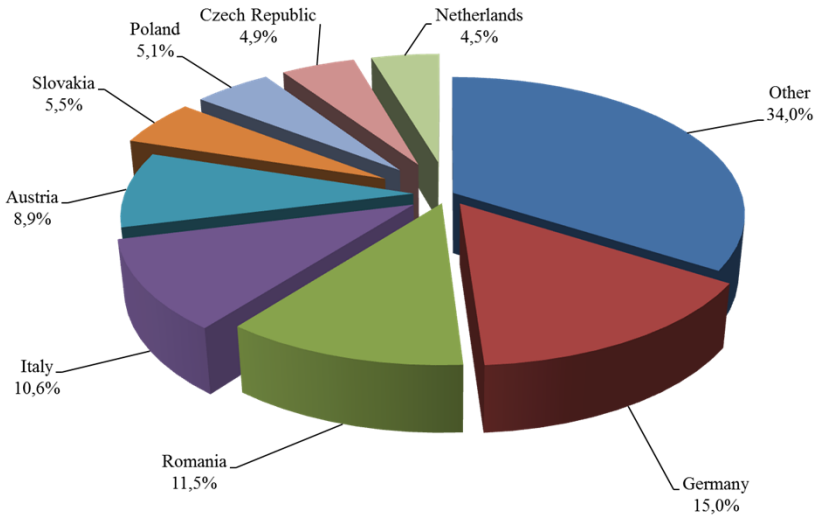


Source: Hungarian Central Statistical Office

9

MINISTRY OF AGRICULTURE

Direction of agrifood export (main countries, 2018)

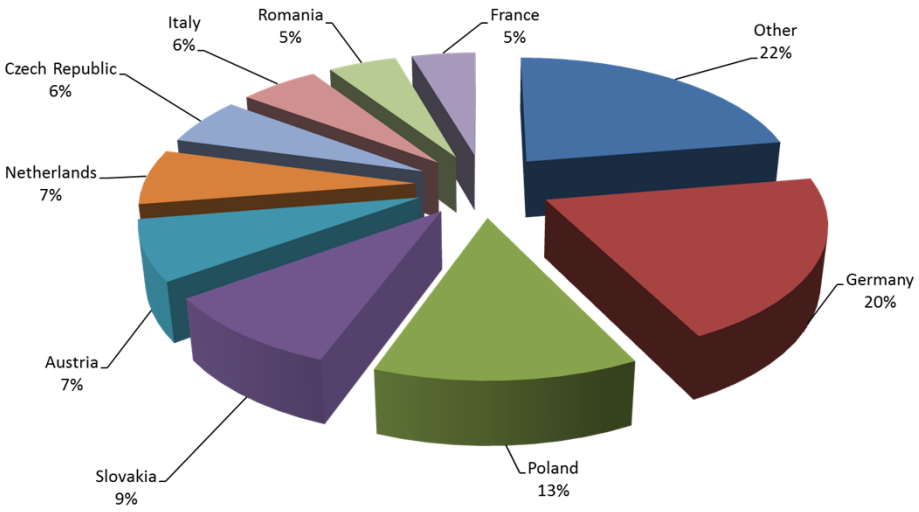


Source: Hungarian Central Statistical Office

10

MINISTRY OF AGRICULTURE

Direction of agrifood import (main countries, 2018)

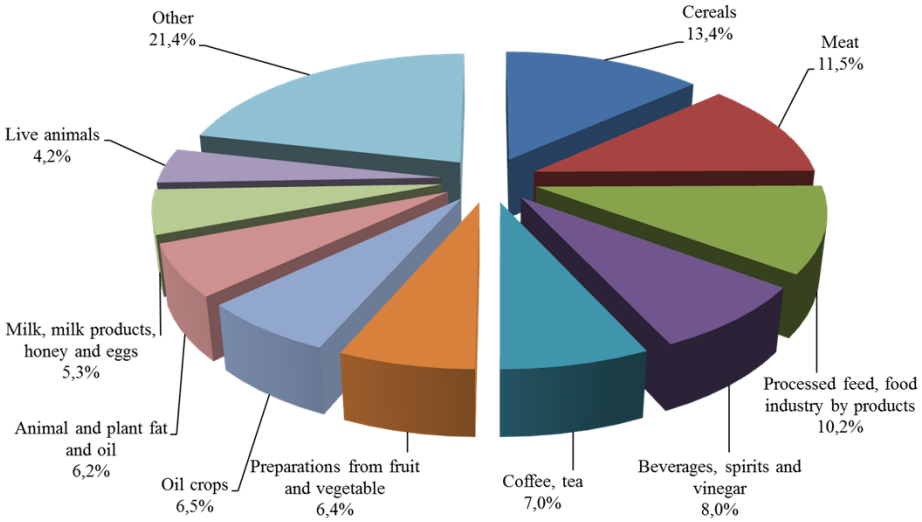


Source: Hungarian Central Statistical Office

11

MINISTRY OF AGRICULTURE

Structure of agrifood export in 2018

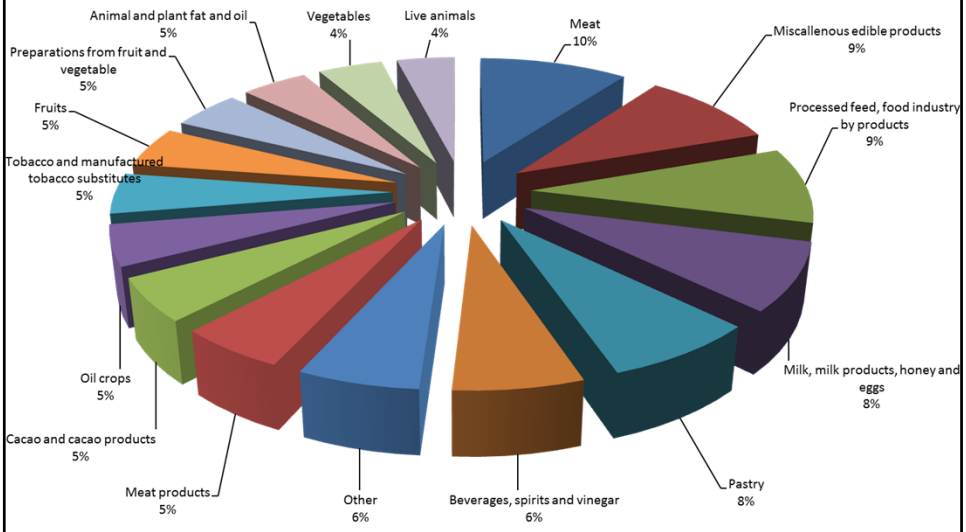


Source: Hungarian Central Statistical Office

12

MINISTRY OF AGRICULTURE

Structure of agrifood import in 2018

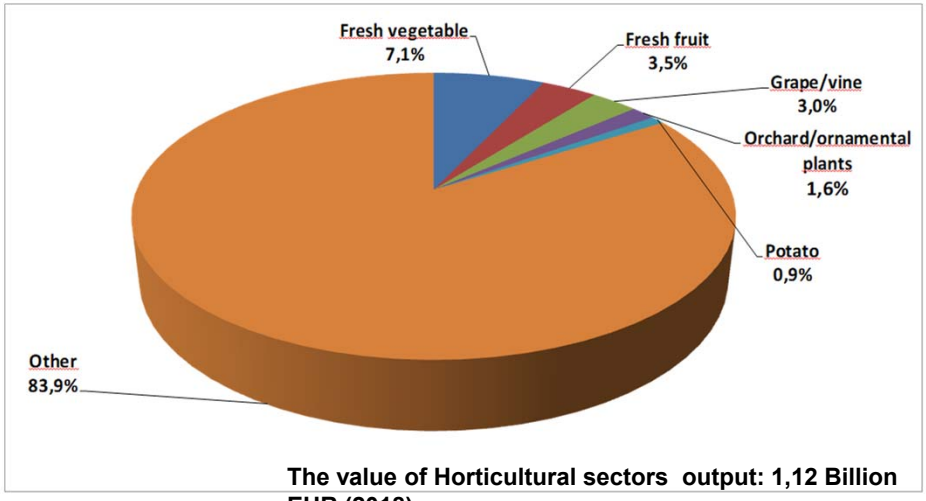


Source: Hungarian Central Statistical Office

13

MINISTRY OF AGRICULTURE

Share of horticultural sector in agriculture output



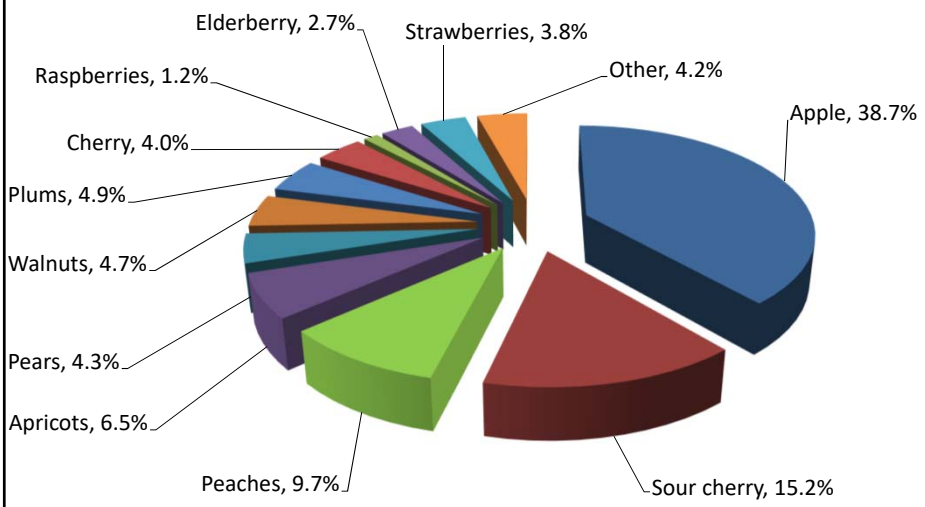
The value of Horticultural sectors output: 1,12 Billion EUR (2018)

Source: Central Statistical Office

14

MINISTRY OF AGRICULTURE

Structure of fruit production



Source: Central Statistical Office

15

MINISTRY OF AGRICULTURE

Horticultural research

- The Hungarian Fruit Research Institutes were founded in 1950.
  - Ownership of the Research Institute: 1950 – 1981 Department of Agriculture
  - 1982 – 2013 Hungarian State Holding Company
  - 2014 - Department of Agriculture

MINISTRY OF AGRICULTURE

About the National Agricultural Reserch and Innovation Centre FRI

- The NARIC FRI is under the state budget – project-based financial system.
- The mission is to
  - provide support for the growers
  - to make applied research and experimental development
  - to continue the breeding activities
  - to test or create innovations related to orchard systems and fruit growing technology

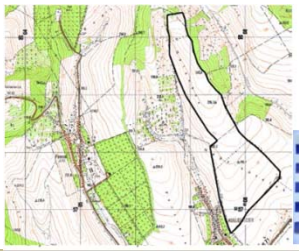



MINISTRY OF AGRICULTURE

Some research topics

- creation of virus-free propagation material
- maintaining gene bank
- data collection and evaluation
- plant protection research
- Fruit Site Cataster
- Climate change research





Rural Development in the horticultural sector

Rural Development measure	(number of) supported applications	Assessment aid (HUF billion)
For the establishment of glass and foil housings	172	22,59
Planting of vines with irrigation	415	9,18
Development of herbs	14	0,15
Support for gardening machinery	3 686	23,18
Mushroom house — setting up of cold stores	177	18,44
Young Farmer Thematic Programme	719	
Support for investments in climate change and climate change prevention	258	3,09

Rural Development in the horticultural sector

Species to plant	Area (ha)
1. Apple	1 689
2. Sour cherrry	1 066
3. Peaches	902
4. Elder	872
5. Plum	373
6. Walnut	361
7. Cherry	163
8. Pear	154
9. Asparagus	146
10. Quince	142
Total	6 253

HUNGARIAN GEOGRAPHICAL INDICATIONS

Registered name :

„Gönci kajszibarack/Gönci barack” - apricot




Applications under scrutiny by the European Commission

„Szomolyai rövidszárú fekete cseresznye” - cherry

„Nagykörűi ropogós cseresznye”- cherry

„Újfehértói meggy”- sour cherry

„Tuzséri alma” - apple

„Budaörsi őszibarack”- peach

MINISTRY OF AGRICULTURE

Thank you for your attention!

[Annex III follows]

ANNEX III

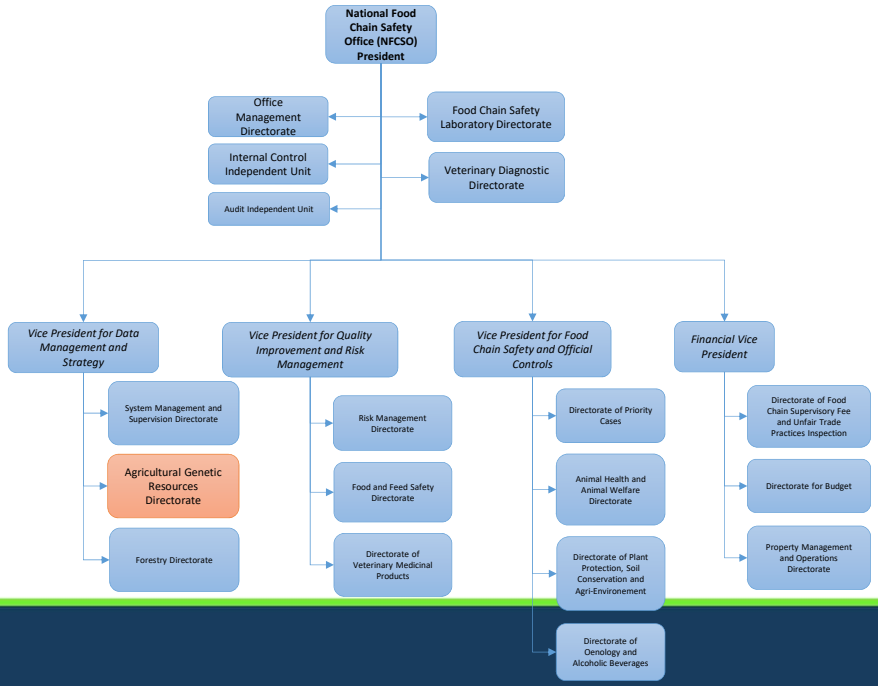
PRESENTATION ON HUNGARY'S HORTICULTURAL VARIETY TESTING AND REGISTRATION
BY MR. GYÖRGY PERNESZ, HEAD OF THE VARIETY TESTING DEPARTMENT FOR HORTICULTURAL CROPS,
NATIONAL FOOD CHAIN SAFETY OFFICE (NÉBIH)

The National Food Chain Safety Office

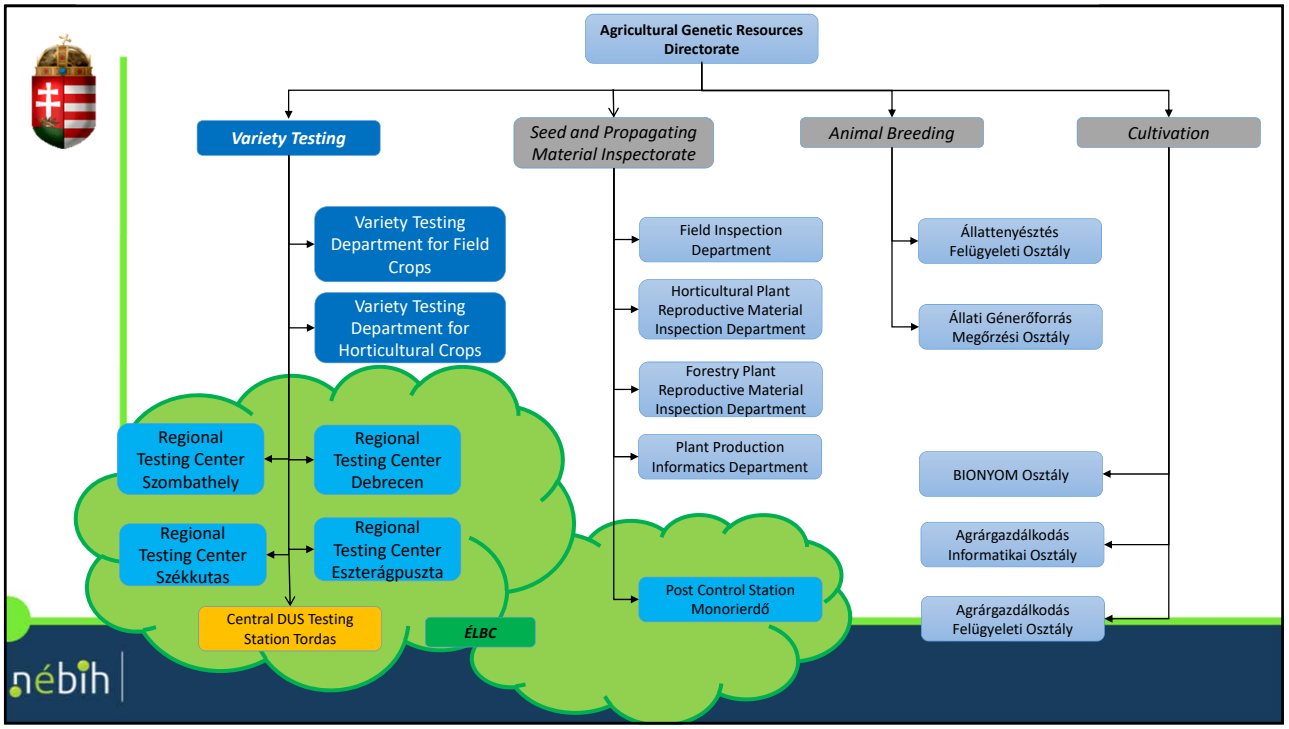
- was established on the 15th of March 2012.
- is overall countrywide authority
- works under the supervision of the Agricultural Ministry
- functional and professional directorates

nébih

National Food Chain Safety Office



nébih



Legal background

In Hungary registration of plant varieties is regulated by Act No. LII./2003 on State Registration of Plant Varieties, Multiplication and Marketing of Seed and Propagating Material and Decree No. 40/2004 (IV.7.) FVM on State Registration of Varieties enacting the regulations of the above Act.

Trials required for state registration and plant breeder right protection are performed by the National Food Chain Safety Office, according to methodology approved by the Registration Committee.

Fees are defined by the Government Decree No. 63/2012.

Directorate authority tasks

- **Carries out DUS test and VCU trials for registration and/ or PBR of agricultural and horticultural crops**
- **Issues international seed certifications and seed lot sealing documents**
- **Inspection of quality in production and marketing of seeds and propagating material**
- **Inspection of varietal identity of seeds and propagating material from breeding (variety maintenance) to commerce (post control)**
- **GMO seed control**

nébih

140 év vetőmag minősítés

History of National Seed Certification

- Seed production is a significant field of Hungary's agriculture and reaching back for a long history
- Last year we celebrate **140 years** anniversary of seed certification.
- The official seed examination process in laboratories started in 1878, when the Hungarian Royal Seed an Plant Examination Station was established.

nébih

The beginning of variety testing
(Lifework of Sándor Cserháti)

lecturer
researcher
breeder

There should be institutional backgound besides seed examination organizatition where the distinctness and value of variety can be determined.

After his initiation the first testing station was established in 1892 in Mosonmagyaróvár.

From that time the beginning of the variety testing will be calculated.

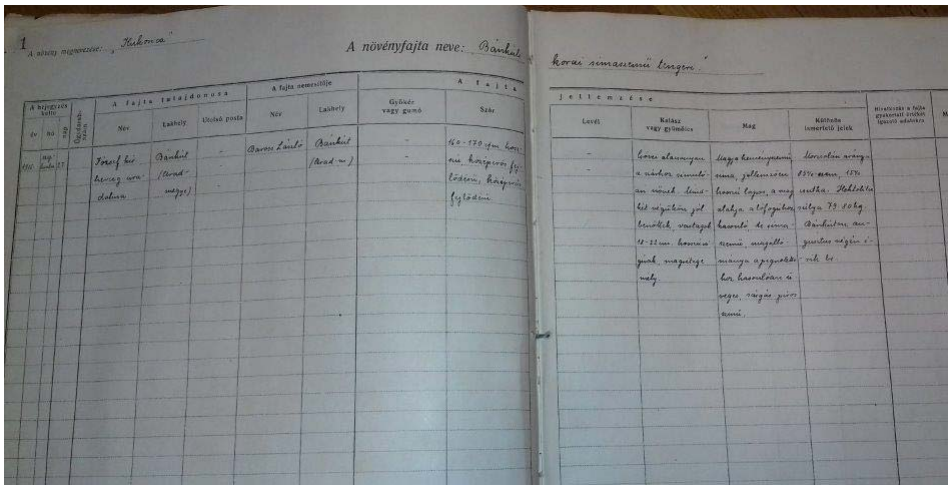
nébih

The first variety testing station in Hungary

MAGYARÓVÁR. - Orsz. m. kir. növénytérm. állomás épületei.

nébih

The first entry in the plant breed's pedigree



Description list

- The Office prepares description list of state-registered varieties:
- morphological description
- Production features
- Use

Recommended variety list

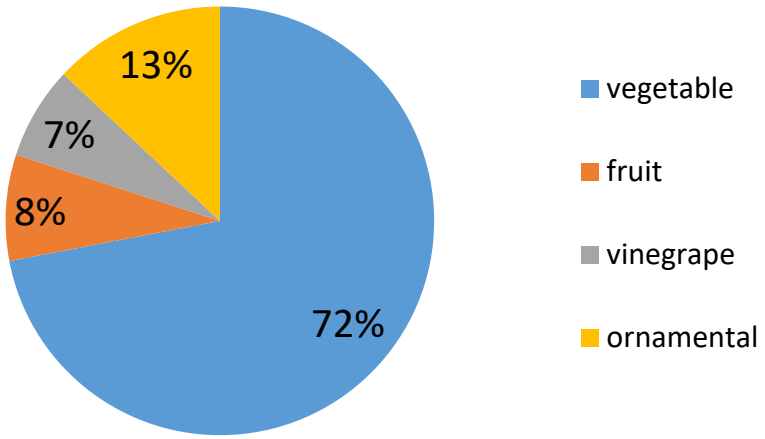
- It aims to inform farmers
- NFCSO conducts the tests
- VCU (yield, quality, plant pathology properties)
- Organization of trials
- Involvement of professional organizations

Hungarian National List of Varieties

CROPS	Number of **domestic** varieties on NLI	Number of **foreign** varieties on NLI	**Σ varieties 2018**
Vegetable crops	**413**	**755**	**1168**
Medicinal plants	**32**	**1**	**33**
Fruits	**219**	**265**	**484**
Grape	**215**	**51**	**266**
Ornamentals	**243**	**23**	**266**
Total	**1122**	**1095**	**2017**

nébih

Ratio of application (2018.)



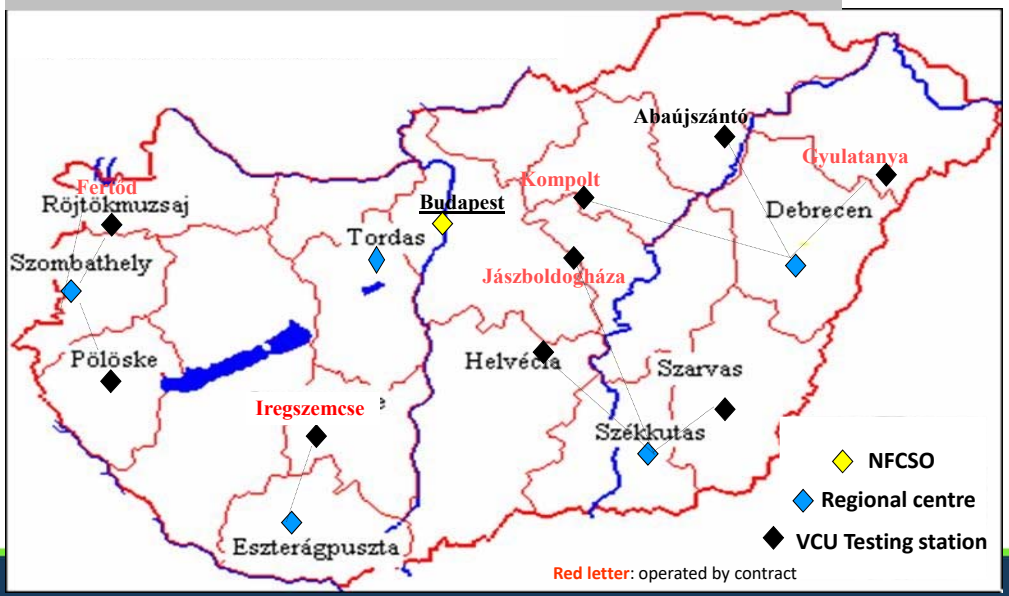
nébih

Highest number of horticultural applications, 2014-2018.

	2014.	2015.	2016.	2017.	2018.
tomato (+rootstock)	35	66	48	33	50
pepper (+rootstock)	48	99	62	65	42
squash, marrow	6	27	16	22	12
sweetcorn, popcorn	17	13	14	7	13
watermelon, melon	9	17	22	13	16
apricot	2	3	2	2	7
cherry, sour cherry	8	1	2	5	4
grape (variety+clone+rootstock)	10	5	27	16	14
ornamental	8	16	8	13	27

nébih

Variety Testing Stations



nébih

Tordas

~100 ha

- DUS central station
- Irrigation facilities

-vegetables

-hot-consuming stonefruits

(appricot, peach, 10 ha)

-almond

-other pome (medlar, quince)

-ornamentals

nébih

Greenhouse: 1850 m^2

Glasshouse: 500 m^2

Fully automat:
heating, watering,
vaporousing, ventilation,
nutrient solution

Resistance tests (pea - Fusarium)

1. Young plant cultivation

2. Inoculation

3. Planting in the tray

4. Evaluation
susceptible (note 1)
resistant (note 9)

Central Seed Division

Main activities:

- ❑ Seeds and propagating material arrive here,
- ❑treating, post and store
- ❑ Samples of VCU trials take into and store
- ❑ Seeds prepare for pre- and long-storage
- ❑ Germinating (exam of germinative ability and strain off GMO varieties)

nébih

Storage

In the past: bunker in the II.World war.

Genebank:

79 species

31000 seed samples

3 bigger and 2 smaller rooms

5 °C store temperature

GMO seeds are separetaly managed

nébih

Monorierdő - post control station

The Station serves the official control function.

The examination includes about 120 species, cca 1500 varieties which make 10.000 samples in a year

Tests required

Variety identity test: studying and controlling morphological and phenological characters of plants grow up from certified seeds and verifying stability of variety characters (write down in official description) during the multiplication.

Variety purity test: is determined in small plot test from sample of reproductive materials (contains or not other variety of plants).

nébih

Monorierdő - post control station

Greenhouse: 1500 m²
for pepper testing

Grapevine trials

Microvinification at Helvécia

Testing stations for horticultural crops, Pölöske

apple
pear
cherry, sour cherry
plum
small berries
nuts
grapevine

ornamental plants

nébih

27

Cooperation with examination offices

In the DUS examinations the specialization enables to us a better preparation for the variety description (reference collections from less species).

- PL : bean, cauliflower, broccoli
- CZ: cabbages, garlic

For the CO Authorities examined species

- PL: watermelon, squash, marrow, resistance tests
- CZ: pepper, squash, watermelon, melon, sweetcorn, cucurbita rootstock

We do DUS examinations for other Authorities:

- Germany – sweetcorn
- Austria – tomato, pepper, squash
- Croatia – peas
- Cyprus – fruit: apple, pear, apricot, peach, walnut, japanese plum, sweet cherry

nébih

CPVO entrustment for fruit species

Chestnut (Castanea sp.)
Apple (Malus domestica)
Meadlar (Mespilus germanica)
Apricot (Prunus armeniaca)
Sweet cherry (Prunus avium)
Sour cherry (Prunus cerasus)
European plum (Prunus domestica)
Prunus L. (P. armeniaca L. x P. cerasifera Ehrh. x P. pumila L. var. besseyi (L.H. Bailey) Gleason)
Peach and nectarine (Prunus persica)
Raspberry hybrid (Rubus idaeus x parvifolius)

Grapevine (Vitis L., V. rotundifolia, V. vinifera)

nébih

Cooperation with Botanical Gardens

- **Vácrátót**, MTA, National Botanical Garden
- **Soroksár**, SZIE KTK Botanical Garden

nébih

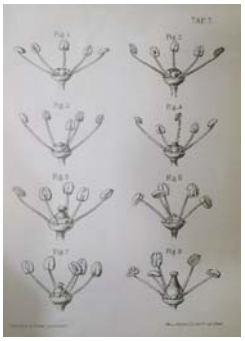
Pleurotus ostreatus

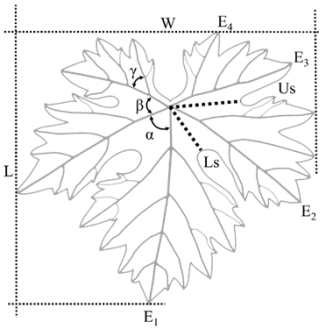
nébih

SZENT ISTVÁN UNIVERSITY
FACULTY OF HORTICULTURAL SCIENCE

Ampelometry

- The expression was introduced by Ravaz L. (1902)
- Metric characterization of the organs:
  - **Leaf** – foliometry
    - Length of the veins
    - Angles between the veins
    - Size of the serrations
  - Flower – florimetry
  - Berry – uvometry
  - Seed – carpometry





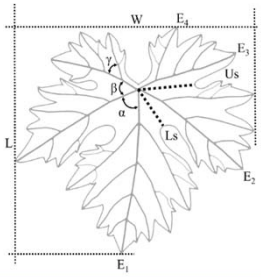
nébih

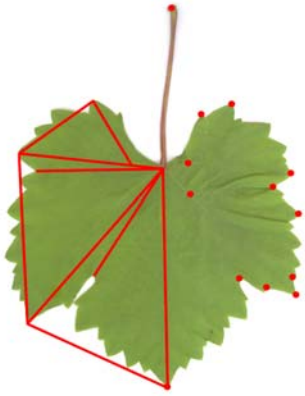
Leaf - ampelometry

SZENT ISTVÁN UNIVERSITY
FACULTY OF HORTICULTURAL SCIENCE

Traditional morphometrics

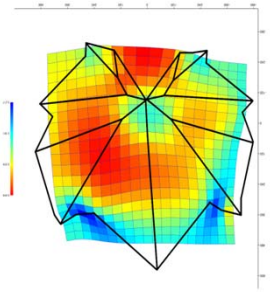
lengths
ratios
angles





Landmark-based geometric morphometrics

biometric landmarks
cartesian coordinates



nébih

Genetic background of Time of Maturity for Consumption

SZENT ISTVÁN UNIVERSITY
FACULTY OF HORTICULTURAL SCIENCE

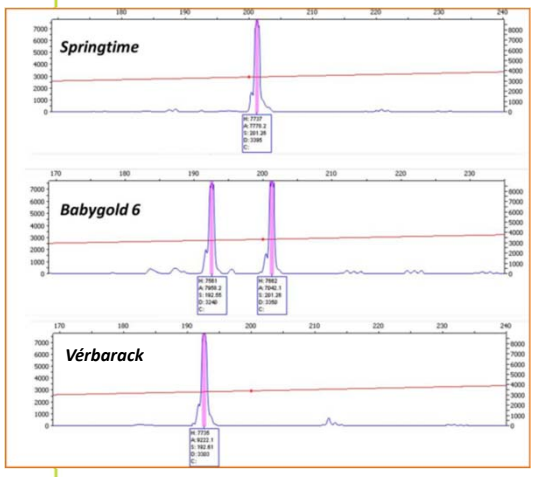
- In cooperation with SZIE University - Faculty of Horticultural Sciences
- The aim of our study was to test whether the PpNAC1 gene can be used as a reliable functional **marker for *Time of Maturity for Consumption*** (TM) in a wide range of peach cultivars of various origins and phenotypic characters.
- A total of 125 peach cultivars were examined
- considerable variations in their TMs, phenotypic traits, and origin, ranging from very early (the middle of June) to very late (the beginning of October).

April: Flowering time | May | June: Early time of maturity | July: d time of maturit | August: d time of maturit | September: Late time of maturity

nébih | In cooperation with SZIE University - Faculty of Horticultural Sciences, Department for Genetics and Plant Breeding

Result

Extremely strong correlation between TM and NAC genotype



homozygous for the 201-bp allele

early ripening (June) cultivar Springtime

heterozygous carrying both the 192-bp & 201-bp alleles

medium ripening cultivar Babygold 6 (August)

homozygous for the 192-bp allele

late ripening (end of September) cultivar Vérbarack

the use of this analysis in marker-assisted selection for MD is a cost-efficient method to predict TM within Prunus genus

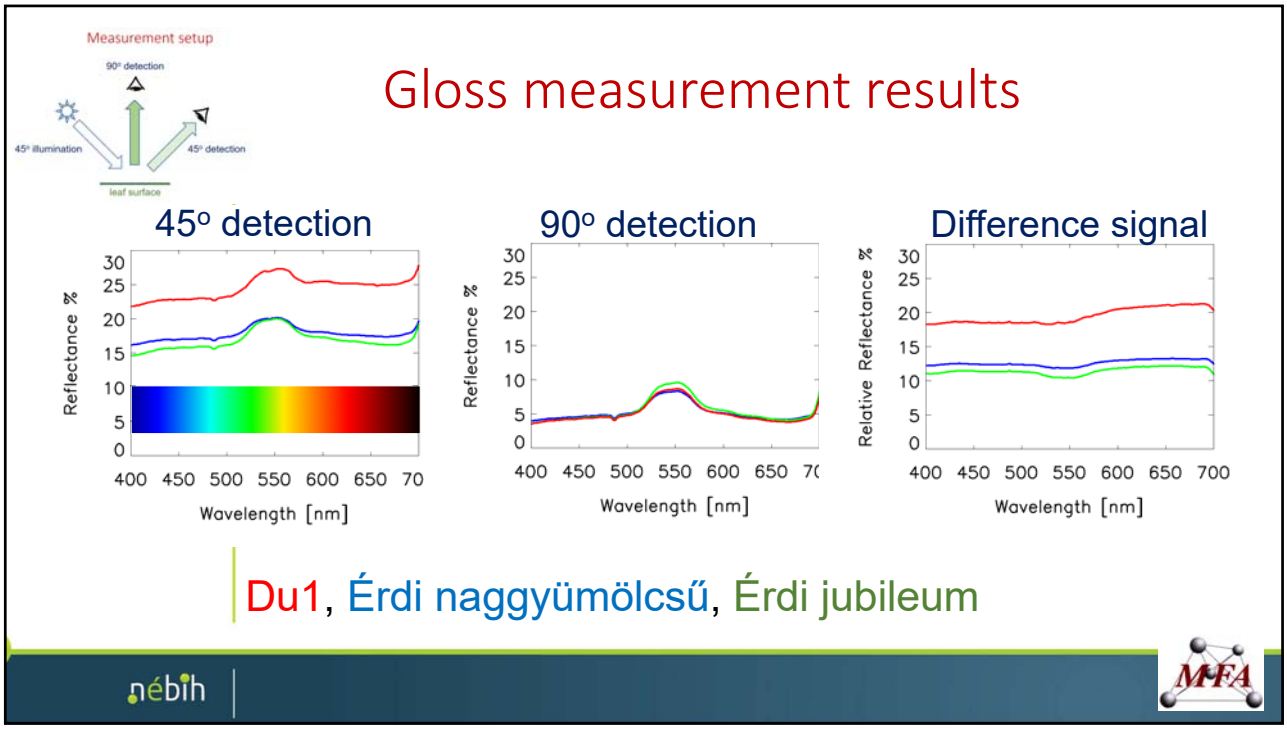
nébih | In cooperation with SZIE University - Faculty of Horticultural Sciences, Department for Genetics and Plant Breeding

Glossiness of sour cherry leaves

G. I. Márk and K. Kertész

Centre for Energy Research,
Institute for Technical Physics and Materials Science, Budapest

nébih | www.nanotechnology.hu


Measurement setup
90° detection
45° illumination
45° detection
leaf surface
Gloss measurement results
45° detection
90° detection
Difference signal
Reflectance %
Relative Reflectance %
Wavelength [nm]
Du1, Érdi naggyümölcsű, Érdi jubileum
nébih
MFA

Thank you for your attention!

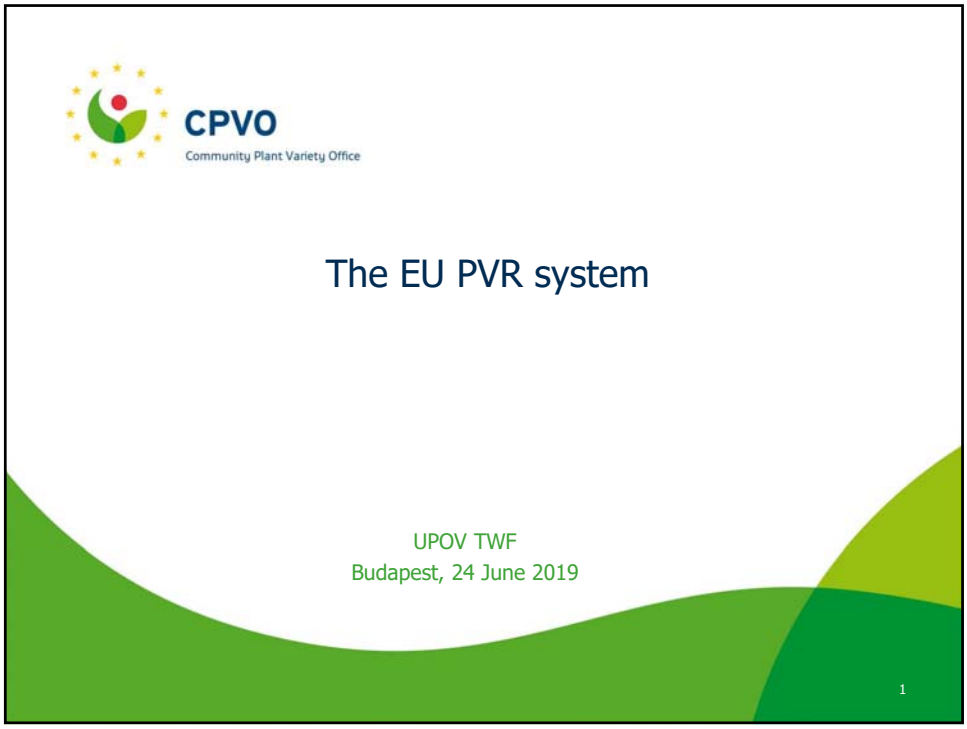
nébih

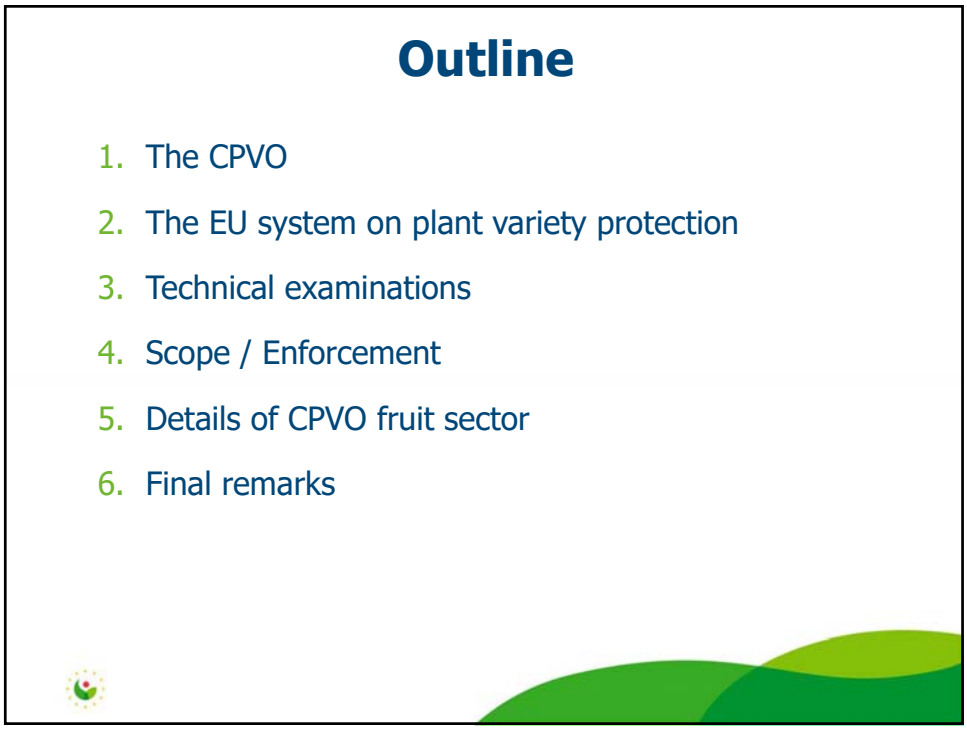
39

[Annex IV follows]

ANNEX IV

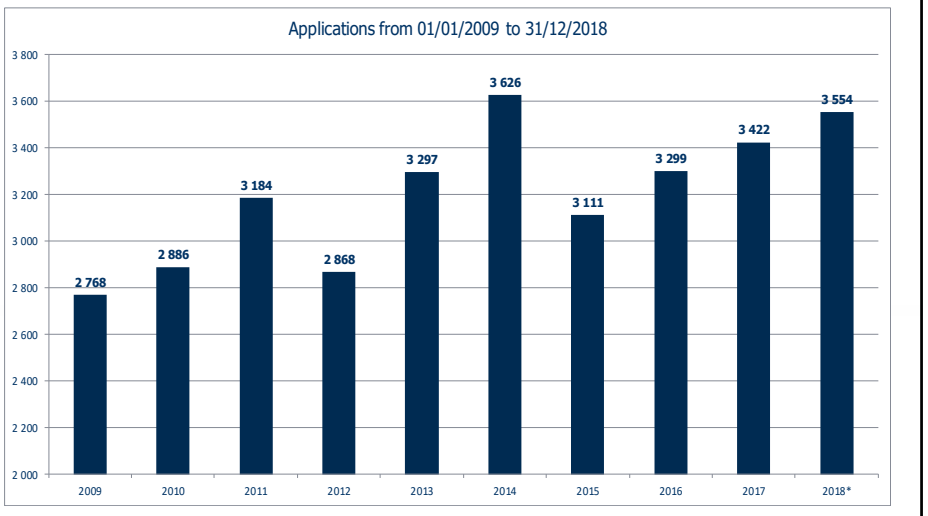
PRESENTATION ON THE PLANT VARIETY PROTECTION IN THE EUROPEAN UNION
BY MR. JEAN MAISON, DEPUTY HEAD, TECHNICAL UNIT, COMMUNITY PLANT VARIETY OFFICE (CPVO)





1. The CPVO

- The Community Plant Variety Office (CPVO) has been operational since 1995.
- The CPVO has a total of 45 staff members: 12 Nationalities.
- Located in Angers



NB: (*) comparison with 2017: +3.9 % applications

2. The EU Plant Variety System

- Established by a Regulation of the European Community in 1994.
- The procedure
  - ➢ One application
  - ➢ One procedure
  - ➢ One technical examination
  - ➢ One decision

  - ⇨ One right covering the 28 Member States of the European Union
  - ⇨ Any decision may be appealed before a Board of appeal and further to the Court of Justice.

2. The EU Plant Variety System

- Varieties of **all botanical genera and species** may be protected
- The CPVO has received up to today applications for almost **2000** different plant species
- **Duration** of the Community right: **25 years or 30 years** for vines, trees and potato varieties

2. The EU Plant Variety System

- The EU system is in line with the UPOV 1991 Act
- The EU is a member of UPOV as an inter-governmental organisation
- 24 out of 28 EU Member States are UPOV members
- The EU system co-exists with the national systems of those 24 EU Member States
- It is the applicant's choice: national or EU plant variety rights

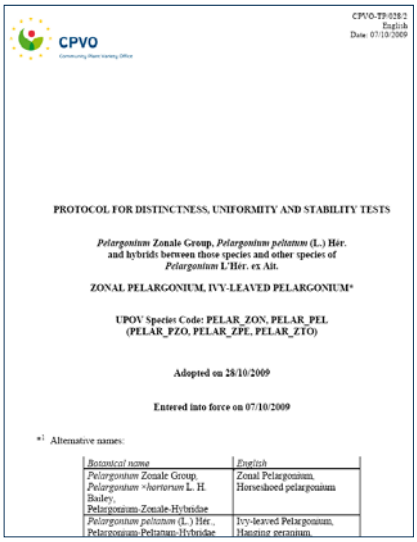
3. EU Technical Examinations

- The coordinates a network of examination offices
- About 30 entrusted examination offices carry out tests for distinctness, uniformity & stability of varieties
- An independent Quality Audit Service of CPVO audits the EOs every 3 years

[End of Annex IV and of document]

CPVO network of Examination offices in the EU

3. EU Technical Examinations



CPVO

CPVO-TP/028/2
English
Date: 07/10/2009

PROTOCOL FOR DISTINCTNESS, UNIFORMITY AND STABILITY TESTS

Pelargonium Zonale Group, *Pelargonium peltatum* (L.) Hér.
and hybrids between those species and other species of
Pelargonium L'Hér. ex Ait.

ZONAL PELARGONIUM, IVY-LEAVED PELARGONIUM*

UPOV Species Code: PELAR_ZON, PELAR_PEL
(PELAR_PZO, PELAR_ZPE, PELAR_ZTO)

Adopted on 28/10/2009

Entered into force on 07/10/2009

*) Alternative names:

Botanical name	*English*
Pelargonium Zonale Group, *Pelargonium ×hortorum* L. H. Bailey, Pelargonium-Zonale-Hybridae	Zonal Pelargonium, Horseshoed pelargonium
Pelargonium peltatum (L.) Hér., Pelargonium-Peltatum-Hybridae	Ivy-leaved Pelargonium, Hanging geranium

- Technical examinations carried out according to technical protocols based on UPOV guidelines.

4. Scope & Enforcement

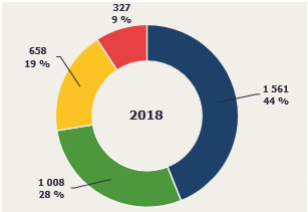
- use of protected material subject to authorization of the breeder
- The right holders enforce the rights

- Some aspects of enforcement:
  - ✓ regulated in European law (e.g. Infringement - Art. 94 Reg. 2100/94)
  - ✓ regulated in National law implementing the Directive on enforcement (2004/48/EC)
- National courts competent to deal with infringement cases

11

5. Details of CPVO fruit sector

- the fruit sector is the smallest in terms of number of applications (9% of the total number in 2018)



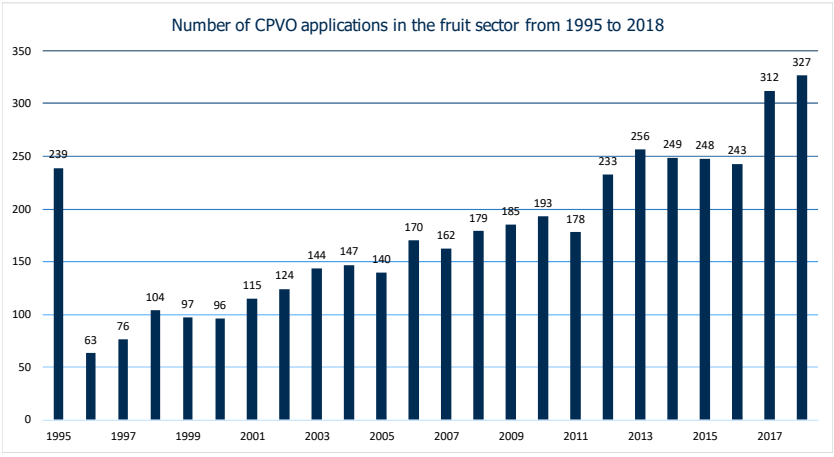
- Sector characterised by
  - ➢ multiannual testing
  - ➢ large living reference collections
  - ➢ the highest costs of the technical examination comparing to other sectors
  - ➢ special rules on postponement of testing due to specific phytosanitary requirements, effects of the opposite cycle and a particular rootstock

11 Entrusted EOs from the EU + MEXICO

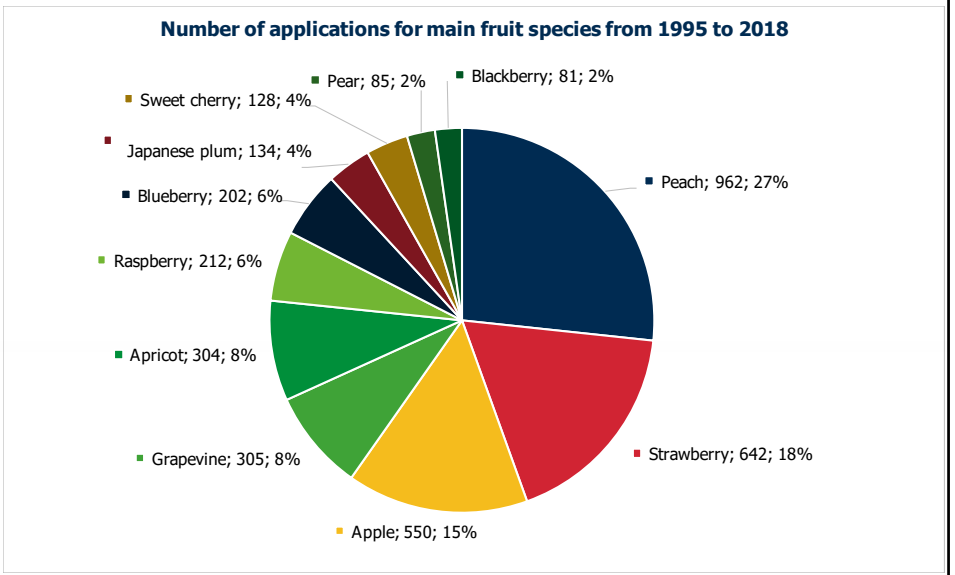
Bundessortenamt – GERMANY
Central Controlling and Testing Institute in Agriculture (UKZUP) – SLOVAKIA
Central Institute for Supervising & Testing in Agriculture (UKZUZ) – CZECH REPUBLIC
COBORU – POLAND
CREA – FRU – ITALY
CREA – VIT – ITALY
Direção Geral de Alimentação e Veterinária – PORTUGAL
GEVES – FRANCE
National Food Chain Safety Office – HUNGARY
Oficina Española de Variedades Vegetales – SPAIN
Servicio Nacional de Inspeccion y Certificacion de Semillas (SNICS) – MEXICO

Challenges

- Harmonization of the DUS testing amongst EOs
- Following on phytosanitary measures
- Reduction of costs of the DUS testing
- Organisation of testing for tropical crops
- Appeal cases



NB: Comparison 2018 with 2017 : + 4.8% applications



6. Final Remarks

- The CPVO:
  - Offers plant variety protection at a reasonable price
  - Reduces the administration for applicants & national authorities – resulting in efficiency gains
  - Allows close co-operation between CPVO and Member States on a technical level – increased sharing of resources

THANK YOU

[Annex V follows]

ANNEX V

PRESENTATION ON THE PLANT VARIETY PROTECTION IN THE EUROPEAN UNION
BY MS. SZILVIA MÁRKNÉ DEÁK (Ms.), DUS EXPERT, AGRICULTURAL GENETIC RESOURCES DIRECTORATE,
NATIONAL FOOD CHAIN SAFETY OFFICE (NÉBIH)

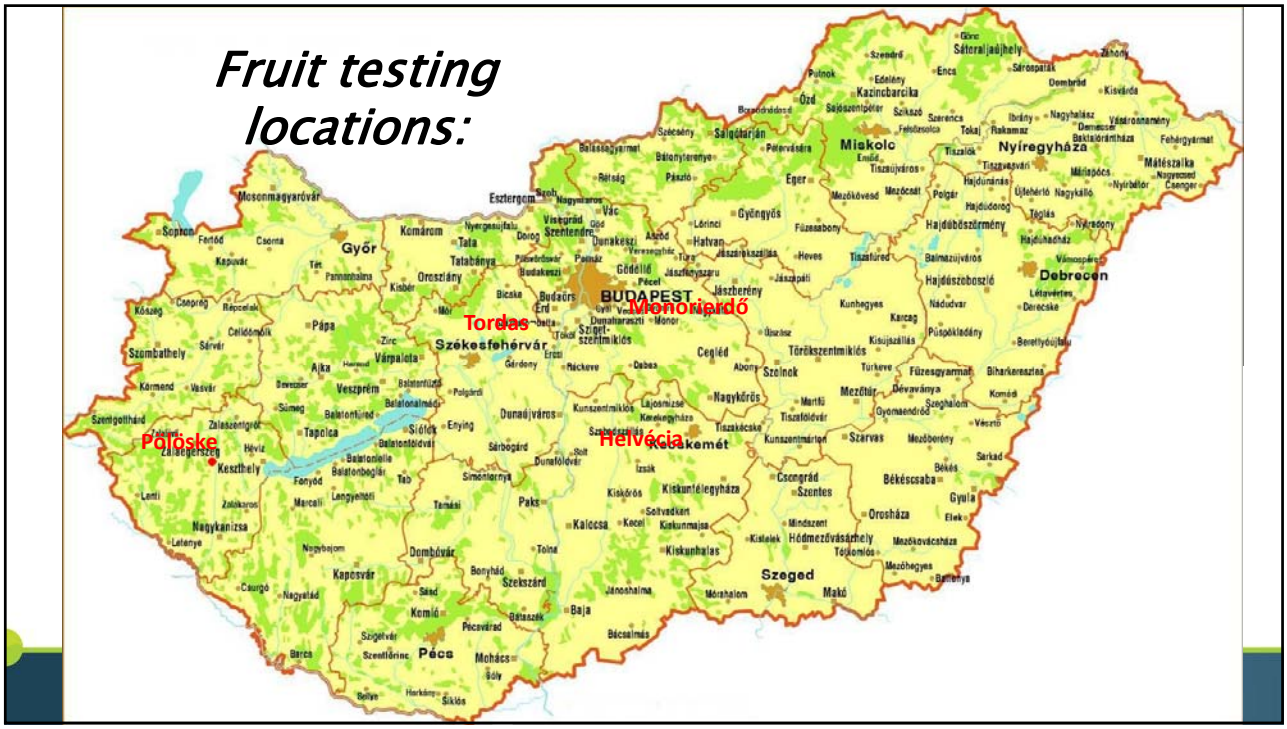
nébih
termőföldtől
az asztalig

The Pölöske testing station

Szilvia Márkné Deák

26. 06. 2019.

Fruit testing locations:



VARIETY TESTING FOR HORTICULTURAL CROPS

Pölöske: apple, pear, Japanese pear, sweet sherry, sour cherry, plum, Japanese plum , nut, chestnut, small fruits, grape, ornamentals

Tordas: apricot, peach, almond quince and medlar vegetables, ornamentals

Helvécia: grape, fruit landraces varieties

nébih | 125 éves a növényfajtakísérlet

Once upon a time….

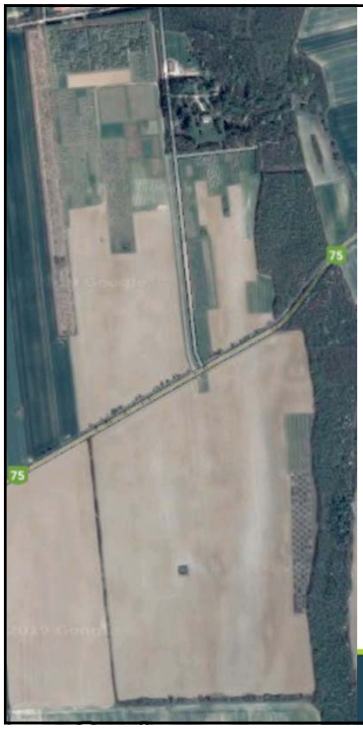
- From 1821 Pölöske was the property of Count István Széchenyi, the „Greatest Hungarian”
- His great grandson, Count Béla Teleki moved to Pölöske in 1932 and built the castle there
- He operated a model farm in Pölöske
- Count Teleki was an imporant figure of the farmer movements of his time
- 1936 – 1944: Comes (head) of Zala county
- Count Teleki emigrated in 1944 because of the war. He taught husbandry in Ascuncion, Paraguay and died there in 1969.

nébih

….and today

The main building of the testing station (south side)

nébih



The testing station has 80 hactares,
3 parts:
- the park around the main building and the „FK” field
- I-II field,
- other side of the road 75 called „külső kert” (external garden)

employees:
- 2 engineers
- 7 field hands

Fruit experiments: pomefruits

- **Apple** /Malus domestica/
  number of varieties: 229
  net area: 6400 m2
- **Pear** /Pyrus communis/
  number of varieties: 155
  net area: 17.300 m^2

nébih

Fruit experiments:

- **Sweet cherry** /Prunus avium/
  number of varieties: 135
  net area: 15.700 m^2
- **Sour cherry** /Prunus cerasus/
  number of varieties: 59
  net area: 6.300 m^2
- **Plum** /Prunus domestica/
  number of varieties: 111
  net area: 19.000 m^2

nébih

Fruit experiments: nuts

- **Wanut**/Juglans regia/
  number of varieties: 28
  net area: 25.500 m^2
- **Hazelnut**/Corylus avellana/
  number of varieties: 8
  net area: 900 m^2
- **Turkish hazelnut**/Corylus colurna/
  number of varieties: 2
  net area: 90 m^2

nébih

- **Chestnut**/Castanea sp./
  number of varieties: 21
  net area: 7.400 m^2

nébih

Small fruits

- **Raspberry** /Rubus idaeus/
  number of varieties: 34
  nett area: 1.100 m^2
- **Gooseberry** /Ribes uva-crispa/
  number of varieties: 11
  net area: 260 m^2

nébih

Small fruits

- **Blueberry**/Vaccinium sp./
  number of varieties: 7
  net area: 240 m^2
- **Buckthorn**/Hippophaë rhamnoides/
  number of varieties: 2
  net area: 80 m^2
- **Elder**/Sambucus nigra/
  number of varieties: 9
  net area: 240 m^2

nébih

Grape experiment

number of varieties: 312

net area: 10.500 m^2

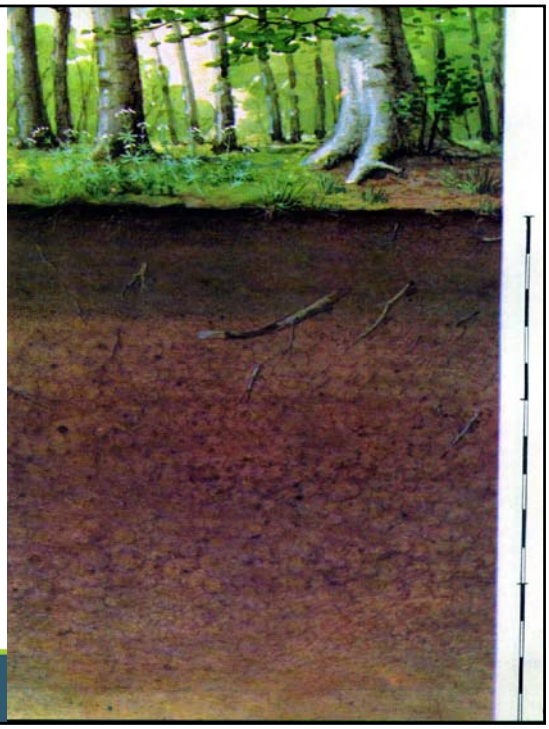
Ornamental experiments, from 2014.

- yellow honeysuckle (*Diervilla sp*.)
- flowering quince (*Chaenomeles japonica* L.)
- cherry laurel (*Prunus laurocerasus* L.)
- dogwood (*Cornus mas* L.)
- black eyed susan (Rudbeckia sp.)
- russian sage (Perowskia atriplicifolia)
- tupelo tree (Nyssa sylvatica)
- golden rain tree (Laburnum anagiroides)

Soil and climatic conditions

- ***Annual precipitation:*** 650-700 mm
- ***Annual mean temperature: 9,5 C***
- ***Moderately cold and moderately humid***
- ***Soil surface***: hilly
- ***Type of the soil***: clay brown forest soil,
- Sunshine duration: 1900 hours
- ***pH***: 4,2-5,8
- ***humus content***: good – very good
- ***P_2O_5 content***: very good
- ***K_2O content***: medium - good

nébih



Some pictures from the life of the testing station:

Some pictures from the life of the testing station:

Experiment installation

nébih

Some pictures from the life of the testing station:

Open days

Some pictures from the life of the testing station:

Fruit organoleptic judging

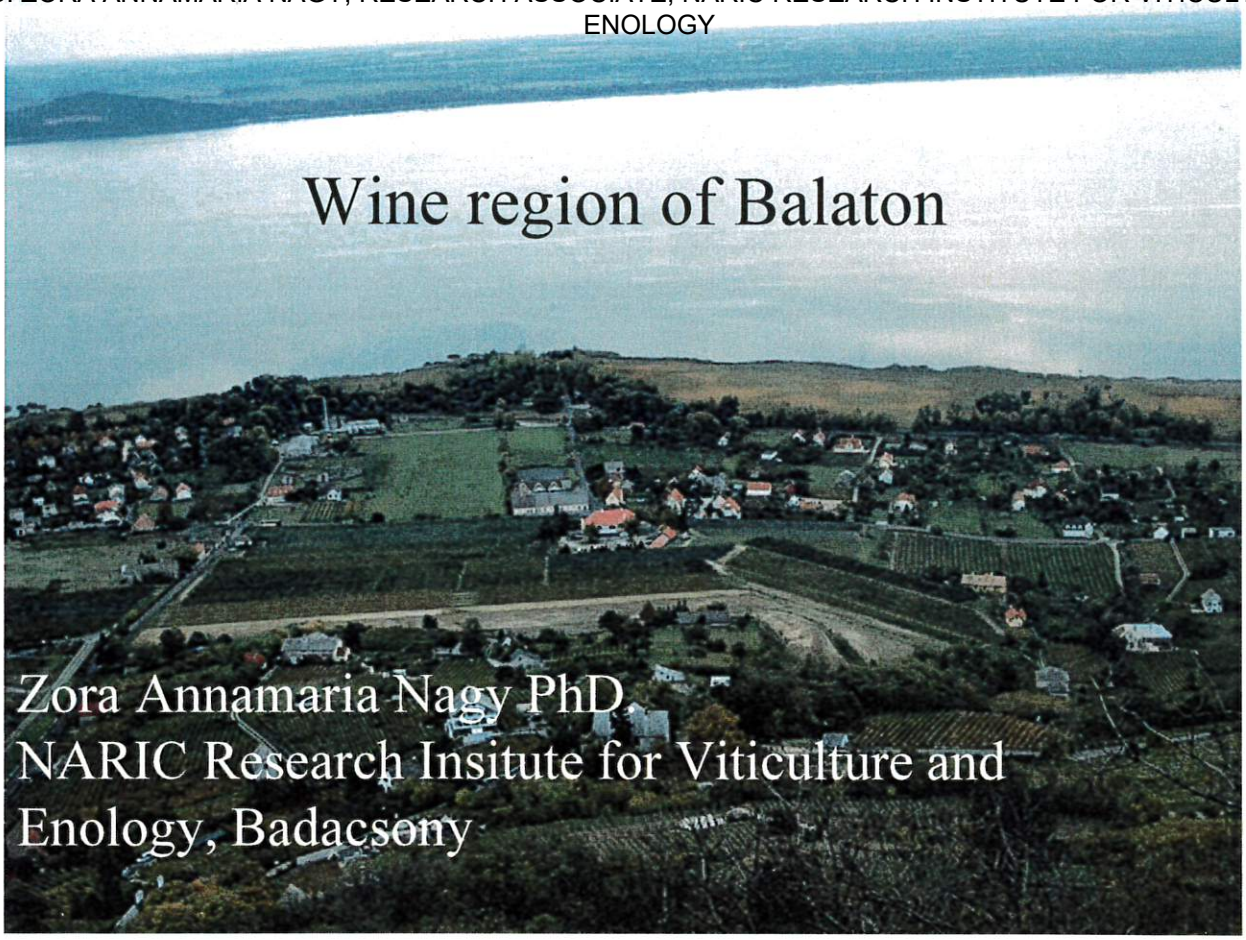
Some pictures from the life of the testing station:

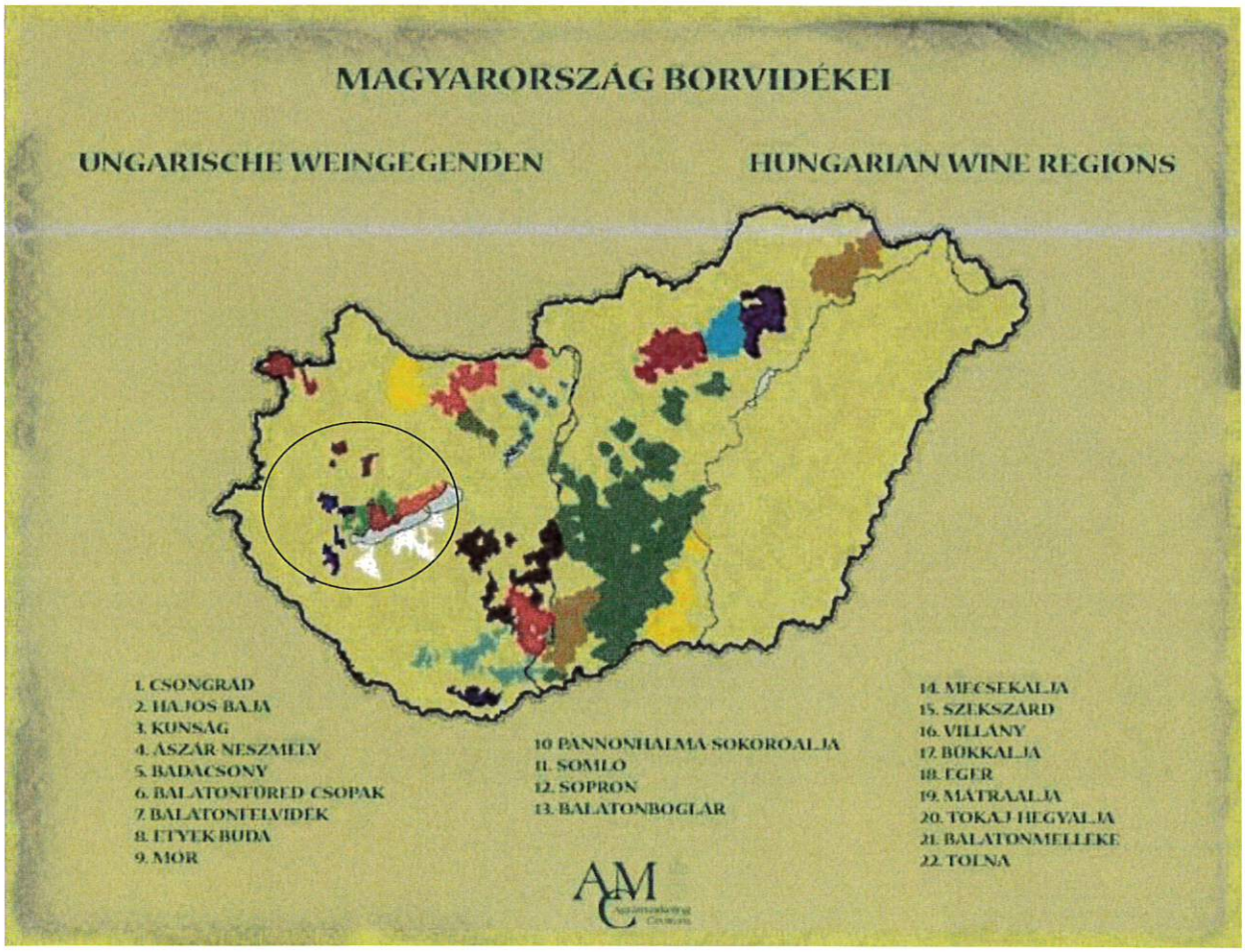
Monitoring visit

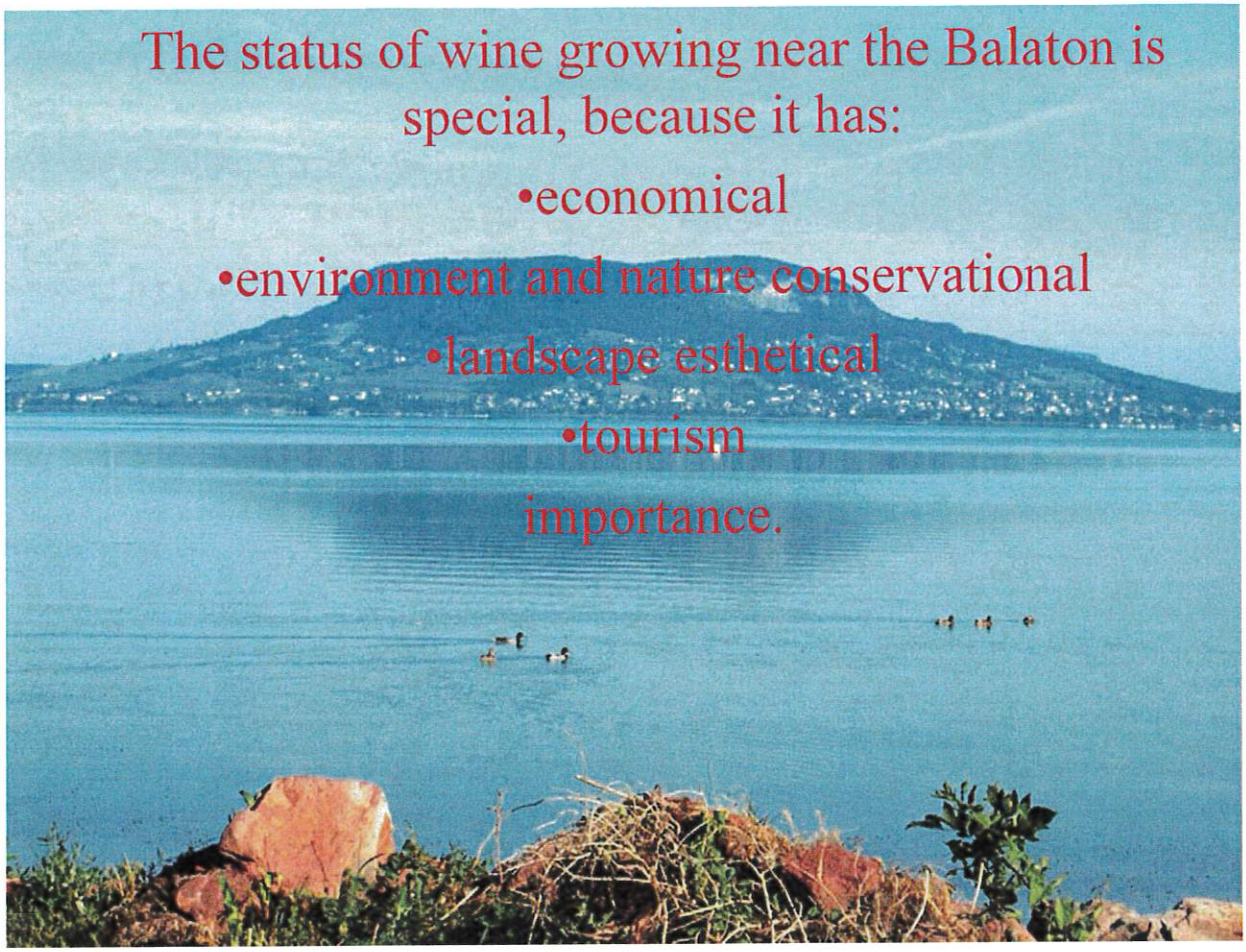
[Annex VI follows]

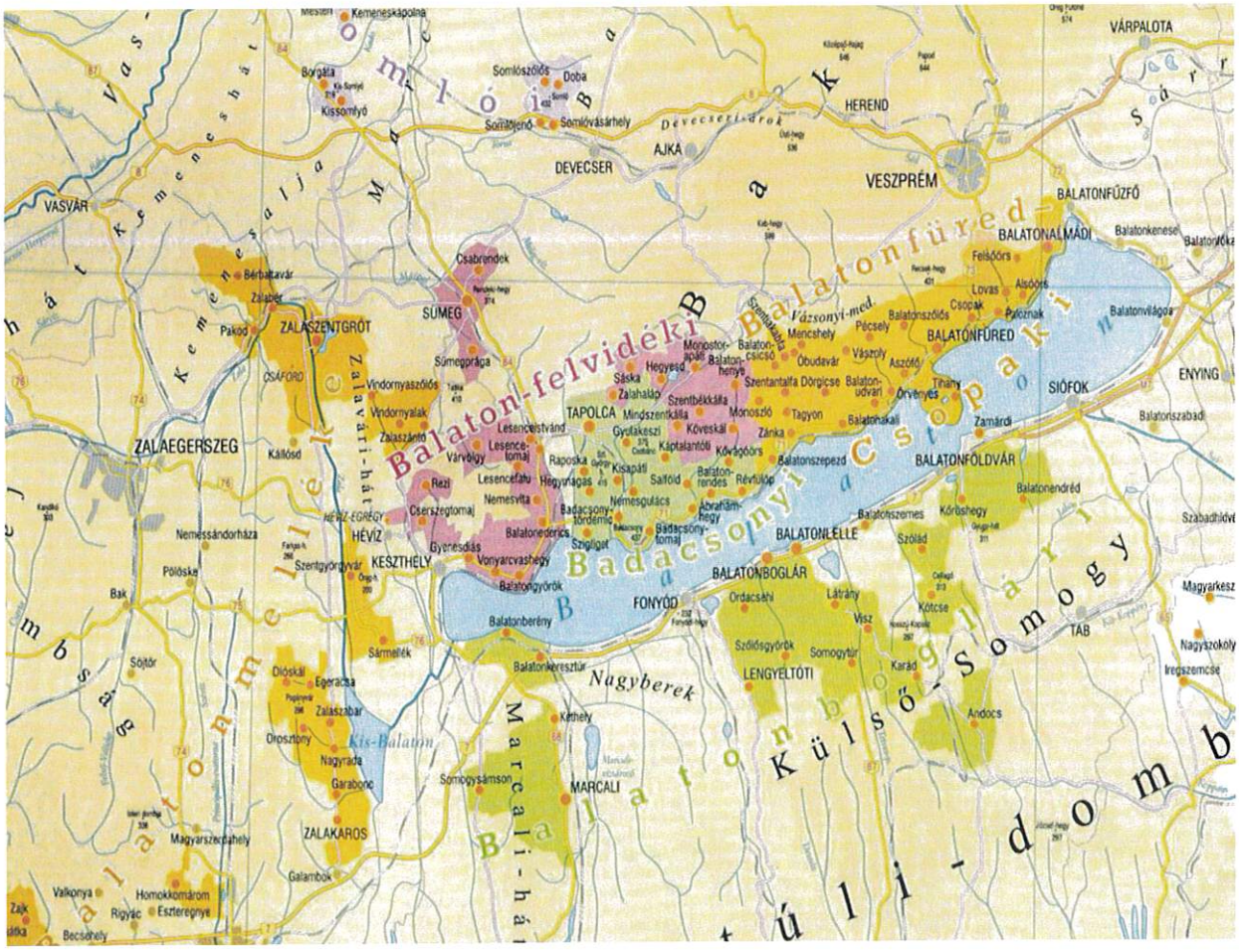
ANNEX VI

PRESENTATION ON THE WINE REGION OF BALATON
BY MS. ZORA ANNAMARIA NAGY, RESEARCH ASSOCIATE, NARIC RESEARCH INSTITUTE FOR VITICULTURE AND ENOLOGY



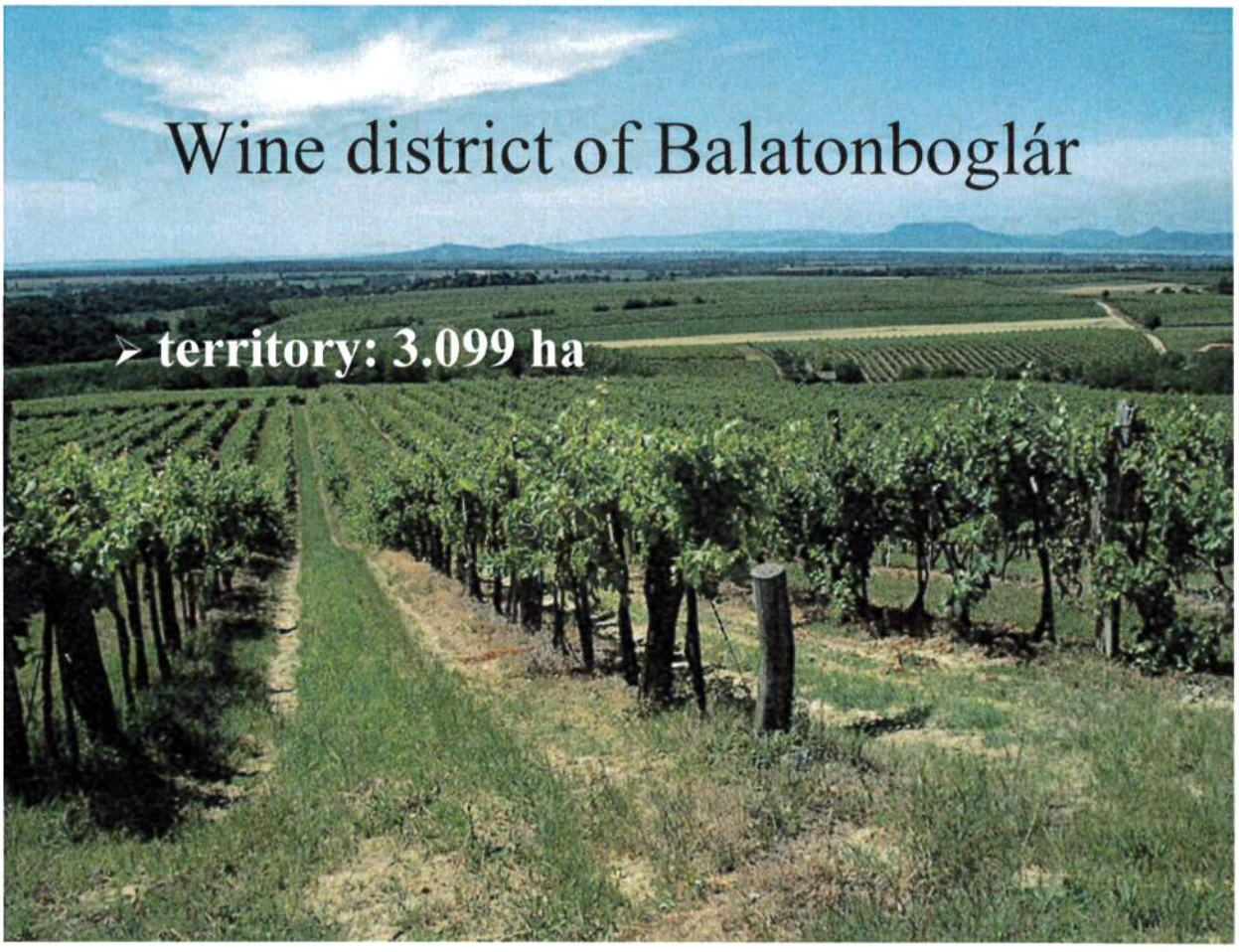


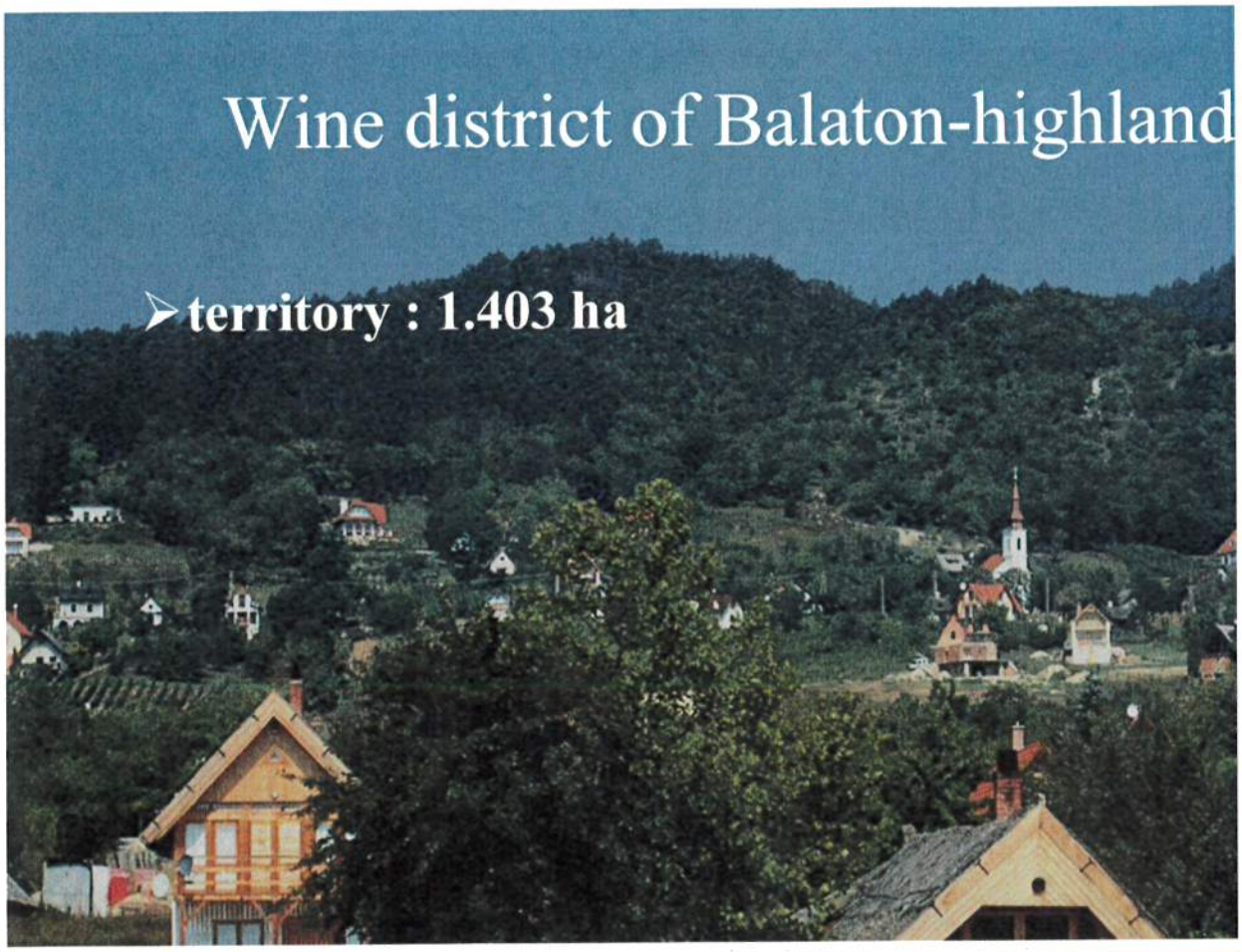

The status of wine growing near the Balaton is special, because it has:
•economical
•environment and nature conservational
•landscape esthetical
•tourism
importance.

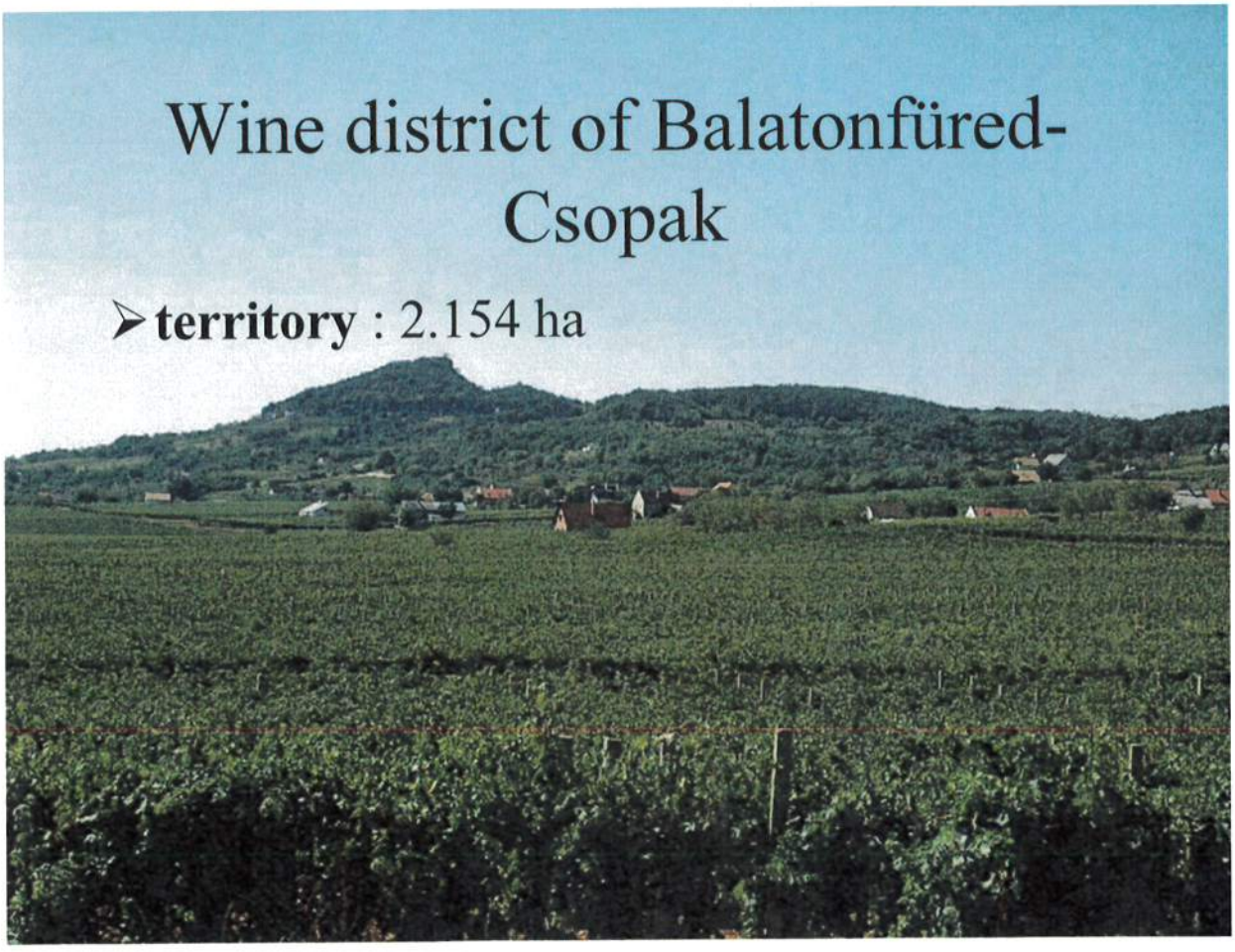

VÁRPALOTA
HEREND
VESZPRÉM
BALATONFÜZFŐ
BALATONALMÁDI
BALATONFÜRED
SIÓFOK
ENYING
DEVECSER
AJKA
VASVÁR
SÜMEG
ZALASZENTGRÓT
ZALAEGERSZEG
TAPOLCA
BALATONFÖLDVÁR
BALATONLELLE
BALATONBOGLÁR
FONYÓD
KESZTHELY
HÉVÍZ
MARCALI
LENGYELTÓTI
TAB
ZALAKAROS
Balaton-felvidéki
Badacsonyi
Balatonfüredi
Keszthelyi
Marcali-hát
Külső-Somogy

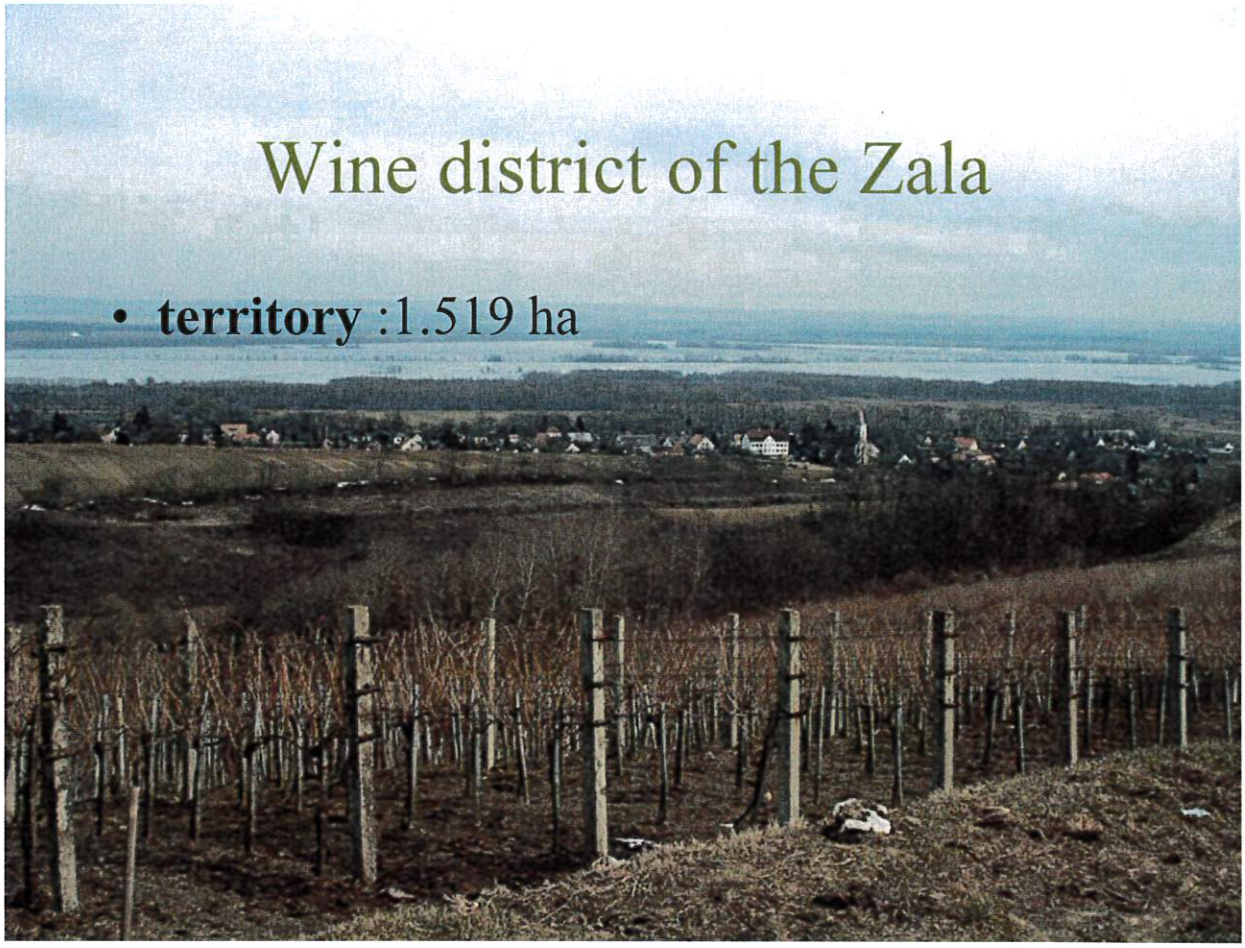
Wine districts of the Balaton region

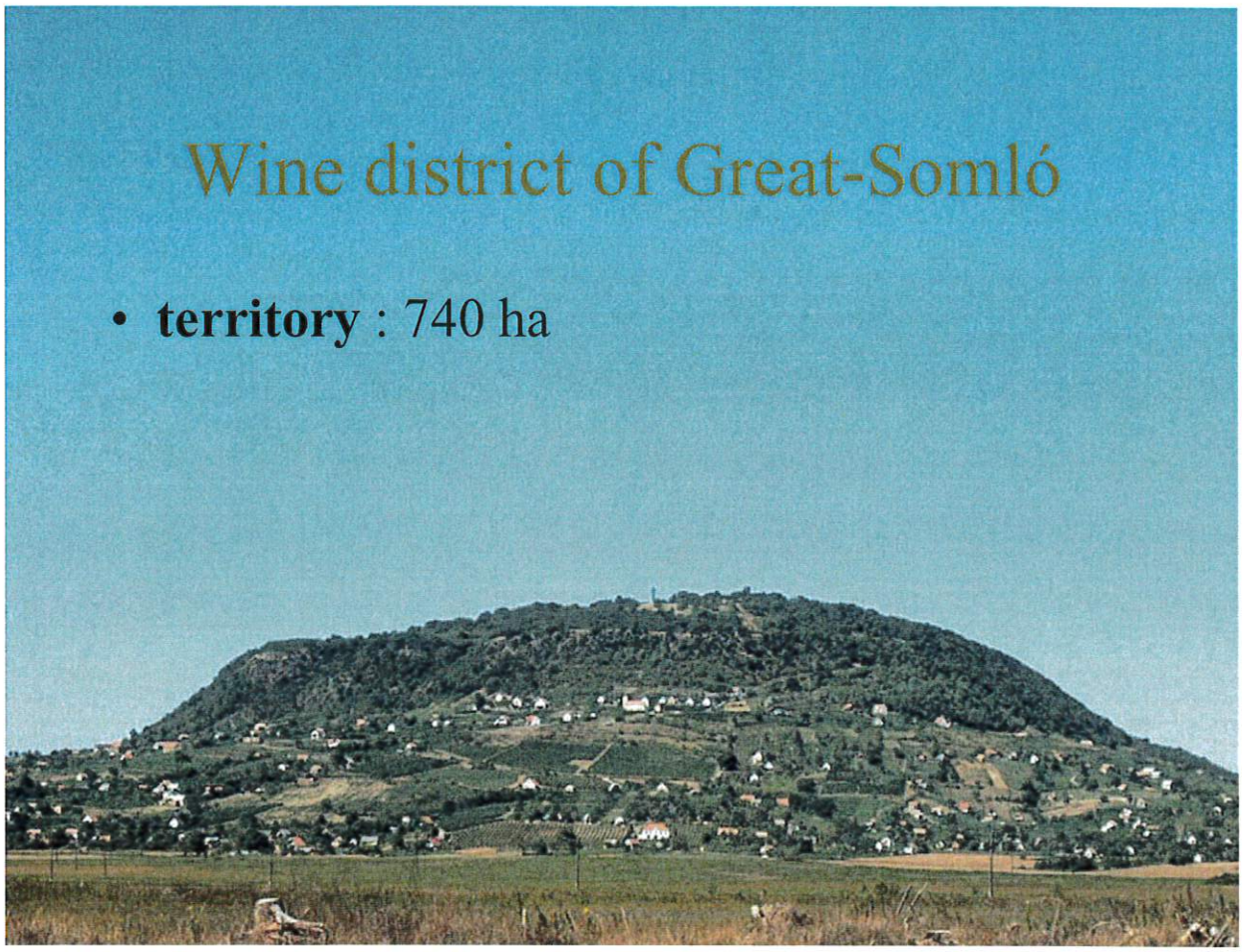
Balatonboglár
Balaton-highland
Badacsony
Balatonfüred-Csopak
Zala
Great-Somló

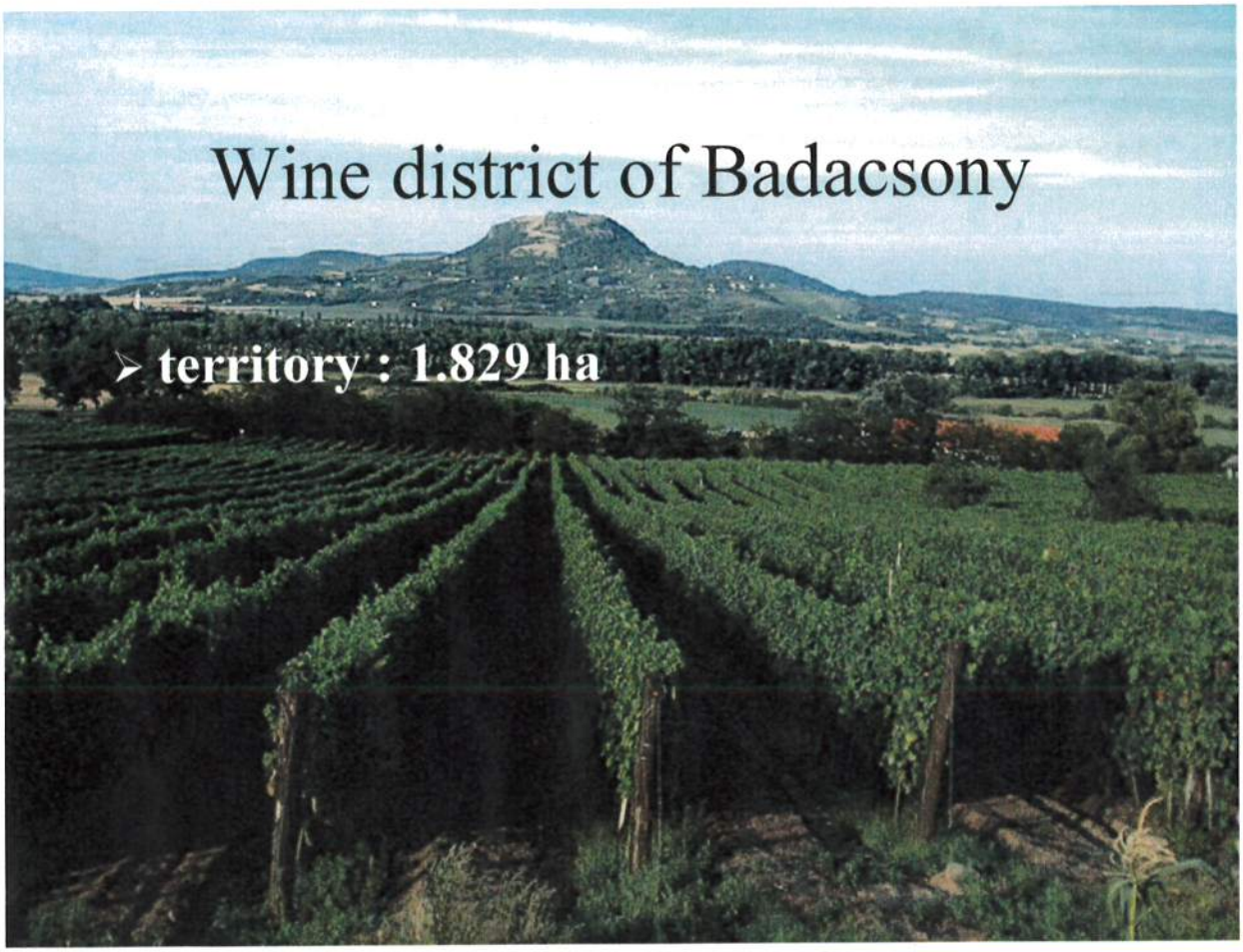



Wine district of Balaton-highland
➢ territory : 1.403 ha


Wine district of Balatonfüred-Csopak
➢ territory : 2.154 ha


Wine district of the Zala
• territory :1.519 ha


Wine district of Great-Somló
• territory : 740 ha

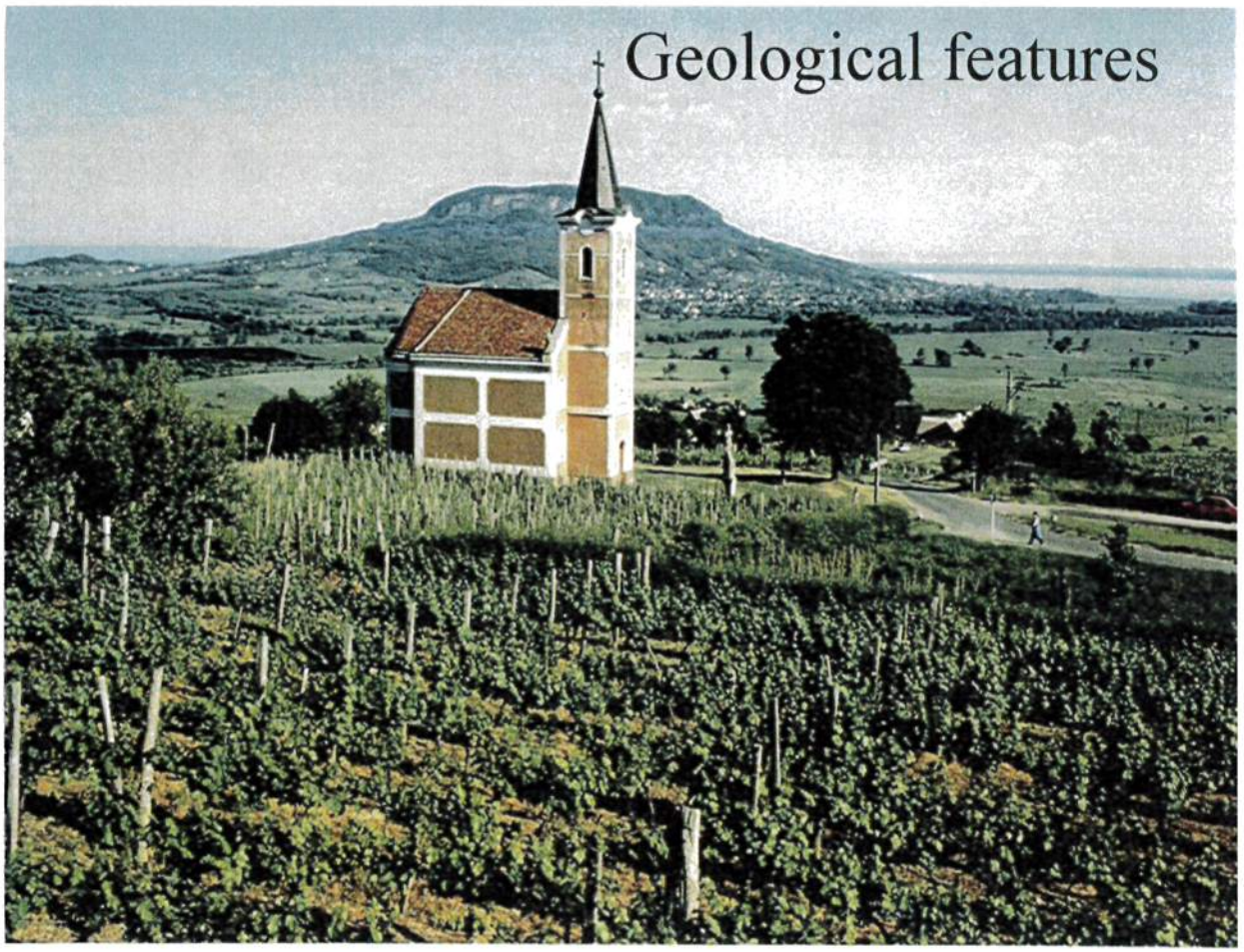


Some meteorological parameters, which are characteristic for the climate

- Sum of sunny hours: above 2000 h
- Yearly average temperature: 11,1 °C
- Yearly average rainfall: 600 mm

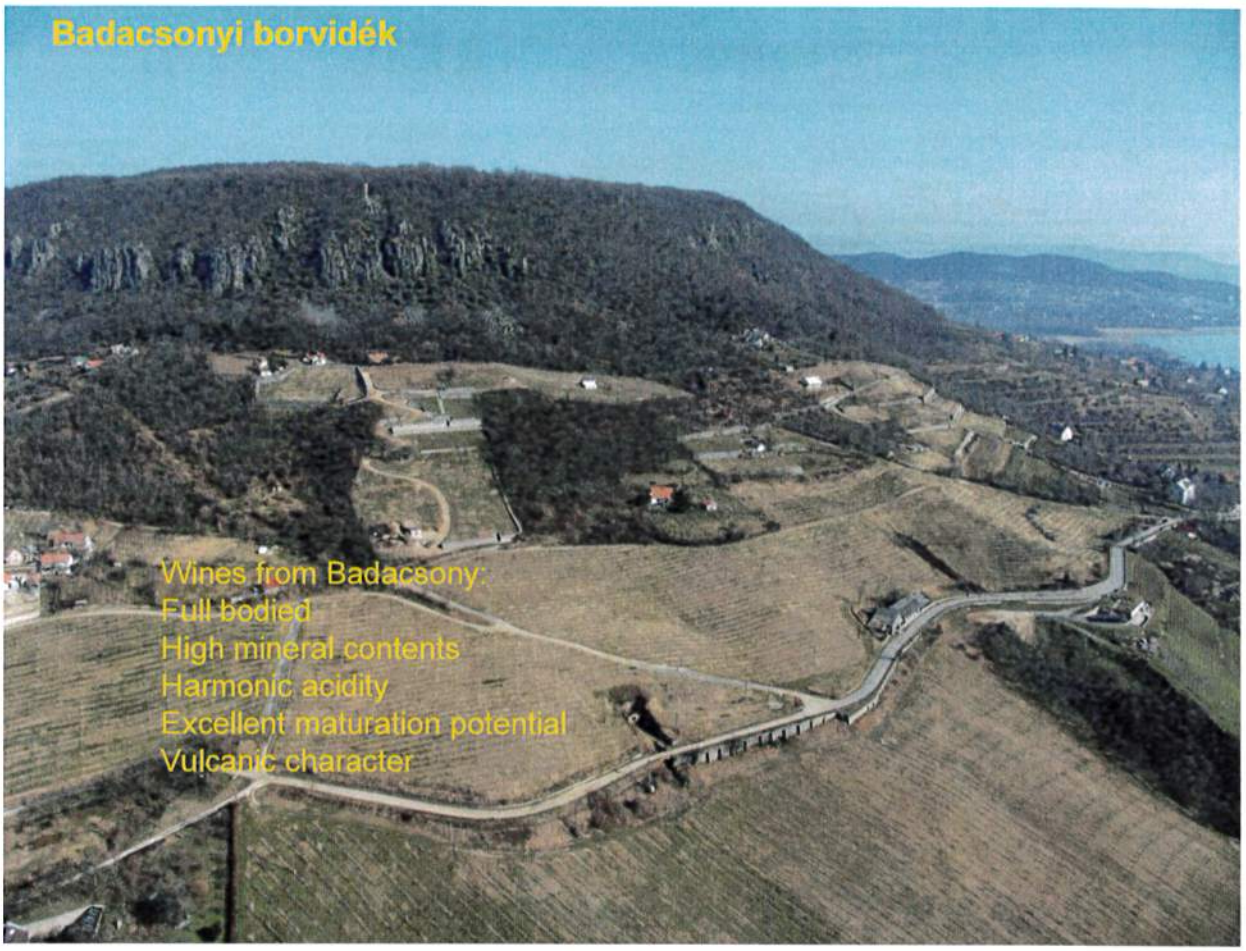
Sub-Mediterranean character


Sub-Mediterranean character


Geological features

Geological features
(just in cathchwords)

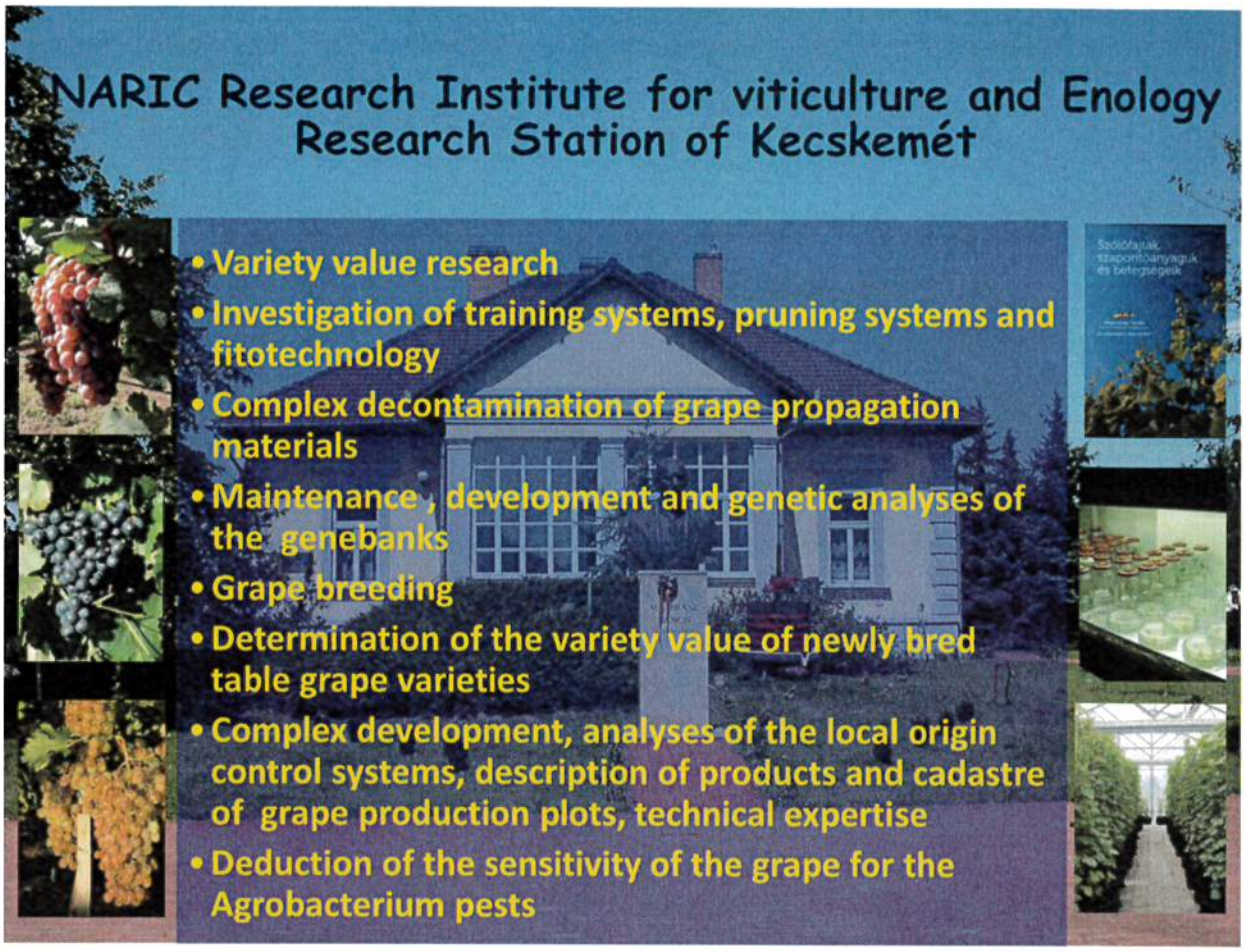
- Near Balatonfüred: limestone
- Near Csopak : red grit from perm
- Keszthely and the nearing: limestone and dolomite
- Badacsony and the nearing, the Káli basin and Tihany: basalt, pannon sand and pannon clay
- South-Balaton, Balaton-nearings: deposits from the pannon age, loess

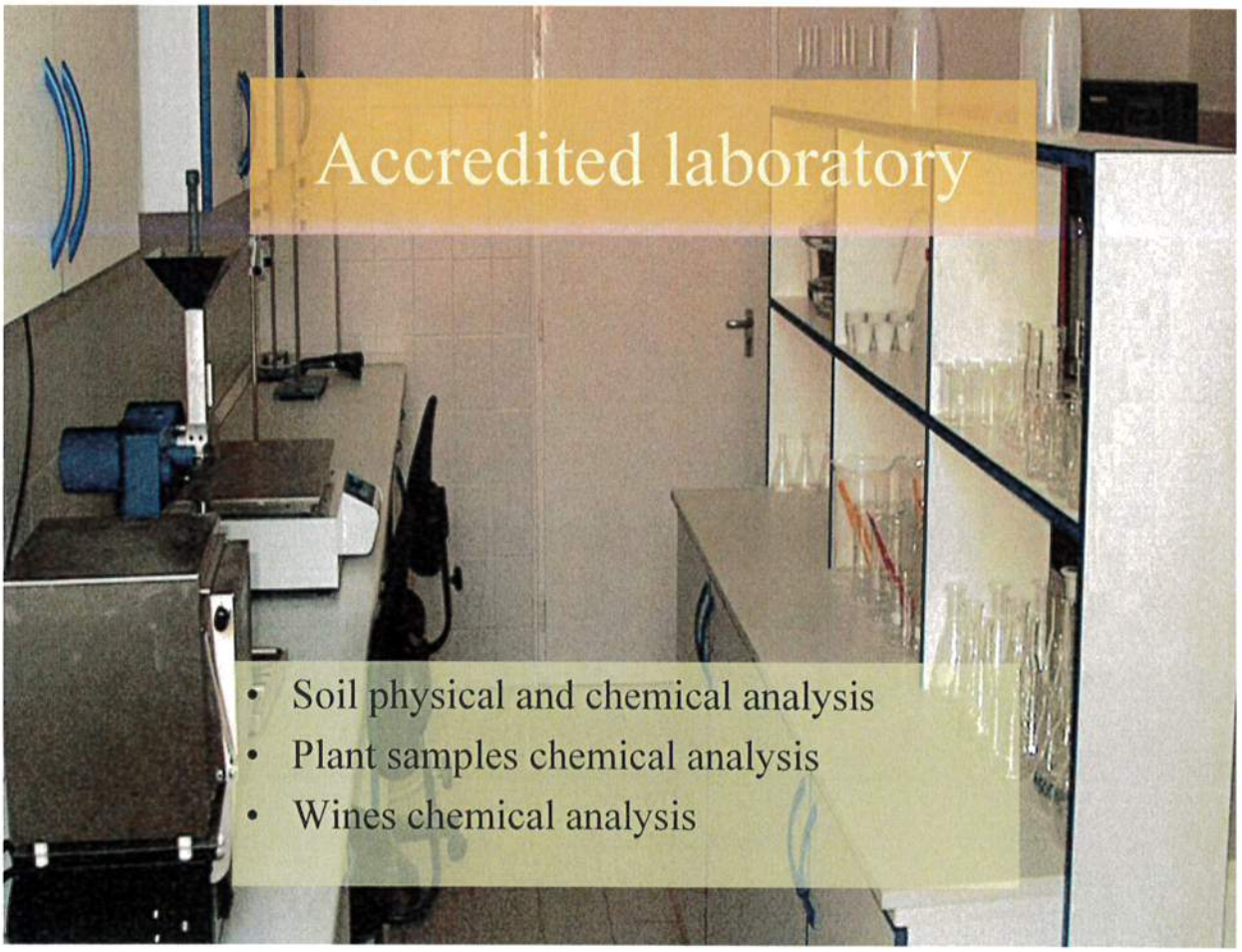

Badacsonyi borvidék
Wines from Badacsony:
Full bodied
High mineral contents
Harmonic acidity
Excellent maturation potential
Vulcanic character

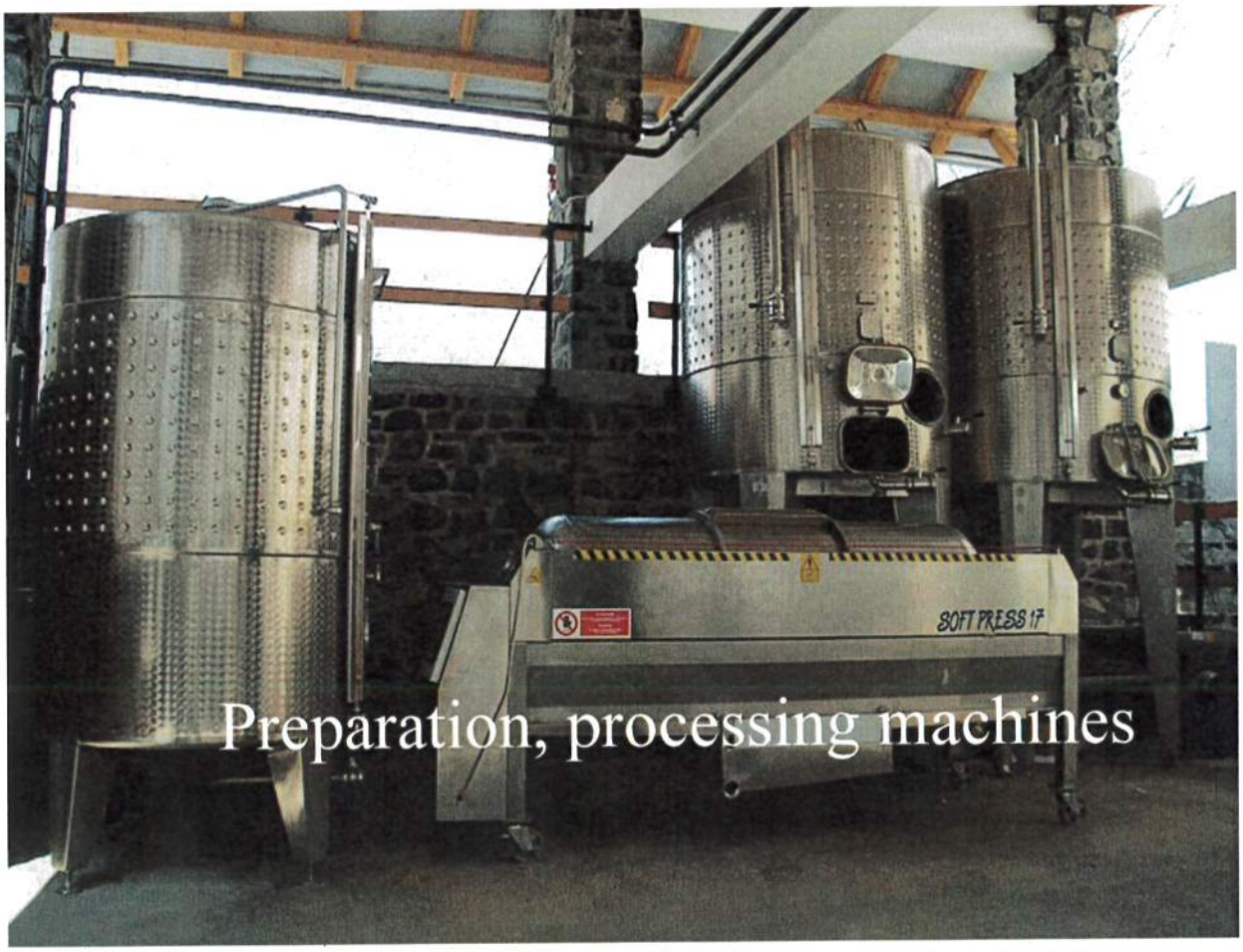

700 Employees
300 Researchers

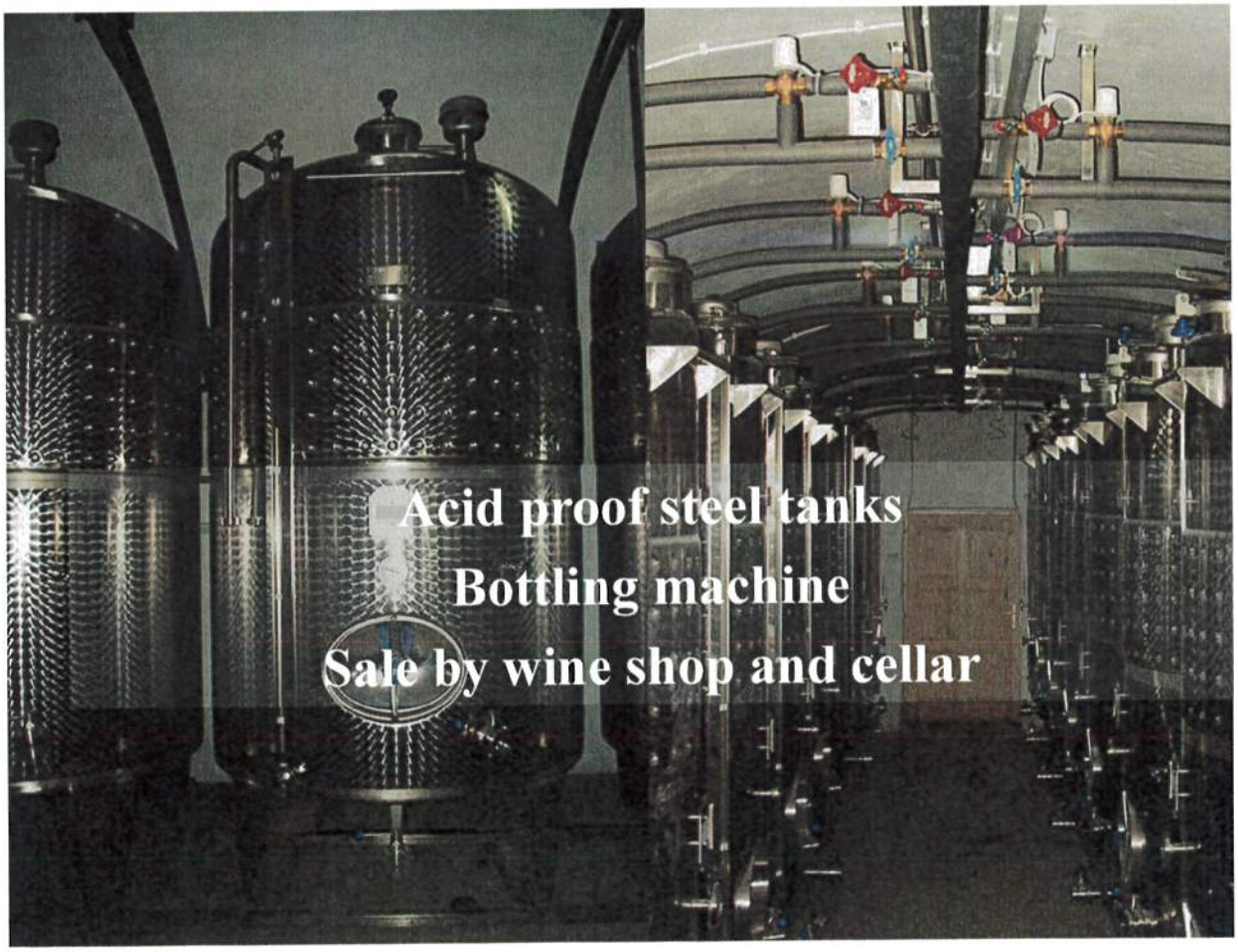
Institutes for NARIC

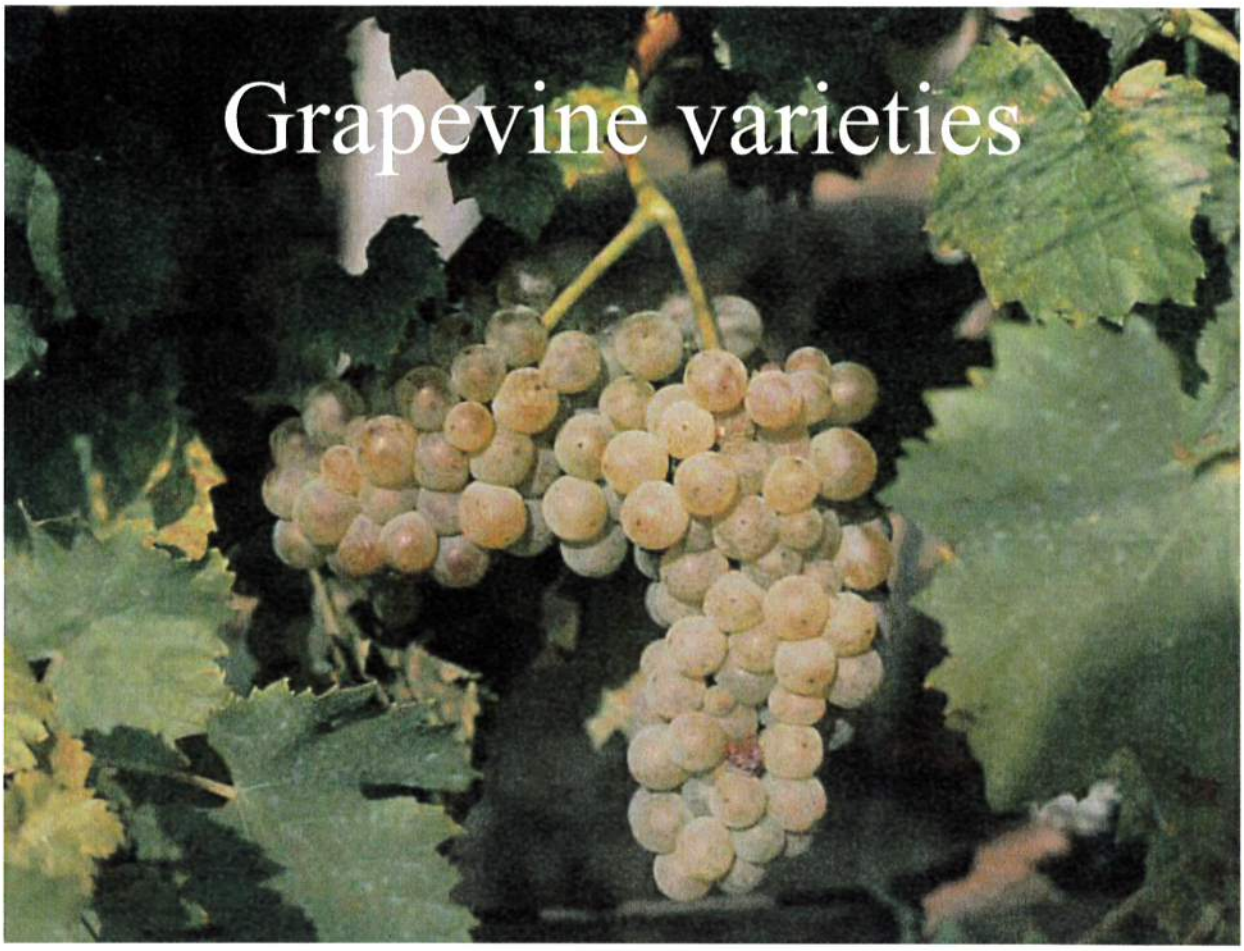
1. Agricultural Biotechnology Institute (ABC)
2. Research Institute for Viticulture and Enology (RIVE)
3. Research Institute for Animal Breeding, Nutrition and Meat Science (ATHK)
4. Research Institute for Fisheries and Aquaculture (HAKI)
5. Food Science Research Institute (FSRI)
6. Agro-Enviromental Research Institute (AERI)
7. Fruitculture Research Institute (FRI)
8. Forest Research Institute (ERTI)
9. Institute of Agricultural Engineering (MGI)
10. Research Department of Irrigation and Water Management Profile Description
11. Vegetable Crop Research Department (VCRD)


NARIC Research Institute for viticulture and Enology
Research Station of Kecskemét
• Variety value research
• Investigation of training systems, pruning systems and fitotechnology
• Complex decontamination of grape propagation materials
• Maintenance , development and genetic analyses of the genebanks
• Grape breeding
• Determination of the variety value of newly bred table grape varieties
• Complex development, analyses of the local origin control systems, description of products and cadastre of grape production plots, technical expertise
• Deduction of the sensitivity of the grape for the Agrobacterium pests

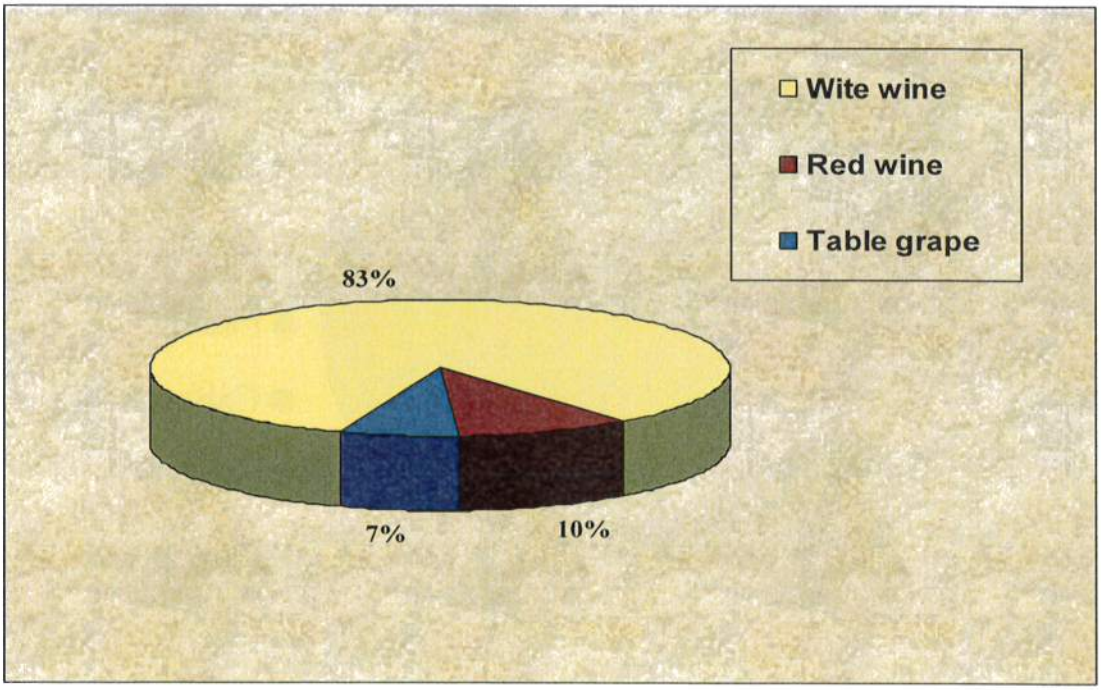

Accredited laboratory
• Soil physical and chemical analysis
• Plant samples chemical analysis
• Wines chemical analysis


SOFT PRESS 17
Preparation, processing machines

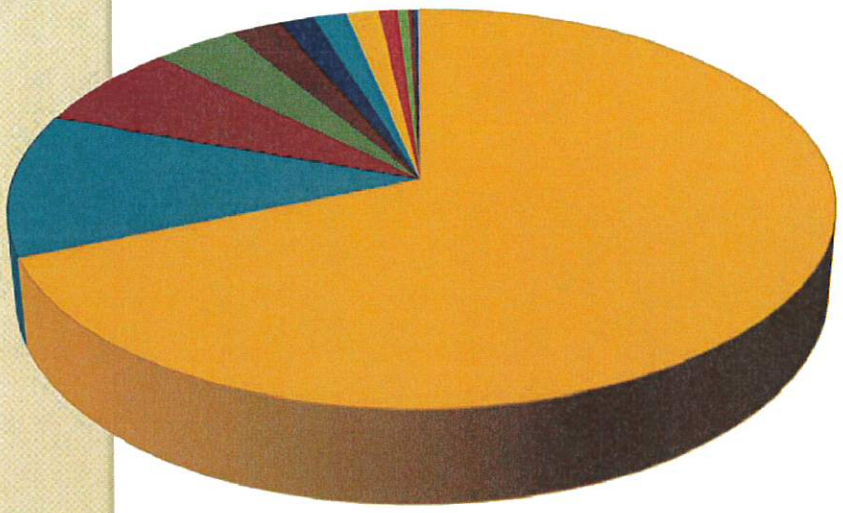

Acid proof steel tanks
Bottling machine
Sale by wine shop and cellar



Variety-association in the Balaton region, described by the territory of the variety-groups

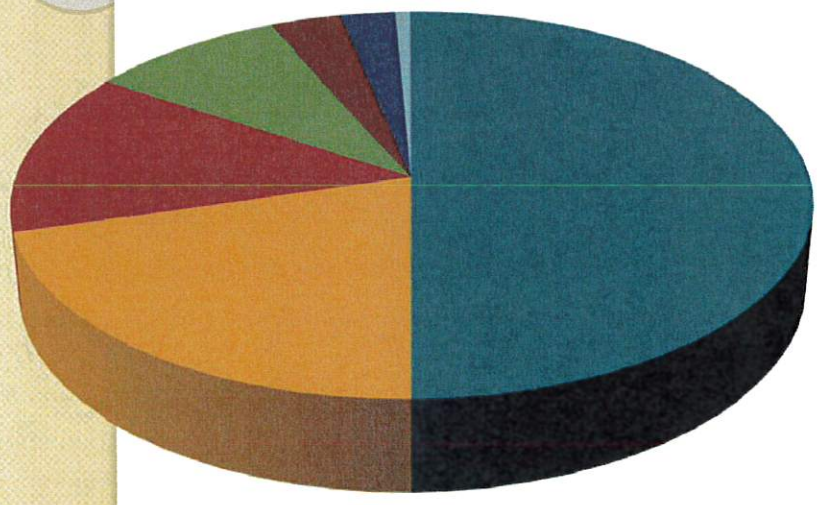


White varieties



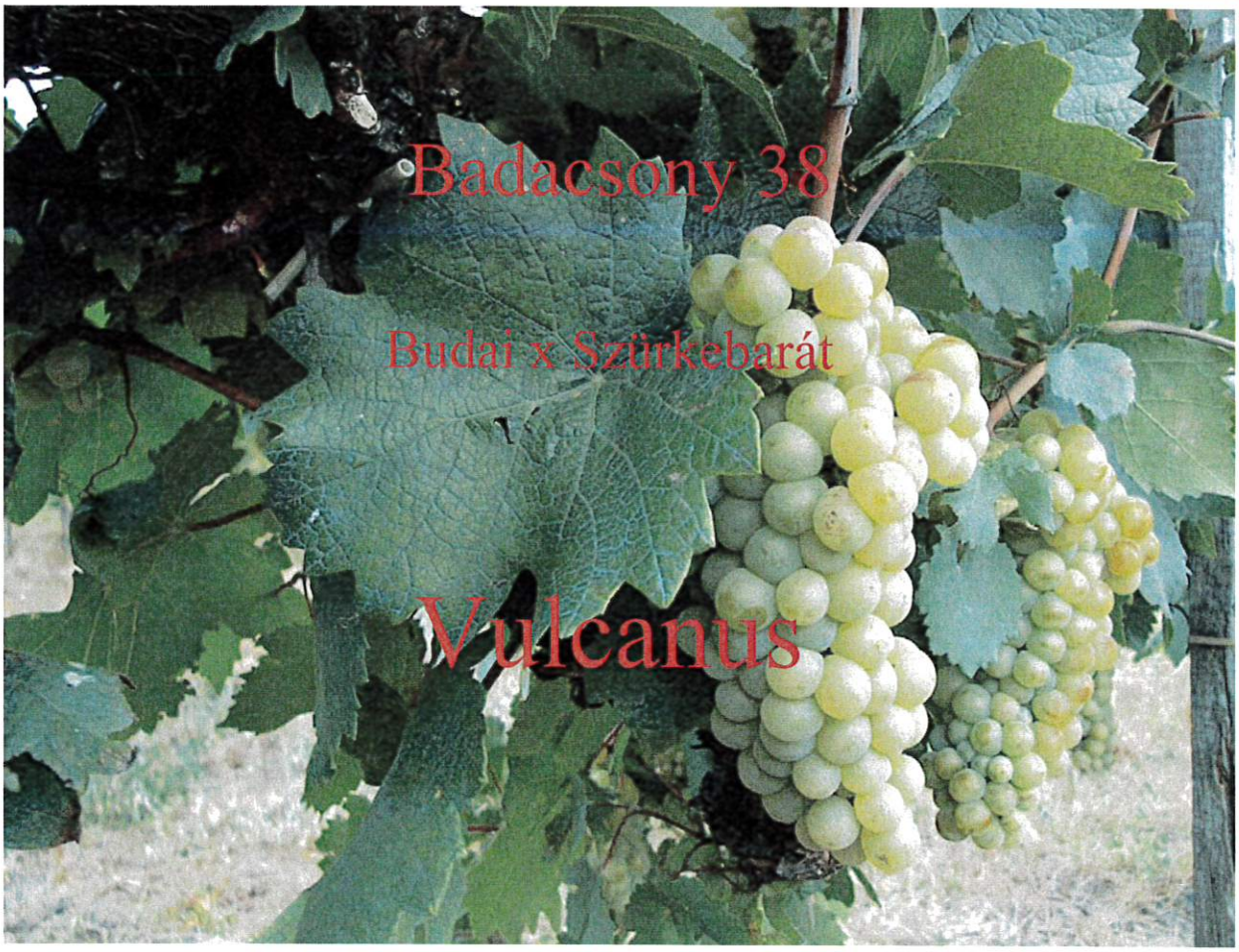
- Olasz rizling
- Szürkebarát
- Chardonnay
- Sauvignon
- Rizlingszilváni
- Zöld vetelini
- Ottonel muskotály
- Irsai Olivér
- Tramini
- Zenit
- Rajnai rizling
- Chasselas
- Sárga muskotály
- Királyleányka

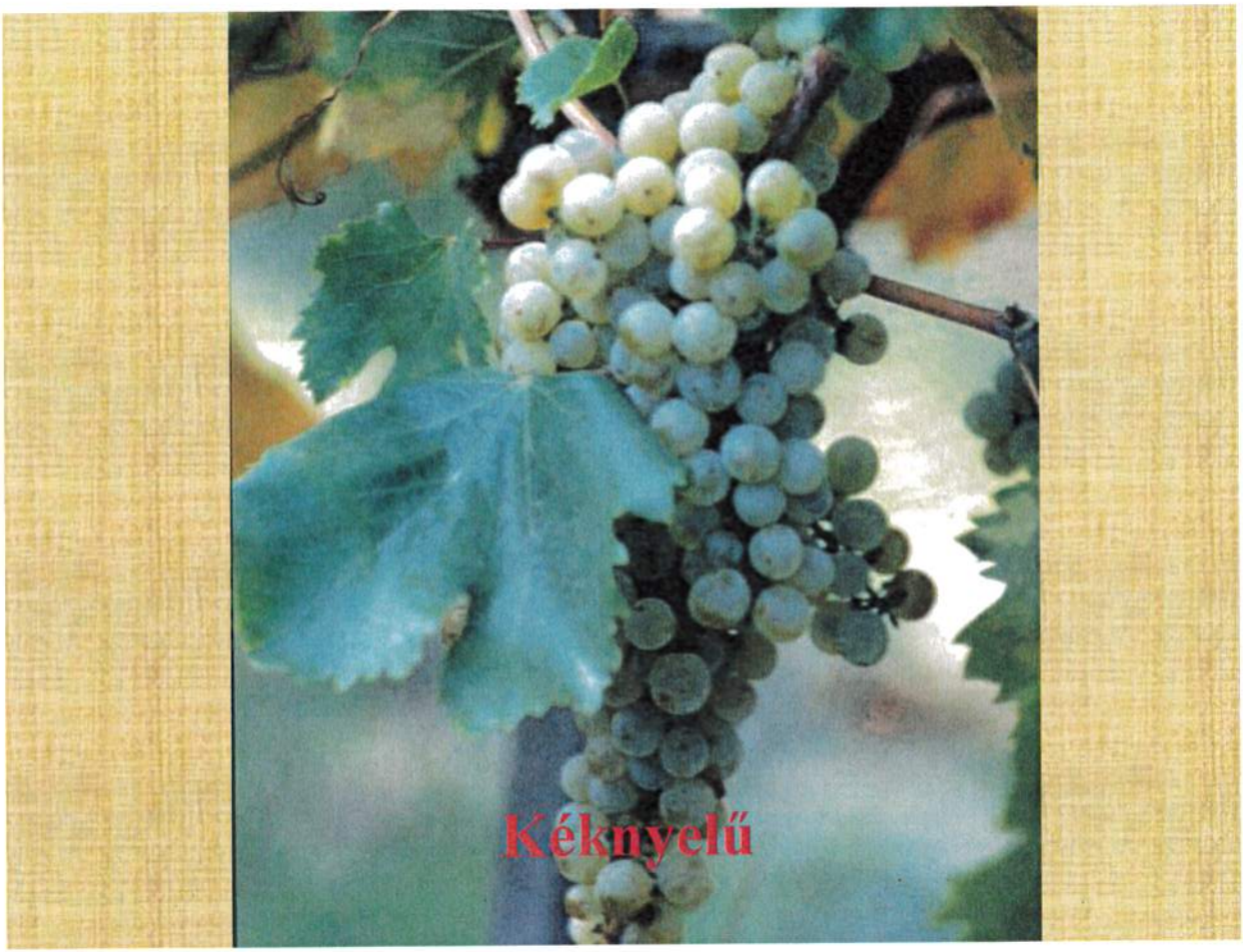
Red varieties

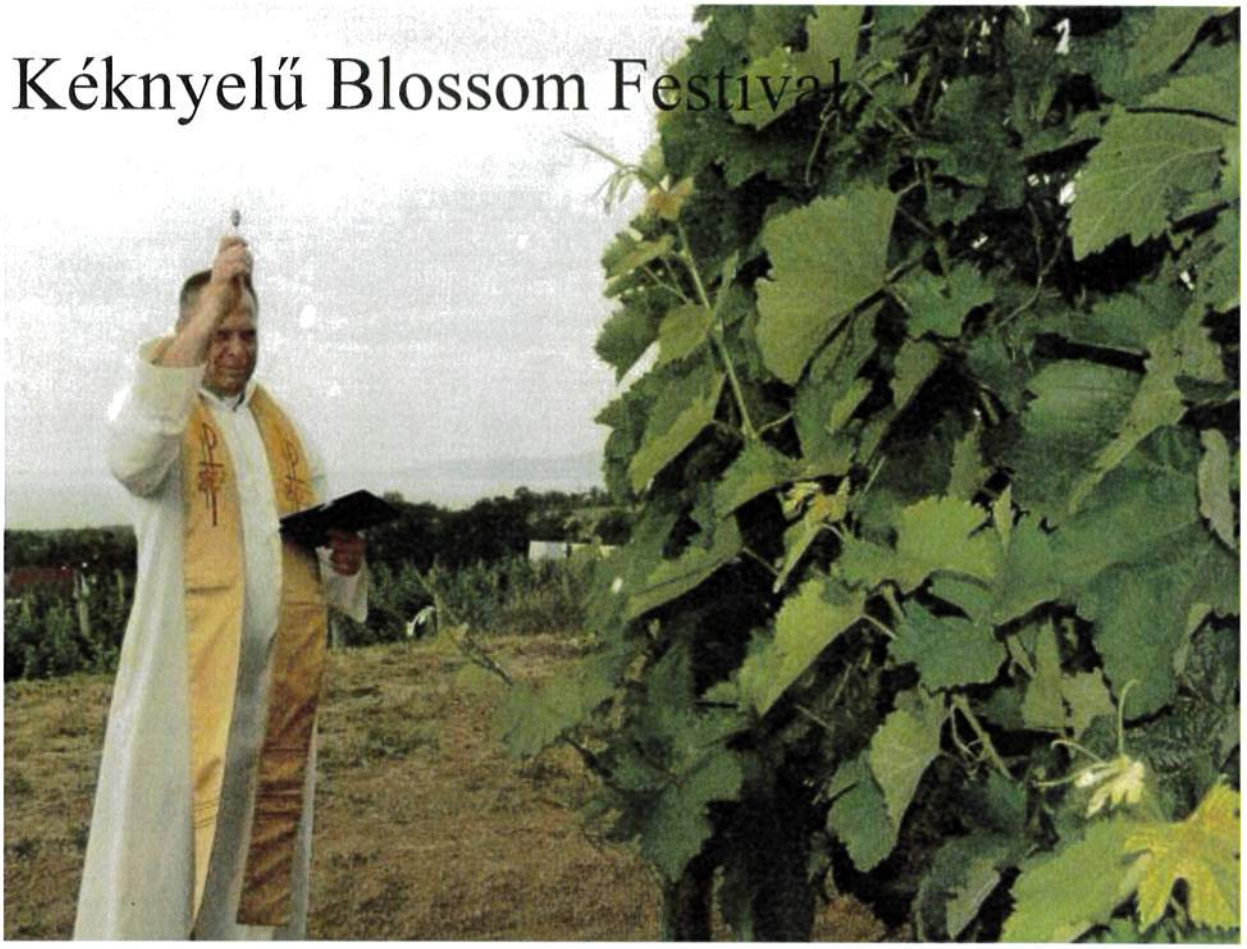


- Pinot noir
- Cabernet sauvignon
- Kékfrankos
- Merlot
- Cabernet franc
- Syrah
- Kékoportó

Varieties	Vintage	Alcohol (V/V%)	Titratable acidity (g/l)	Sugar (g/l)
Vulcanus	2017	12,5	6,2	0,8
Kéknyelű	2018	12	5,8	1
Olasz rizling (Italien riesling)	2016	14	5,8	2,1
Zefír-Zenit	2018	12,5	5	0,7
Zeus	2018	15,1	6,3	11
Rózsakő	2018	13,8	6,6	45



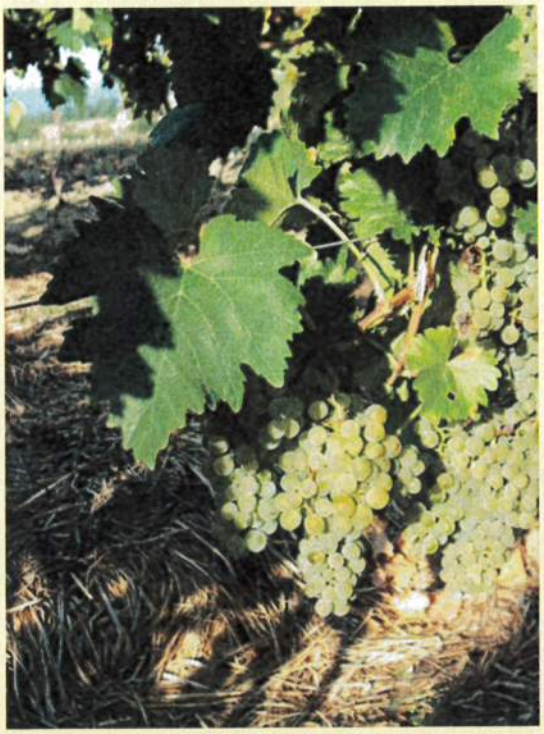

Kéknyelű


Kéknyelű Blossom Festival


Olasz rizling B20/7
Olasz rizling B 20/16
Olasz rizling B 14/14
Olasz rizling B 5/8

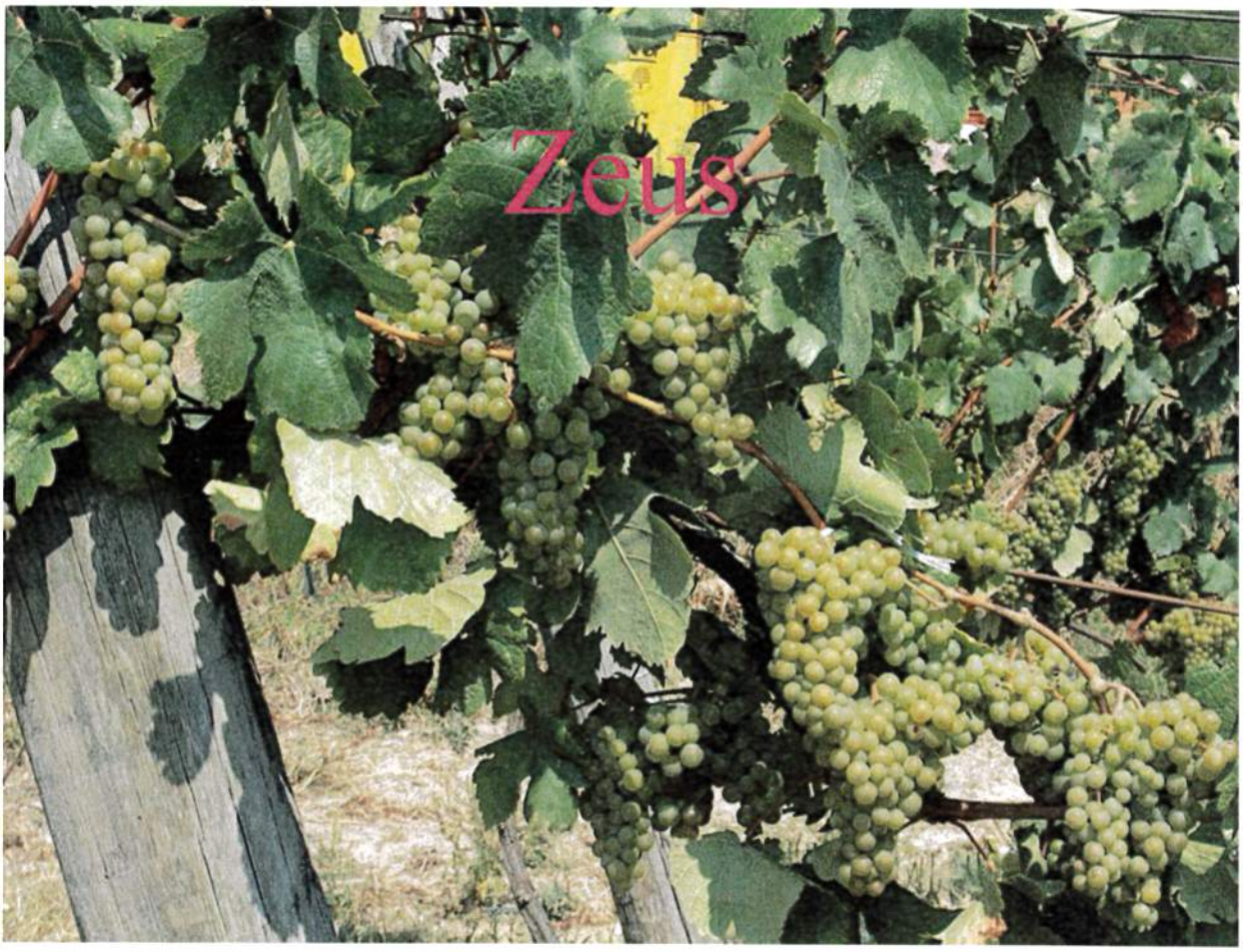
ZENIT (Badacsony 7)

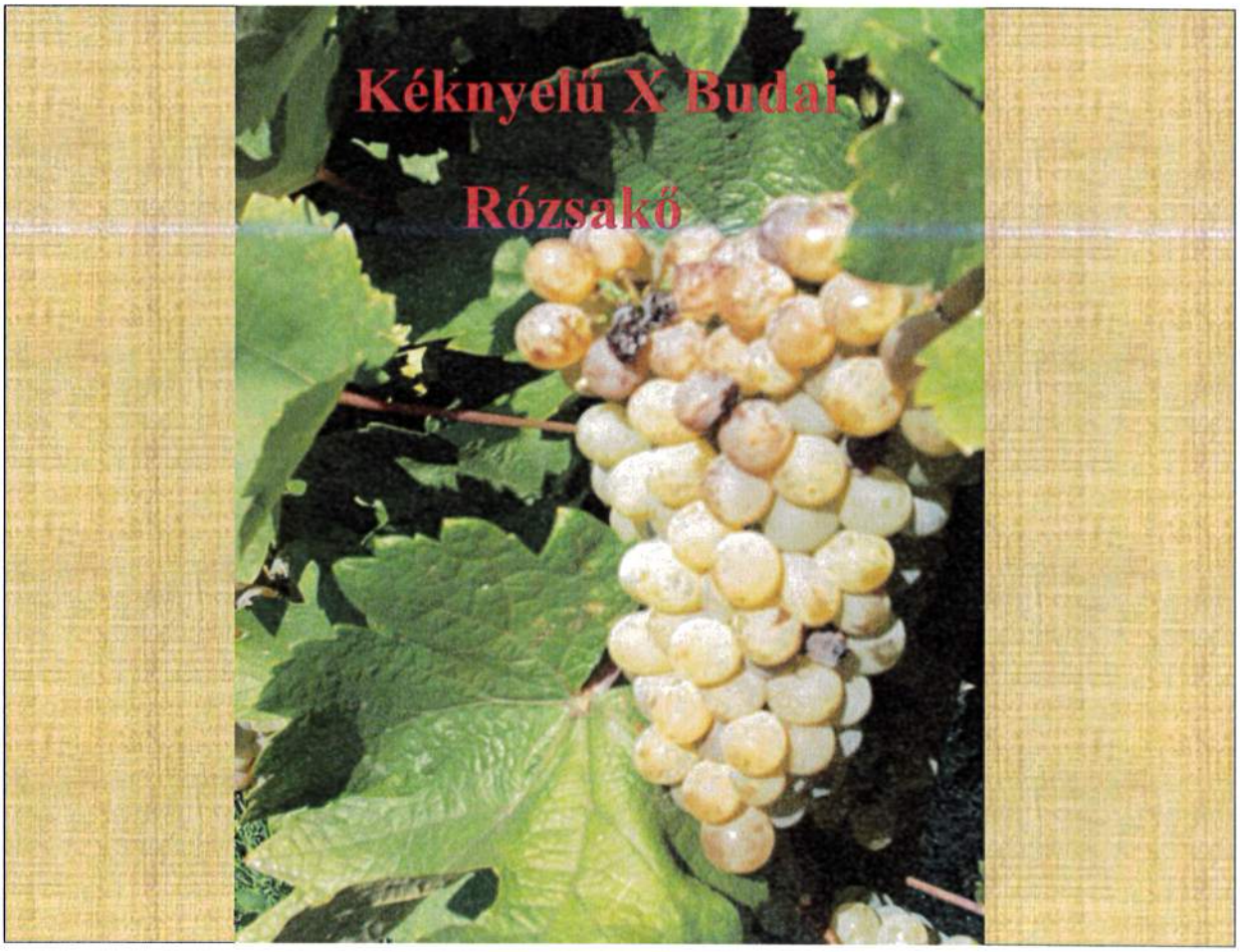
Ezerjó x Bouvier



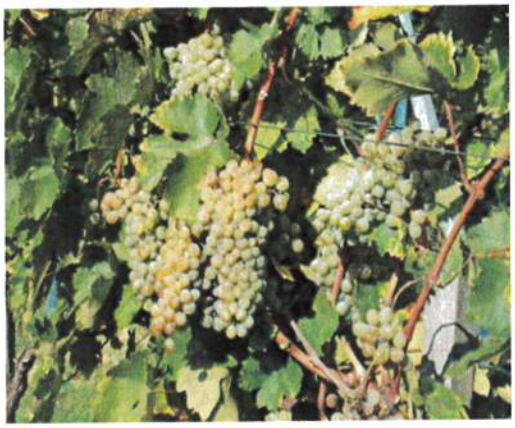
ZEFÍR

Hárslevelű X Leányka??


Zeus


Kéknyelű X Budai
Rózsakő

Rózsakő and the Legend



Wine shop

[Annex VII follows]

ANNEX VII

LIST OF LEADING EXPERTS

DRAFT TEST GUIDELINES TO BE SUBMITTED TO THE TECHNICAL COMMITTEE IN 2019

All requested information to be submitted to the Office of the Union

by August 9, 2019

Species	Basic Document(s)	Leading expert(s)
Oranges (*Citrus* L. - Group 2) (Partial revision: Characteristics 26, 56, 64, 81, 83)	TG/202/1 Rev., TWF/50/7	Ms. Nuria Urquía Fernández (ES)
Pummelo (Grapefruit and) (*Citrus* L. - Group 4) (Partial revision: Characteristics 30, 50, 63, 65, 66, 81)	TG/204/1 Rev., TWF/50/8	Ms. Nuria Urquía Fernández (ES)

DRAFT TEST GUIDELINES TO BE DISCUSSED AT TWF/51
(* indicates possible final draft Test Guidelines)

(Guideline date for Subgroup draft to be circulated by Leading Expert: March 27, 2020
Guideline date for comments to Leading Expert by Subgroup: April 24, 2020)

New draft to be submitted to the Office of the Union
May 22, 2020

Species	Basic Document(s)	Leading expert(s)	Interested experts (States/Organizations) [1]
Apple (fruit varieties) (Revision) (*Malus domestica* Borkh.)	TG/14/10(proj.2)	Mr. Erik Schulte (DE)	AU, BR, CA, CL, CN, CZ, FR, HU, JP, KR, MX, NL, NZ, PL, QZ, RU, ZA, CIOPORA, Office
*Apricot (*Prunus armeniaca* L.) (Revision)	TG/70/5(proj.3)	Mr. Zsolt Szani (HU)	AU, BG, CN, CZ, ES, FR, HU, IL, IT, JP, KR, MA, NZ, PL, QZ, RO, CIOPORA, Office
Argania (*Argania spinosa* (L.) Skeels)	TG/ARGAN(proj.4)	Ms. Ibtihaj Belmehdi (MA)	IL, Office
Date Palm (*Phoenix dactylifera*)	TG/PHOEN_DAC (proj.1)	Mr. Ben-Zion Zaidman (IL)	BR, MA, MX, OM, TN, Office
Grapevine (*Vitis* L.) (Revision)	TG/50/10(proj.2)	Mr. Luca Aggio (IT)	AU, BR, CA, CL, CN, CZ, DE, ES, FR, HU, JP, KR, MX, NZ, QZ, RU, SK, ZA, CIOPORA, Office
Guava (*Psidium guajava* L.) (Revision)	TG/110/3	Ms. Ling Gao (CN)	BR, MX, QZ, Office
Goji (*Lycium* L.)	NEW	Ms. Chuanhong Zhang (CN)	DE, KR, QZ, Office
Hazelnut (*Corylus americana* Marshall) (Revision)	TG/71/3	Mr. Flavio Roberto de Salvador (IT)	TWO, CZ, DE, ES, HU, QZ, Office
Lemon (Lemons and Limes (*Citrus* L. - Group 3)) (Partial revision: deletion of Characteristics 53, 56 and 67; changes to Characteristics 29, 68, 73	TG/203/1 Rev.	Ms. Nuria Urquía Fernández (ES)	FR, IL, JP, MA, MX, QZ, Office
Mandarin (*Citrus* L. – Group 1) (Partial revision: deletion of Characteristics 9 to 12, 15, 18, 19, 27, 35, 36, 38 to 40, 42, 43, 45 to 47, 50, 51, 58, 60, 65, 66, 68 to 70, 75, 90, 91, 93 and 104; changes to Characteristics 25, 67, 73, 91 and 98)	TG/201/1 Rev.	Ms. Nuria Urquía Fernández (ES)	BR, FR, IL, JP, KR, MA, MX, NZ, QZ, Office
Mulberry (*Morus* L.)	TG/MORUS(proj.1)	Mr. Yosuke Abe (JP)	TWO, BR, CN, HU, IT, KR, QZ, Office
*Physic Nut (*Jatropha curcas* L.)	TG/JATRO_CUR (proj.2)	Mr. Alejandro Barrientos-Priego (MX)	BR, IL, QZ, Office
*Pistachio (*Pistacia* L.)	TG/PISTA(proj.3)	Ms. Urszula Braun-Mlodecka (QZ)	AU, ES, IT, KE, MX, ZA, Office

[1] for name of experts, see List of Participants

Species	Basic Document(s)	Leading expert(s)	Interested experts (States/Organizations) [1]
Seabuckthorn (*Hippophae rhamnoides* L.) (Partial revision: Ad. 21)	TG/240/1	Ms. Bronislava Bátorová (SK)	DE, QZ, Office
Strawberry (*Fragaria* L.) (Revision)	TG/22/11(proj.1)	Mr. Erik Schulte (DE)	AU, CA, CL, ES, JP, KR, MA, NZ, PL, PT, QZ, CIOPORA, Office
Sweet Cherry (*Prunus avium* L.) (Revision)	TG/35/8(proj.1)	Ms. Carole Dirwimmer (FR)	AU, BG, CA, CZ, DE, ES, HU, IT, JP, KR, NZ, PL, QZ, RO, SK, ZA, CIOPORA, Office
Trifoliate Orange ((Poncirus) (*Citrus* L. - Group 5)) (Partial revision: deletion of Characteristics, 4, 20, 86; changes to Characteristics: 25, 100, 101	TG/83/4 Rev.	Ms. Nuria Urquía Fernández (ES)	FR, JP, MA, NZ, QZ, Office

POSSIBLE TEST GUIDELINES TO BE DISCUSSED IN 2021

Species	Basic Document(s)
Carambola (*Averrhoa carambola* L.)	NEW
Raspberry (Revision)	TG/43/7
Sour Cherry (*Prunus cerasus* L.); Duke Cherry (*Prunus ×gondouinii* (Poit. & Turpin) Rehder) (Revision)	TG/230/1

[End of Annex VII and of document]