

Technical Working Party for Agricultural Crops**TWA/48/6****Forty-Eighth Session
Montevideo, Uruguay, September 16 to 20, 2019****Original:** English
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GENERAL APPROACHES TO NEW SPECIES*Document prepared by an expert from the Czech Republic**Disclaimer: this document does not represent UPOV policies or guidance*

The annex to this document contains a copy of a presentation on “Experiences with new types and species of agricultural crops in the Czech Republic”, to be made at the forty-eighth session of the TWA.

[Annex follows]



UPOV TWA 48

Experiences with new types and species of agricultural crops in Czech Republic

Montevideo, Uruguay, 16. – 20. 9. 2019



Guidance for new types and species – TGP/13/1

Chapters according to the TGP/13/1

- New species
- Interspecific/Intergenetic hybrids
- New types of varieties



New species

New species – species which have been never or very rarely tested in CZ

Checking the novelty of the species: GENIE, CPVO, OECD, research institutes, commercial catalogues

Agricultural crops – less than 20 applications in the last 20 years in CZ

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New species

- Species for which there have been no previous application in CZ (DUS test has been performed by another UPOV member)
- Species for which there have been no previous application within UPOV
- Species which have not previously existed (e.g. intergeneric and interspecific hybrids)

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Species previously tested in another UPOV member



- overtaking results from another authority
(Tall Wheatgrass (*Thinopyrum elongatum* (Host) D.R. Dewey, variety Bamar - PL)
- request for examination in another authority
(in CZ used for trees: *Salix* – PL, *Paulownia* – DE, not for agriculture species)
- own DUS can be performed if necessary (DUS not carried out in Europe, expensive tests in abroad...)

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Species not previously tested in another UPOV member



- DUS test performed by ÚKZÚZ – most usual approach for agricultural crops



Sweet Vernal Grass
(*Anthoxanthum odoratum* L.)

Grasses – DUS test



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Species not previously tested in another UPOV member

- DUS test performed by a breeder and supervised by ÚKZÚZ



Curled Mallow (*Malva verticillata* L. var. *crispa*)



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Technical examination



Technical questionnaire – using a standard TQ

National guidelines – according to relative species already known, information from breeder, decision about plot type, spaced plants etc, list of basic characteristics – can be improved later

Field trial – comparison of the new variety with another plant material of the species (from breeder, research institutes)

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Technical examination

Testing DUS

- How the new variety differs from the other plant material?
- Is the new variety uniform more or at least in the same way as the other plant material?
- Is the new variety stable?

Testing DUS

- Visual observation (side-by-side comparison, uniformity assessment)
- Statistical analyses when possible (measured characteristics, computing variances, one-way analysis of variance)

Testing DUS

Hop Clover
Trifolium campestre Schreb.

variety Macik



another population

Testing DUS

Results 2000

Sweet Vernal Grass (*Anthoxanthum odoratum* L.)

Characteristic: Plant - natural height at inflorescence emergence

Variety	Rank	1	2	Variance	Mean
1 14G 3400002	1	X *		13,9	15,0
2 SE-401 (Jitka)	2		* X	7,6	11,6

* high significant difference between means

Results 2001

Sweet Vernal Grass (*Anthoxanthum odoratum* L.)

Characteristic: Plant - natural height at inflorescence emergence

Variety	Rank	1	2	Variance	Mean
1 14G 3400002	1	X *		8,9	15,6
2 SE-401 (Jitka)	2		* X	6,6	12,4

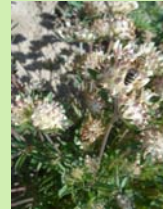
* high significant difference between means

Further varieties of the new species

- New candidates are compared to the first variety of the species
- National guidelines can be improved



Kidney Vetch
Anthyllis vulneraria L.



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Variety description

- First variety of the new species – few characteristics, measured values – real figures
- Further varieties of the new species – more characteristics can be used, extension of scales, notes

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Variety description

Red Feather Clover (*Trifolium rubens* L.) variety Rudolf

Znak Characteristic	Stupeň projevu State of Expression	Známka Note
1. Rostlina: růstový habitus Plant: growth habit	střední medium	-
2. Rostlina: výška Plant: height	cca 45 cm	-
3. Střední lístek: tvar Central leaflet: shape	podlouhý elongated	-
4. Střední lístek: délka Central leaflet: length	cca 44 mm	-
5. Střední lístek: šířka Central leaflet: width	cca 15 mm	-
6. Doba začátku kvetení Time of beginning of flowering	přelom května a června the turn of May and June	-
7. Květenství: délka Inflorescence: length	cca 74 mm	-
8. Květenství: šířka Inflorescence: width	cca 21 mm	-
9. Květenství: barva Inflorescence: colour	tmavě purpurová dark purple	-



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Interspecific/Intergeneric hybrids

Variety Pramedi – interspecific hybrid Red Clover x Zigzag Clover (*Trifolium pratense* L. x *Trifolium medium* L.)



Red Clover



Zigzag Clover

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Interspecific hybrid Pramedi

Pramedi – bred out by interspecific crosses between red clover and zig-zag clover, F1 plants – in vitro cultivation, back-crossing with red clover



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Interspecific hybrid Pramedi

Pramedi – morphology similar to this of red clover

Test Guidelines, Technical Questionnaire – according to those of red clover

Variety description – compared to the reference collection of red clover, notes

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New types of varieties

- Species itself already tested in the past
- First information about a new type – in Technical Questionnaire
- DUS test is based on the current technical protocol

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New types of varieties – Caraway

Caraway (*Carum carvi* L.) – a new seasonal type, variety Aprim



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Thank you for your attention

[End of Annex and of document]