

Technical Working Party for Ornamental Plants and Forest Trees**TWO/57/8****Fifty-Seventh Session****Roelofarendsveen, Kingdom of the Netherlands,
March 31 to April 3, 2025****Original:** English**Date:** March 31, 2025

THE VALUE AND RELIABILITY OF BOTANICAL NAMES IN ORNAMENTALS*Document prepared by an expert from the Kingdom of the Netherlands**Disclaimer: this document does not represent UPOV policies or guidance*

The annex to this document contains a copy of a presentation “The value and reliability of botanical names in ornamentals”, to be made by an expert from the Kingdom of the Netherlands, at the fifty-seventh session of the TWO:

[Annex follows]



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Introduction: Importance of botanical names

- It is basic taxonomical information of varieties in official variety registers
- For DUS examination, it provides crucial information for using the correct test guidelines and selecting the most relevant similar varieties
- It is the basis for the European Union to entrust Examination Offices (EO) to examine DUS on its behalf
- It also plays a role when assessing suitability of variety denominations

>> there is no doubt that botanical names are of high importance

Denomination ⓘ

Breeder's reference ⓘ

Species

Application number(s) ⓘ

[Advanced search](#)

Upov code	Botanical name	Common name
<input type="text"/>	<input type="text"/>	<input type="text"/>

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Introduction: Basic information on botanical names

- Basic register provided by UPOV in the GENIE database
- The taxonomical database GRIN is used as a solid scientific basis

>> *By using these standard sources harmonization is achieved*

>> *taxonomical changes can be handled*

>> *in general there is satisfaction in the UPOV community*

GENIE Database



Search
Crop /
Species:

ALL
Botanical Name
Common Name in English
Common Name in French
Common Name in Spanish
Common Name in German

GRIN Taxonomy

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Source of botanical names for applications

- Breeders are asked to assign a botanical name to their application
- This info is used as a basis for registration and the DUS trial
- In principle this name is used in the official variety register

1. Subject of the Technical Questionnaire

1.1 Genus

1.1.1 Botanical name

1.1.2 Common name

1.2 Species

1.2.1 Botanical name

1.2.2 Common name

1. Botanical taxon: Name of the genus, species or sub-species to which the variety belongs and common name:

Genus

Species

Common name

>> *How reliable is this information??*

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How reliable are the botanical names for applied varieties?

Subquestions to answer this main question

- Are the botanical names of our varieties always well identified?
- Can we trust the information provided by the breeders?
- Do we check it?

Extra questions

- Who is responsible for the correctness?
- Who should check this?
- Is it part of the DUS research?

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Some examples in recent years

- Based on experiences of Naktuinbouw
- Focus on ornamentals
- Variety names have been anonymised

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Phalaenopsis* and *xDoritaenopsis

- Until 6 years ago varieties of Moth orchid were classified in *Phalaenopsis* or *xDoritaenopsis* (the last is a hybrid between *Phalaenopsis* and *Doritis*)
- The differences between *Phalaenopsis* and *xDoritaenopsis* are not very clear, even for specialists
- The information provided by the breeder has been accepted and used (A pragmatic solution; no check in detail by Naktuinbouw)
- The crops had the same protocol and Naktuinbouw always combined the collections for finding the best similar varieties
- Six years ago the names have been merged according new taxonomical research: *Phalaenopsis* (syn. *xDoritaenopsis*)



Conclusions

- ***The botanical names in detail until six years ago were accepted as provided by the breeder***
- ***The correctness of the botanical name in this case was not crucial***

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Several varieties of *Cenchrus setaceus* should be *Cenchrus xadvena*

- From 2009 to 2020 several varieties of this crop have been granted PBR in EU under the name *Cenchrus setaceus*
- In 2010 there has been a scientific publication and recognition of a new name: *Cenchrus xadvena* (Wipff & Veldkamp) Morrone
- In 2021 according a new scientific publication most varieties of *Cenchrus setaceus* appeared to be *Cenchrus xadvena*
- It was to the benefit of the breeders to change the name, because *Cenchrus setaceus* is an invasive species in EU (since 2017)



Conclusions

- ***The botanical name applied by the breeder was not correct***
- ***The botanical name has been adapted after grant of the PBR***

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Variety applied as *Oncidium* should be *×Brassidium*

- A variety of *Oncidium* has been applied for PBR in NL
- During the trial it has been discovered that the correct botanical name should be *×Brassidium* (= *Oncidium* × *Brassia*)
- The botanical name has been corrected during the trial

Conclusions

- The botanical name applied by the breeder was not correct
- The correctness of the botanical name is quite crucial because we need to select the best similar varieties
- The botanical names of orchids are more and more challenging because of complicated parentage



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Wrong identification of a *Tradescantia* variety

- A variety applied as *Tradescantia fluminensis* was tested DUS in NL
- Naktuinbouw discovered it should be *Tradescantia zebrina*
- Naktuinbouw was entrusted for *T. fluminensis* but not for *T. zebrina* in 2024
- An extra year of DUS was need (incl. discussion on who should pay)

Conclusions

- The botanical name applied by the breeder was not correct
- The value of the correct botanical name was crucial (linked to entrustment)
- Luckily, it could be solved during the DUS trial



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Ornamentals with complex genetic parentage (Classification to genus or species?)

- *Heuchera* or species like *Heuchera villosa/americana/sanguinea*
 - *Veronica* or species *Veronica xmedia/longifolia/spicata*
 - *Agapanthus* or *Agapanthus africanus/campanulatus/praecox*
 - *Hosta* or *Hosta sieboldiana/fortunei*
 - Etc., Etc.
-
- **PBR offices always try to get from the applicant the most precise info possible.**
 - **Indicating the correct species names (also in case of parents) becomes more and more challenging because of complex hybridization**
 - **Does the breeder really know this info; and can we expect that from them?**
 - **There is no systematic deep check; In case a mistake is spotted, a correction is made after consultation of the applicant**



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Ornamentals with complex genetics (Classification to genus or species?)

Conclusions

- **The information provided by the breeder is often accepted and used (A pragmatic solution)**
- **The species names in these crops are not consistent; more or less a random choice of the breeder**
- **The value of a species name is not very crucial because we always consider similar varieties of the whole genus**
- **Species names for complex hybrids loose their value** (too complicated genetical background too much uncertainty)

>> It becomes more relevant to use group classification

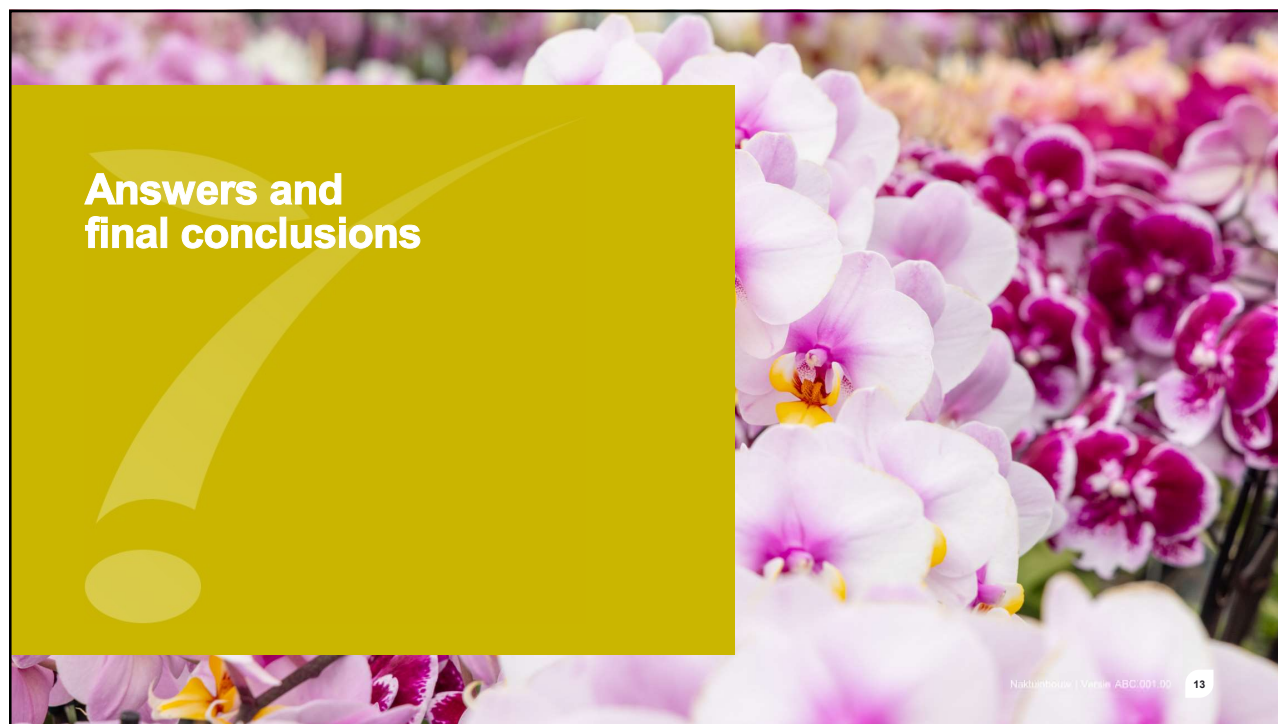
>> see Naktuinbouw presentation on this subject at UPOV TWO2021: (Use of Variety Groups in the UPOV system)



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How reliable is the botanical name for applied varieties?

Subquestions to answer this main question

- Are the botanical names of our varieties always well identified? >> **no**
- Can we always trust the information provided by the breeders? >> **no**
- Do we always check it? >> **no, not systematic**

Extra questions

- Who is responsible for the correctness? >> **breeder/applicant and/or PBR office**
- Who should check this? >> **PBR Office? & EO?; but high level of taxonomical knowledge can't be expected**
- Is it part of the DUS research? >> **depends on agreement between PBR office and EO; has the DUS examiner enough taxonomical expertise in case of complex cases?**

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Final conclusions

- Botanical names are of basic importance for official variety registers and DUS trials
- Breeders information in the TQ is used as an important basis
- This breeders information appears not always correct
- In NL and EU it is challenging to check this appropriately, especially in small ornamental crops
- Indicating the botanical name on species level and in case of complex ancestry becomes more and more challenging in many ornamental crops
- Therefore, the use of group classification is recommended when possible

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Questions or additions from your side?



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