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The organisation of the Plant Breeder's Rights DUS testing system in the Netherlands

Seoul September 2015

Raoul Haegens

Variety Registration Department, Naktuinbouw



Challenge!!





Agenda

- 1. Naktuinbouw**
- 2. CPVO EU PBR overview**
- 3. Technical Protocol**
- 4. Submission of samples**
- 5. Growing trials**
- 6. Assessment of the DUS**
- 7. Reporting**
- 8. Plant Material Policy**
- 9. Law cases**

Plantbreeding in the Netherlands



- The Netherlands Breeding sector is world market leader for:
 - Vegetables
 - Ornamentals
 - Potatoes
- 24% of value of world export of seeds and propagating material from the Netherlands
- 47% of European use of Seeds and propagating material is from the Netherlands
- Approx. 1600 applications for new varieties per year
 - 1000 applications for Community PBR
 - 600 applications for National PBR



Plantbreeding in the Netherlands

The Netherlands:

- Approximately 350 breeding companies – turnover approx. 2.5 billion Euro (prox 3 Billion \$)
- Many of them Small and Medium Sized Enterprises
- 15 – 20% of their annual turnover is spent on R&D
- Annual private investment is € 250 – 350 million (\$ 350 – 475) million



Naktuinbouw: Netherlands Inspection Service for Horticulture

- Certification and Inspection based on
 - The Dutch Seed and Plant Act 2005 and the Plant Disease Act
 - European Community Legislation
- DUS tests for National listing and protection for
 - Agricultural species
 - Ornamental species
 - Vegetable species

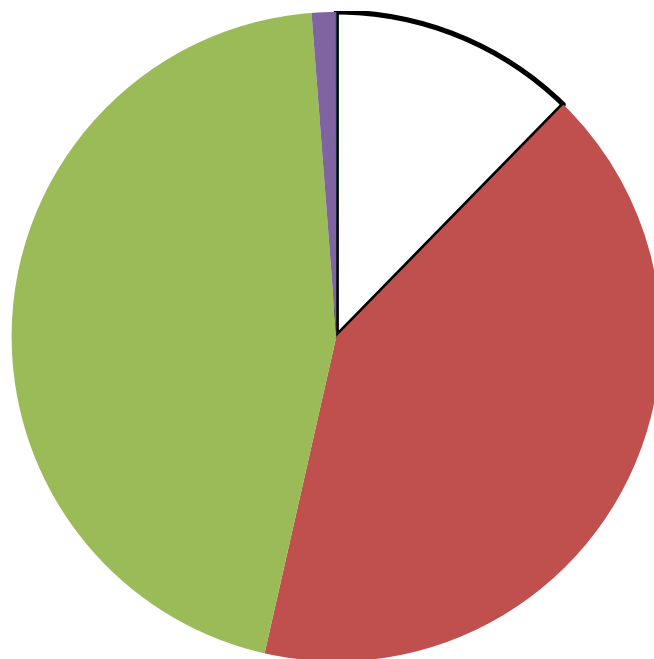
	Listing	NL PBR	EU PBR
Ornamental crops	-	224	766
Agricultural crops	267	79	5
Vegetable crops	663	440	116
Total	930	743	887





Applications in the Netherlands

**Total 62.172 since 1960 in 663
different species**



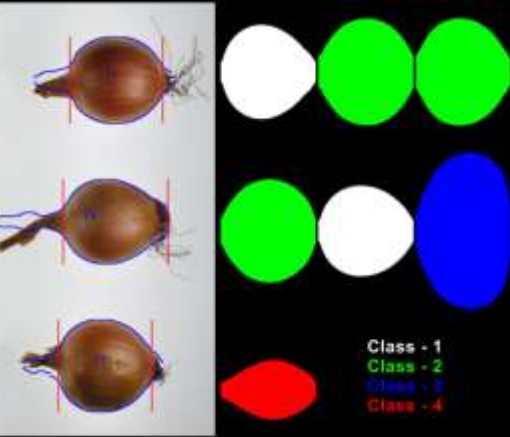
- Agriculture 7.663
- Ornamental 25.627
- Vegetable 28.126
- Arboriculture 739
- Others 17

Variety Registration in the Netherlands



— = Official
— = Operational

Naktuinbouw



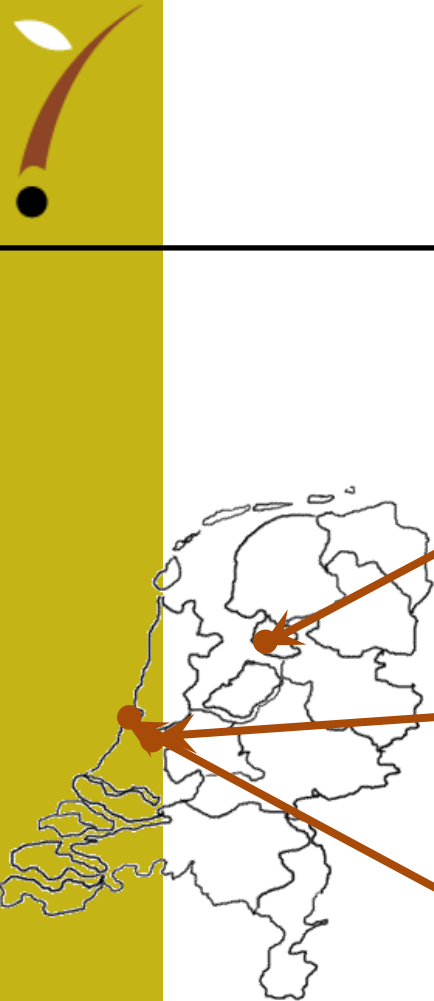
Naktuinbouw: department of Variety Testing



- Five teams
 - Administrative Bureau for Plant Varieties
 - DUS Agricultural Crops
 - DUS Ornamental and Fruit crops
 - DUS Vegetable Crops
 - Trial Management
- Number of staff: 60



Trial fields

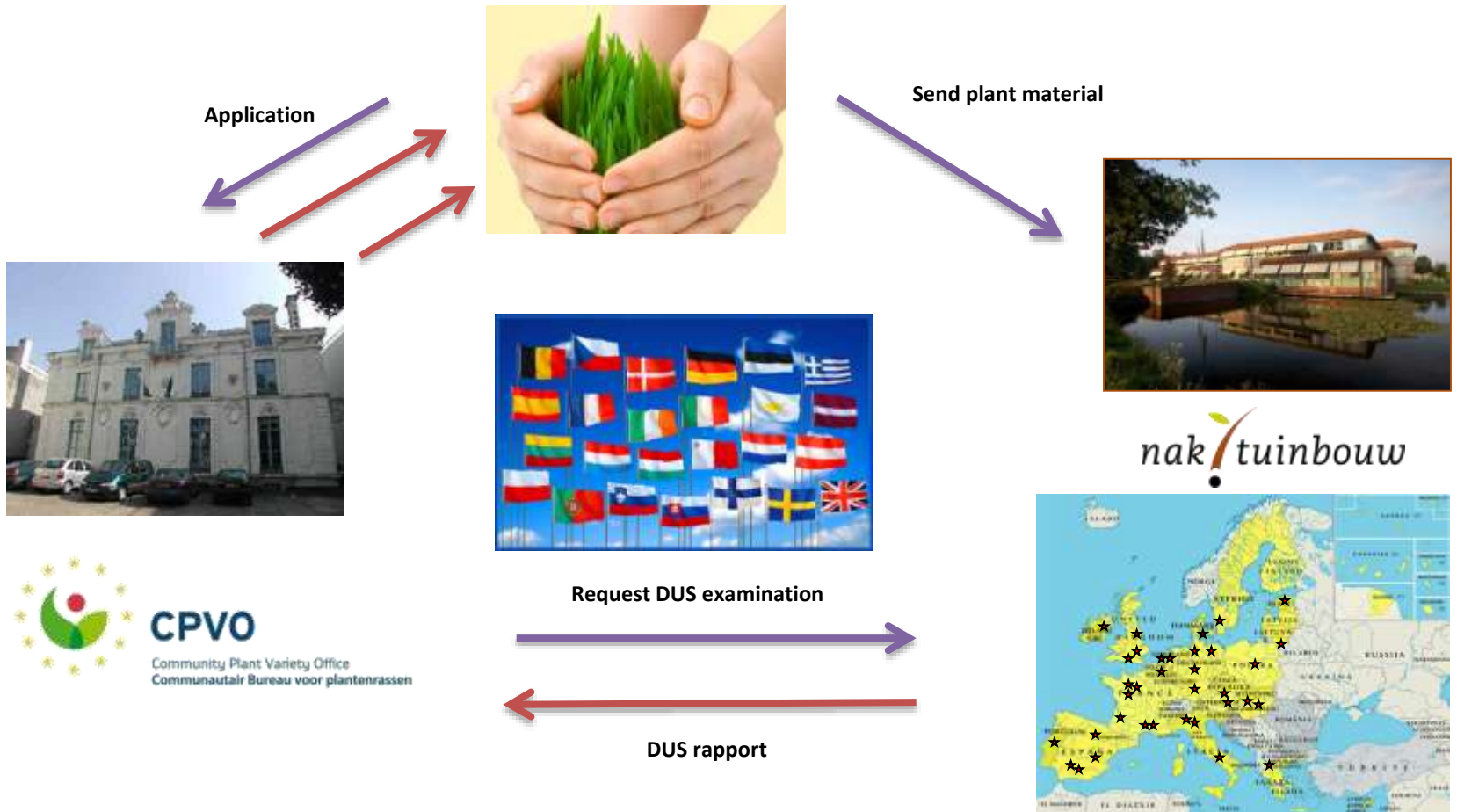




Agenda

1. **Naktuinbouw**
2. **CPVO EU PBR overview**
3. **Technical Protocol**
4. **Submission of the samples**
5. **Growing trials**
6. **Assesment of the DUS and descripcion**
7. **Reporting**
8. **Plant Material Policy**
9. **Law cases**

CPVO: EU PBR overview





CPVO: EU PBR overview

- **In order to be granted Plant Breeder's Rights, a variety must comply to criteria for**

- Distinctness
 - Uniformity
 - Stability
- } 'DUS'

- Novelty
- Denomination

If these requirements are met then the variety will be described.
This description will be the ID-card of the variety.



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CPVO Technical Protocol

- Describes:
 - the technical procedures
- Based on UPOV documents:
 - General introduction to DUS
 - Test Guidelines
 - Discussed by technical experts from the Member States





Technical Examination CPVO technical Protocol

CPVO Technical Protocols

UPOV Technical Guidelines

National Protocols

CPVO (2014) 140
June 2014/2014



PROTOCOL FOR TESTS ON DISTINCTNESS, UNIFORMITY AND STABILITY

Cucurbita pepo L.

VEGETABLE MARROW, SQUASH

UPOV Code: CUCUR_PEP

Adopted on 19/03/2014

Entry into force on 19/03/2014

UPOV
TGT/08
ORG/046, English
DATE: 2006-04-05

INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS
UPOV

**SWEET PEPPER, HOT PEPPER,
PAPRIKA, CHILI**

UPOV Code: CAPSI_ANN
Capsicum annuum L.

**GUIDELINES
FOR THE CONDUCT OF TESTS
FOR DISTINCTNESS, UNIFORMITY AND STABILITY**

Alternative Names:

Alternative name	English	French	German	Spanish
Capsicum annuum L.	Sweet Pepper, Hot Pepper, Paprika, Chili	Piment, Poivre	Paprika	Ají, Chilo, Pimentón

The purpose of these guidelines ("Test Guidelines") is to elaborate the principles contained in the General Introduction (Annexes I to III), and to associated TGP documents, into detailed practical guidelines for the systematic examination of distinctness, uniformity and stability (DUS) and, in particular, to identify appropriate characteristics for the examination of DUS and production of harmonized variety descriptions.

ASSOCIATED DOCUMENTS

These Test Guidelines should be read in conjunction with the General Introduction and its associated TGP documents.

* These pages were correct at the time of the introduction of these Test Guidelines but may be revised or updated. Readers are advised to consult the UPOV Code, which can be found on the UPOV Website (www.upov.int), for the latest information.

Author: Burk, Hans, et G. Dier.
Standardized protocol: NLA/04

Release of access:	Author: Burk, Hans, et G. Dier.
Contract Name (where known):	Author
Date of preparation of TP:	2007, Revision: 8-07-2007
TP data prepared by:	ing. W.A. Wierman
Sample to be examined:	VEGETATIVE
Number of flowers growing order:	1 year
Cloning date for applications:	1:11
Substratum description:	1/4 - 3/4
Seed/Plant Quantity:	24 young plants of commercial standard
Seed/Plant Quality:	appropriate to be grown in the open
Special conditions (single):	
Test station address:	Test station Wageningen, Binnensingel 10, 6711 NG Wageningen
Name Email Tel. Contact person:	C. Oudehof 0311-477222, hans.groenke@wur.nl
List of grouping characteristics:	NO: if you put in none!
Maximum number of plants in trial:	vegetative: 20 seed: not appl.
Maximum number of plants checked by sowing in crossing:	vegetative: 1 seed: not appl.
One description of where observations on the flower should take place: at full flowering	
One description of where/when observations on the leaf should take place: at full flowering	
One description of where/when the other observations should take place: at full flowering	
Test soil take place:	IN THE OPEN under conditions to protect the plants against full sun light
Uniformity: Population treated seed: 1%	
Title of characteristic:	PRESENT (see annex)
(if present, please insert the title of characteristic and explanation):	
Language:	PRESENT (where present, please insert in this document)

Page 1 of 3

160 Protocols

303 Guidelines



Technical Examination CPVO technical Protocol

to promote uniform testing within EU and enable
Community PBR

25

EN**TRUST**ED

Examination Offices



Technical Examination CPVO technical Protocol

Lay-out of the CPVO Technical Protocols

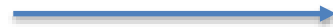
1. Subject of the Protocol and reporting
2. Material required
3. Method of examination
4. Assessment of Distinctness, Uniformity and Stability
5. Grouping of varieties and organization of the trial
6. Introduction to the table of Characteristics
7. Table of characteristics
8. Explanations on the table of characteristic
9. Literature
10. Technical Questionnaire (TQ)



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Submission of the samples



- Closing dates
- Amount and Quality
- Examination Office



1. Appropriately packaged
 2. Clearly labelled
 3. Must be submitted in the specified period, number and conditions.
- S2 Gazette

CPVO
Community Plant Variety Office

Access to documents
Published Requirements
Evaluation reports
State Protection
S2 Gazette
Support documents
Technical Projects Reports
Specimen and Article
Annual Reports
Official Gazette
QAS procedure Manual
@ Follow @CPVOnews

100 Results 0 items - 1/1/2012/2012

1/1/2012/2012
Cropping date needed
Whole publication
S2 Gazette
Use of for grass

Please add manually the varieties when 'Transfer' list to obtain a unique list of all items

1/1/2012/2012

Year	Month	Day	Application	Submission	Quantity	Unit
2012	1	01	Wheat (varieties to be submitted)	01/12	01/12	0.000 seeds
2012	1	01	Barley (varieties to be submitted)	01/12	01/12	0.000 seeds
2012	1	01	Oats	01/12	01/12	0.000 seeds (1/1/12)
2012	1	01	Rye (varieties to be submitted)	01/12	01/12	0.000 seeds
2012	1	01	Maize (varieties to be submitted)	01/12	01/12	0.000 seeds (1/1/12)
2012	1	01	Sorghum (varieties to be submitted)	01/12	01/12	0.000 seeds (1/1/12)
2012	1	01	Millet (varieties to be submitted)	01/12	01/12	0.000 seeds (1/1/12)
2012	1	01	Buckwheat (varieties to be submitted)	01/12	01/12	0.000 seeds (1/1/12)
2012	1	01	Rice (varieties to be submitted)	01/12	01/12	0.000 seeds (1/1/12)
2012	1	01	Wheat (varieties to be submitted)	01/12	01/12	0.000 seeds (1/1/12)
2012	1	01	Barley (varieties to be submitted)	01/12	01/12	0.000 seeds (1/1/12)
2012	1	01	Oats	01/12	01/12	0.000 seeds (1/1/12)
2012	1	01	Rye (varieties to be submitted)	01/12	01/12	0.000 seeds (1/1/12)
2012	1	01	Maize (varieties to be submitted)	01/12	01/12	0.000 seeds (1/1/12)
2012	1	01	Sorghum (varieties to be submitted)	01/12	01/12	0.000 seeds (1/1/12)
2012	1	01	Millet (varieties to be submitted)	01/12	01/12	0.000 seeds (1/1/12)
2012	1	01	Buckwheat (varieties to be submitted)	01/12	01/12	0.000 seeds (1/1/12)
2012	1	01	Rice (varieties to be submitted)	01/12	01/12	0.000 seeds (1/1/12)

http://www.cpvo.europa.eu/main/en/home/documents-and-publications/s2-gazette



CPVO
Community Plant Variety Office

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S2 Gazette 5.2014 - 15/10/2014

List of species:

Country name: Closing date: month

Publication:

S2 Gazette
List of fee groups

Please read attentively the explanatory notes. Contact the Office for details on a species not listed below.

Explanatory note: [1](#) [2](#) [3](#) [4](#) [5](#) [6](#) [7](#) [8](#) [9](#) [10](#) [11](#) [12](#) [13](#) [14](#) [15](#) [16](#) [17](#) [18](#) [19](#) [20](#) [21](#) [22](#) [23](#) [24](#) [25](#) [26](#) [27](#) [28](#) [29](#) [30](#) [31](#) [32](#) [33](#) [34](#) [35](#) [36](#) [37](#) [38](#) [39](#) [40](#) [41](#) [42](#) [43](#) [44](#) [45](#) [46](#) [47](#) [48](#) [49](#) [50](#) [51](#) [52](#) [53](#) [54](#) [55](#) [56](#) [57](#) [58](#) [59](#) [60](#) [61](#) [62](#) [63](#) [64](#) [65](#) [66](#) [67](#) [68](#) [69](#) [70](#) [71](#) [72](#) [73](#) [74](#) [75](#) [76](#) [77](#) [78](#) [79](#) [80](#) [81](#) [82](#) [83](#) [84](#) [85](#) [86](#) [87](#) [88](#) [89](#) [90](#) [91](#) [92](#) [93](#) [94](#) [95](#) [96](#) [97](#) [98](#) [99](#) [100](#)

S2 Publication Contact:

Species (1)

Subtype (1)	Fee group (2)	Firmness growing cycle (4) (3)	Country (5)	Examination Office (6)	Closing date (7)	Submission date start (8)	Submission date end (9)	Seed Plant Quantity (10)	Seed Plant Quality (11)
<input type="checkbox"/> <i>Capsicum annuum</i> L.									
autumn	31	2	ES	Oficina Española de Variedades Vegetales	01/06		01/07	3.000 seeds	
compact lemezo type	31	2	NL	NAKTUINDOOW	15/12		31/12	1.500 seeds	
field, summer (triangle fruit)	20	2	FR	GEVES	01/03		01/03	1.000 seeds (15 g)	
greenhouse	31	2	NO	National Food Crops Safety Office (NEBØ)	15/01		15/02	2.000 seeds	92% min. germination
greenhouse, autumn	31	2	FR	GEVES	01/05		01/06	3.000 seeds (15 g)	
vegetatively propagated	23	2	NL	NAKTUINDOOW	15/12	01/03	15/03	25 plants of commercial standard, non-grafted	
lemezo type	31	2	NL	NAKTUINDOOW	15/01		01/02	1.500 seeds	
open field	20	2	PT	Direcção Geral de Alimentação e Veterinária	15/12		01/02	3.000 seeds	
ornamental fr	10A	2	FR	GEVES	15/12		01/01	10 g seed	
ornamental rd	10A	2	NL	NAKTUINDOOW	01/12	01/02	31/02	24 young plants, able to show all their characteristics during the first year of examination	
spring	31	2	ES	Oficina Española de Variedades Vegetales	01/11		01/12	3.000 seeds	
greenhouse, spring	31	3	FR	GEVES	15/12		01/01	3.000 seeds (15 g)	

Submission of the samples



- Closing dates
- Amount and Quality
- Examination Office



1. Appropriately packaged
2. Clearly labelled
3. Must be submitted in the specified period, number and conditions.

S2 Gazette

4. Free of pest and diseases.

Quarantine requirements as for trade.

5. Untreated with insecticides, fungicides or any others treatment (primed).



Submission of the samples

Failure of comply with all the mentioned instructions may result in rejection of the application.





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Preparation of the trials

- Number of growing cycles
 - vegetative crops: usually 1 growing cycle
 - seed: often 2 independent growing cycles
- Testing Place
 - glasshouse
 - field
- Conditions for Conducting the Examination
 - optimal expression of characteristics



Trial layout

- **To facilitate appropriate comparison of varieties, similar varieties are put close together in the trial:**
 - use grouping characteristics in trial design
 - only varieties within groups need to be compared!



Example Cucurbita pepo L.

Plant Material



Method of Examination trial:

2 growing cycles

Field

42 plants

2 replications (21 plants per replication)

Candidates varieties, similar varieties,
reference varieties...

The real work can start!





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Assessment of Distinctness, Uniformity and Stability

– Distinctness

- consistent differences
- clear differences

– Uniformity

- appropriate standards according to method of propagation

– Stability

- in practice usually not tested but considered OK when sufficiently uniform
- test can be performed in case of doubt

If the variety meet the D, U en S then a description of it will be made.



Assessment of Distinctness

- **Approaches for assessing Distinctness**

- ‘side-by-side’ visual comparison in the growing trial

- varieties must be grown closely together, impracticable with large number of varieties

- ‘notes’/single variety records

- one record for state of expression of the characteristic
- several records for state of expression (plants/plant parts/plots), but variety representation by one record (mean/mode)

- statistical analyses of the data

- QN characteristics only
- requires sufficient number of records per variety



Assessment of Distinctness



Assessment of Uniformity

- **Toleration levels for uniformity are set according to**
 - method of propagation.
 - Vegetatively propagated varieties
 - Self-pollinated varieties
 - Cross-pollinated varieties
 - level of breeding in the crop/species
 - Hybrids (single cross, double cross...)



Assessment of Uniformity

Approaches for assessing Uniformity

- Off-types approach
 - counting the number of obviously different plants
- ‘Standard deviations’ approach
 - variation continuous, no ‘obviously different’ plants
 - level of variation relative to comparable varieties
- COY-U test
 - Statistical approach for quantitative characteristics (QN) in most agricultural species



In pepper:
Number of plants 6-35
only 1 off-type allowed



Assessment of Stability

- In practice no test for **Stability** is performed, as experience has demonstrated that when a variety has shown to be **uniform** it can also be considered stable
 - if variety not stable, then material produced will not be conform description/features of the variety
 - if breeder cannot supply material conform variety description, Breeder's Rights may be cancelled

Assessment of Stability

- **Stability is subject of control by inspection/ certification services (pre- and postcontrol)**
 - In the Netherlands e.g. Naktuinbouw, NAK





Description of the variety

- Using the table of characteristics of the protocol.



CPVO N°	UPOV N°	Stage, Method	Characteristics	Examples	Note
30. (+)	30.		Fruit: general shape		
			disc shaped		1
			transverse elliptical		2
			transverse broad elliptical		3
			globular		4
			top shaped		5
			broad elliptical		6
			ovate		7
			elliptical		8
			cylindrical		9
			pear shaped		10
			bottle shaped		11
G			club shaped		12
31.1	31.1		Only Scallop type varieties: Fruit: length		
			short	Bennings Green Tint	3
			medium	Surburst	5
			long	Yellow Bush Scallop	7
31.2	31.2		Only Acorn type varieties: Fruit: length		
			short	Table Gold	3





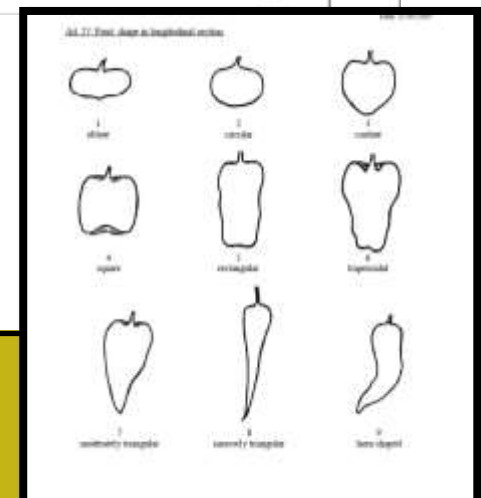
Table of characteristics

32.	33.	PQ	Fruit: colour (at maturity)		
(b)	(*)	VG	yellow	Golden calwonder, Heldor	1
	(b)		orange	Ariane	2
			red	Fehér, Lamuyo	3
			brown	Brupa, Negral	4
G			green	Green6203	5



Table of characteristics

CPVO N°	UPOV N°	Stage, Method	Characteristics	Examples	Note
27.	28.	PQ	Fruit: shape in longitudinal section		
(+)	(+)	VG	oblate	Liebesapfel, PAZ szentesi, Topepo rosso	1
	(*)		circular	Cherry Sweet	2
(b)	(b)		cordate	Daniel	3
			square	Delphin, Yolo Wonder	4
			rectangular	Clovis, Nocera rosso	5
			trapezoidal	Delta, Piperade	6
			moderately triangular	Fehér, Marconi	7
			narrowly triangular	De Cayenne, Demon	8
G			horn shaped	Tauro	9





Standard pictures



Applicants are invited





Destruction of the trial





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Reporting

Interim report:

interim report: mid-term on D, U and S.

In case of a crop which generally requires 1 year testing but results demand a second year's testing, also an interim report is issued

In case of a crop which generally requires 2 years testing but results demand a third year's testing, also an interim report is issued

TUSSENRAPPORT OVER HET TECHNISCH ONDERZOEK IN HET KADER VAN TOELATING EN KWEEKERSRECHT INTERIM REPORT ON THE TECHNICAL EXAMINATION IN THE FRAMEWORK OF LISTING AND PLANT BREEDERS' RIGHTS

1.	Verwijsnummer rapporterende autoriteit <small>Reference no. reporting authority</small>	KBL0095
2.	Opdrachtgevende autoriteit <small>Requesting authority</small>	
3.	Verwijsnummer opdrachtgevende autoriteit <small>Reference no. requesting authority</small>	
4.	Voorlopige aanduiding <small>Breeder's reference</small>	Bejo 2861 Hybride / Hybrid
5.	Aanvraagdatum <small>Date of application</small>	24-02-2012
6.	Aanvrager <small>Applicant</small>	Bejo Zaden B.V., WARMENHUIZEN, NL
7.	Gemachtigde <small>Agent</small>	
8.	Botanische gewasnaam <small>Botanical name of taxon</small>	Brassica oleracea L. convar. botrytis (L.) Alef. var. botrytis L.
9.	Nederlandse gewasnaam <small>Common name of taxon</small>	Bloemkool / Cauliflower
10.	Rasbenaming <small>Variety denomination</small>	
11.	Kesker <small>Breeder</small>	Bejo Zaden B.V., WARMENHUIZEN, NL
12.	Onderzoeksauteuriteit <small>Testing authority</small>	Naturbouw, NL
13.	Onderzoeksstation en -plaats <small>Testing station and place</small>	Naturbouw, ROELOFARENDSEVEEN, NL
14.	Periode van onderzoek <small>Period of testing</small>	2012
15.	Datum en plaats uitgifte rapport <small>Date and place of issue of document</small>	15-08-2013, ROELOFARENDSEVEEN, NL
16.	Algemene informatie <small>General information</small>	
	a. Geen plantmateriaal ontvangen <small>No plant material received</small>	<input type="checkbox"/>
	b. Voldoet niet aan de eisen <small>Requirements for plant material not met</small>	<input type="checkbox"/>
	c. Onderzoek mislukt, waarnemingen <small>Test failed, observations</small>	<input type="checkbox"/>



Reporting

Final report:
situation at the end of the DUS
test, decision on D,U and S

ERENKAPPORT OVER HET TECHNISCHE ONDERZOEK IN HET RAJDEK VAN TOELATING EN MERKENRECHT FINAL REPORT ON THE TECHNICAL EXAMINATION IN THE PROVISION OF LISTED SEED-LIST APPROVAL RIGHTS	
1. Verzoeknummer / application no. submitted	NR.2011
2. Opdrachtgever/ende autoriteit / Requesting authority	
3. Verzoeknummer opdrachtgever/ende autoriteit / Reference no. requesting authority	
4. Invoering/omschrijving / Breeder's reference	894.2007 Nubia (Hybrid)
5. Aanvraagdatum / Date of application	24-02-2012
6. Auteursgen / Applicant	Van Zanten B.V., WARMENHOUTEN, NL
7. Samensteller / Agent	
8. Referentie/geroepen / Reference name of parent	89400-00004-1, 89400-00010-1, 89400-00011-1, 89400-00012-1
9. Referentie/geroepen / Reference name of parent	894000017-1, 894000018-1
10. Referentie/geroepen / Variety denomination	Cartagen
11. Funksie / Breeder	Van Zanten B.V., WARMENHOUTEN, NL
12. Ouderland/aansteller / Origin/authority	Netherlands, NL
13. Ouderland/aansteller van afstam / Origin/authority and parent	Netherlands, NEDERLANDSE PLANTENVEREDERING, NL
14. Periode van onderzoek / Period of testing	2011-2012
15. Datum van plaats afgifte rapport / Date of preparation of issue of document	21-05-2014, NEDERLANDSE PLANTENVEREDERING, NL

Verwijsnummer rapporterende autoriteit: KBL895				
15. Kenmerken uit het protocol of richtlijn Characteristics included in the protocol or guideline				
CPVO CPVO No.	Kenmerken Characteristics	Espressie States of expression	Klasse Note	Opmerkingen Remarks
1	Kiemplant: anthocyaan-kerfing hypocoel <i>Seedling: anthocyanin coloration of hypocotyl</i>	aanwezig <i>present</i>	9	
2	Plant: hoogte (bij oogstrijpheid) <i>Plant: height (at time of harvest)</i>	midden <i>medium</i>	5	
3	Strook: lengte (tot de eerste bladaanzet) <i>Stem: length (up to the insertion of first leaf)</i>	kort <i>short</i>	3	
4	Blad: houding <i>Leaf: attitude</i>	halfopgericht <i>semi-erect</i>	3	
5	Blad: lengte <i>Leaf: length</i>	midden tot lang <i>medium to long</i>	6	
6	Blad: breedte <i>Leaf: width</i>	midden <i>medium</i>	5	
7	Blad: verhouding breedte/lengte <i>Leaf: ratio width/length</i>	midden <i>medium</i>	5	
8	Blad: getooidheid <i>Leaf: lobing</i>	ontbrekend <i>absent</i>	1	
9	Blad: kleur (met was, indien aanwezig) <i>Leaf: color (with wax if present)</i>	grijsgroen <i>grey green</i>	2	
10	Blad: kleurintensiteit (als bij 9) <i>Leaf: intensity of color (as for 9)</i>	donker <i>dark</i>	7	
11	Blad: draaiing van de top <i>Leaf: twisting of tip</i>	zwak <i>weak</i>	3	
12	Blad: vorm in dwarsdoorsnede <i>Leaf: shape in cross-section</i>	vlak <i>flat</i>	2	
13	Blad: bubbeling <i>Leaf: blistering</i>	zwak <i>weak</i>	3	
14	Blad: plooiing bij de hoofdnerf <i>Leaf: crimping near main vein</i>	zwak tot midden <i>weak to medium</i>	4	
15	Blad: golfing rand <i>Leaf: undulation of margin</i>	zwak <i>weak</i>	3	
16	Kool: afdekking door het binnenblad <i>Curd: covering by inner leaves</i>	gedeeltelijk gedekt <i>partly covered</i>	2	
17	Kool: hoogte <i>Curd: height</i>	midden <i>medium</i>	5	
18	Kool: diameter <i>Curd: diameter</i>	midden <i>medium</i>	5	
19	Kool: vorm in lengtedoorsnede <i>Curd: shape in longitudinal section</i>	rand <i>annular</i>	1	
20	Uitgezonderd rassen met een driehoekige koolvorm: Kool: werving <i>Excluding varieties with curd shape triangular: Curd: doming</i>	midden <i>medium</i>	5	
21	Kool: kleur <i>Curd: colour</i>	witachtig <i>whitish</i>	1	
22	Kool: bonkigheid <i>Curd: doming</i>	fijn tot midden <i>fine to medium</i>	4	



Agenda

1. Naktuinbouw
2. CPVO EU PBR overview
3. Technical Protocol
4. Submission of the samples
5. Method of Examination
6. Assessment of the DUS
7. Reporting
8. **Plant Material Policy**
9. Law cases



CPVO Policy on Plant Material

- **What may the EU Examination office do with the material after the variety has been granted?**

Vegetative propagated material

- No living reference collection, material should be destroyed or sent back to the applicant.
- Living reference collection, material should be kept by the EU EO until the title expiry.



Seed propagated material

- Trial is destroyed
- Sample is stored



CPVO Policy on Plant Material

- **Application withdraw or rejected?**
 - Sample has to be destroy or has to be send it back to the applicant.
- **Transfer of material between two entrusted EO:**
 - No permission from the entitle need it.
 - If the sample consist of a parent line then entrusted EO should inform the applicant/ entitled.
 - The transfered material can be used for DUS examination purposes only.



CPVO Policy on Plant Material

- **Transfer of material between an entrusted EO and another EO:**
 - Only if the person entitled consent.
 - If the variety is sold on the market, consentment is no needed it.



nak / tuinbouw

Yes!





Agenda

1. **Naktuinbouw**
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Law cases

After granting: private

Help for technical research: yes

Assistance yes when required by a judge





Law cases

- Doubts about the identity of plant material
- Suspected second cropping
- Suspicion of infringement of Plant Breeders' Rights
- Rights and patents 'Essential Derived Varieties' (EDVs)



Law cases

CPVO database on PVR case law:
253 court decisions in the EU



In The Netherlands:
Mainly infringement in ornamentals
and parent lines in vegetales



**Thank you for your attention.
Questions?**



Quality in Horticulture