

Technical questionnaire

maize

CPVO/TQ-002/3

Mandatory fields or sections are marked with an asterisk ()*

01 . Botanical taxon: name of the genus, species or sub-species to which the variety belongs:

Zea mays L.

02 . Application code:

For office use only

03 . Breeder's reference

Breeder's Ref.

04 . Information on the breeding scheme and propagation of the variety *

04 . 01 . Breeding scheme *

04 . 01.01 . Type of material *

(this question could be confidential)

inbred line

Please specify the genetic origin:

single-cross hybrid

three-way cross hybrid

double-cross hybrid

open-pollinated variety

other

Indicate formula

04 . 01.01.01 . Variety use *

agricultural

sweet

pop

04 . 01.02 . Variety resulting from: *

04 . 01.02.01 . Crossing

(this question could be confidential)

controlled cross (indicate parent varieties)

partially known cross (indicate known parent variety(ies))

unknown cross

04 . 01.02.02 . Mutation

(this question could be confidential)

Please state parent variety

04 . 01.02.03 . Discovery and development *

(this question could be confidential)

Please state when the variety was discovered *

Please state where the variety was discovered *

Please state how the variety has been developed *

04 . 01.02.04 . Other information on the origin of the variety

(this question could be confidential)

Please specify

04 . 02 . Method of propagation of the variety *

04 . 02.01 . In the case of hybrid varieties the production scheme should be provided. This should provide details of all the parent lines required for propagating the hybrid e.g.



04 . 02.01.01 . Single hybrid*(this question could be confidential)*

Denomination or breeder's reference of female parental line of single hybrid)	x	(Denomination or breeder's reference of male parental line of single hybrid)
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()	x	()
---	---	---	---	--	---

04 . 02.01.02 . Three-Way hybrid

female parent of single hybrid - A

male parent of single hybrid - B

()	x	()
---	---	---	---	--	---

single hybrid used as parent - AB

male or female parent of three-way hybrid - C

()	x	()
---	---	---	---	--	---

Three-way hybrid - (AB)C

()	x	()
---	---	---	---	--	---

04 . 02.01.03 . Double Hybrid

female parent of single hybrid - A

male parent of single hybrid - B

()	x	()
---	---	---	---	--	---

female parent of single hybrid - C

male parent of single hybrid - D

()	x	()
---	---	---	---	--	---

single hybrid A x B used as female parent

single hybrid C x D used as female parent

()	x	()
---	---	---	---	--	---

Double hybrid (AB) (CD)

()	x	()
---	---	---	---	--	---

04 . 02.01.04 . The production scheme should identify in particular:*(this question could be confidential)*

any male sterile female parent lines

maintenance system of male sterile female parent
lines**04 . 02.02 . Open-pollinated variety***(this question could be confidential)*

Please provide details

04 . 02.03 . Other information on the method of propagating the variety*(this question could be confidential)*

Please specify

04 . 03 . Notification concerning a technical examination carried out with a DUS system of breeders participation (e.g. French maize testing system) *

In case of hybrids, please give the requested information for each component too (you may use the confidential part of the technical questionnaire to indicate this information):

No, the variety has not been notified for being
tested under such systemYes, the variety has been notified for being tested
under this system

04 . 03.01 . Breeders participation system

If you notified the Examination Office on your intention to use the breeders participation system (for the hybrid and/or its components), please attach a copy of the notification(s)



05 . Characteristics of the variety to be indicated *

(the number in brackets refers to the corresponding characteristic in the CPVO Technical Protocol; please mark the state of expression which best corresponds)



05 . 01 . Tassel: time of anthesis (6) (G) *

1 - very early	Please indicate comparable variety(ies) of your choice
2 - very early to early	Please indicate comparable variety(ies) of your choice
3 - early	Please indicate comparable variety(ies) of your choice
4 - early to medium	Please indicate comparable variety(ies) of your choice
5 - medium	Please indicate comparable variety(ies) of your choice
6 - medium to late	Please indicate comparable variety(ies) of your choice
7 - late	Please indicate comparable variety(ies) of your choice
8 - late to very late	Please indicate comparable variety(ies) of your choice
9 - very late	Please indicate comparable variety(ies) of your choice

05 . 02 . Tassel: anthocyanin coloration at base of glume (7) (G) *

1 - absent or very weak	W117, Royalty (SC)
2 - very weak to weak	
3 - weak	F66, Boston (SC)
4 - weak to medium	
5 - medium	F107
6 - medium to strong	
7 - strong	EP1
8 - strong to very strong	
9 - very strong	



05 . 02.00 . Tassel: anthocyanin coloration at base of glume (7) (G) *

*If **Segregation** for this characteristic in the case of three-way hybrids or double-cross hybrids, please indicate several notes.*

1 - absent or very weak

2 - very weak to weak

3 - weak

4 - weak to medium

5 - medium

6 - medium to strong

7 - strong

8 - strong to very strong

9 - very strong

05 . 02.01 . Tassel: anthocyanin coloration of glumes excluding base (8)

1 - absent or very weak

F259, Empire (SC)

2 - very weak to weak

3 - weak

F2, Royalty (SC)

4 - weak to medium

5 - medium

WD36, Centurion (SC)

6 - medium to strong

7 - strong

W79A

8 - strong to very strong

9 - very strong

05 . 02.01.00 . Tassel: anthocyanin coloration of glumes excluding base (8)

*If **Segregation** for this characteristic in the case of three-way hybrids or double-cross hybrids, please indicate several notes.*

1 - absent or very weak

2 - very weak to weak

3 - weak

4 - weak to medium

5 - medium

6 - medium to strong

7 - strong

8 - strong to very strong

9 - very strong



05 . 02.02 . Tassel: anthocyanin coloration of anthers (9)

1 - absent or very weak	A654, Empire (SC)
2 - very weak to weak	
3 - weak	F2, Royalty (SC)
4 - weak to medium	
5 - medium	W182E, Centurion (SC)
6 - medium to strong	
7 - strong	
8 - strong to very strong	
9 - very strong	

05 . 02.02.00 . Tassel: anthocyanin coloration of anthers (9)

*If **Segregation** for this characteristic in the case of three-way hybrids or double-cross hybrids, please indicate several notes.*

1 - absent or very weak
2 - very weak to weak
3 - weak
4 - weak to medium
5 - medium
6 - medium to strong
7 - strong
8 - strong to very strong
9 - very strong

05 . 03 . Ear: anthocyanin coloration of silks (14) (G) *

1 - absent or very weak	F7, F195, Bonus (SC)
2 - very weak to weak	
3 - weak	F257, El Toro (SC)
4 - weak to medium	
5 - medium	F244, Gyöngymazsola (SC)
6 - medium to strong	
7 - strong	W401
8 - strong to very strong	
9 - very strong	



05 . 03.00 . Ear: anthocyanin coloration of silks (14) (G) *

*If **Segregation** for this characteristic in the case of three-way hybrids or double-cross hybrids, please indicate several notes.*

1 - absent or very weak

2 - very weak to weak

3 - weak

4 - weak to medium

5 - medium

6 - medium to strong

7 - strong

8 - strong to very strong

9 - very strong



05 . 04.01 . Only inbred lines and varieties with ear type of grain: sweet or pop: Plant: length (22.1) (G) *

1 - very short	Please indicate length in cm and/or comparable example varieties
2 - very short to short	Please indicate length in cm and/or comparable example varieties
3 - short	Please indicate length in cm and/or comparable example varieties
4 - short to medium	Please indicate length in cm and/or comparable example varieties
5 - medium	Please indicate length in cm and/or comparable example varieties
6 - medium to long	Please indicate length in cm and/or comparable example varieties
7 - long	Please indicate length in cm and/or comparable example varieties
8 - long to very long	Please indicate length in cm and/or comparable example varieties
9 - very long	Please indicate length in cm and/or comparable example varieties



05 . 04.02 . Only hybrids and open-pollinated varieties, excluding varieties with ear type of grain: sweet or pop:
Plant: length (22.2) (G) *

1 - very short	Please indicate length in cm and/or comparable example varieties
2 - very short to short	Please indicate length in cm and/or comparable example varieties
3 - short	Please indicate length in cm and/or comparable example varieties
4 - short to medium	Please indicate length in cm and/or comparable example varieties
5 - medium	Please indicate length in cm and/or comparable example varieties
6 - medium to long	Please indicate length in cm and/or comparable example varieties
7 - long	Please indicate length in cm and/or comparable example varieties
8 - long to very long	Please indicate length in cm and/or comparable example varieties
9 - very long	Please indicate length in cm and/or comparable example varieties



05 . 04.03 . Only sweet or pop: Ear:length (26) *

1 - very short	Please fill in a well known variety and the raw data requested for both varieties, candidate and well known variety.
2 - very short to short	Please fill in a well known variety and the raw data requested for both varieties, candidate and well known variety.
3 - short	Please fill in a well known variety and the raw data requested for both varieties, candidate and well known variety.
4 - short to medium	Please fill in a well known variety and the raw data requested for both varieties, candidate and well known variety.
5 - medium	Please fill in a well known variety and the raw data requested for both varieties, candidate and well known variety.
6 - medium to long	Please fill in a well known variety and the raw data requested for both varieties, candidate and well known variety.
7 - long	Please fill in a well known variety and the raw data requested for both varieties, candidate and well known variety.
8 - long to very long	Please fill in a well known variety and the raw data requested for both varieties, candidate and well known variety.
9 - very long	Please fill in a well known variety and the raw data requested for both varieties, candidate and well known variety.



05 . 04.04 . Only sweet or pop: Ear: diameter (in middle) (27) *

1 - very small	Please fill in a well known variety and the raw data requested for both varieties, candidate and well known variety.
2 - very small to small	Please fill in a well known variety and the raw data requested for both varieties, candidate and well known variety.
3 - small	Please fill in a well known variety and the raw data requested for both varieties, candidate and well known variety.
4 - small to medium	Please fill in a well known variety and the raw data requested for both varieties, candidate and well known variety.
5 - medium	Please fill in a well known variety and the raw data requested for both varieties, candidate and well known variety.
6 - medium to large	Please fill in a well known variety and the raw data requested for both varieties, candidate and well known variety.
7 - large	Please fill in a well known variety and the raw data requested for both varieties, candidate and well known variety.
8 - large to very large	Please fill in a well known variety and the raw data requested for both varieties, candidate and well known variety.
9 - very large	Please fill in a well known variety and the raw data requested for both varieties, candidate and well known variety.

05 . 04.05 . Only sweet or pop: Ear: shape (28) *

1 - conical	F16, Wombat (SC)
2 - conico-cylindrical	F816, Centurion (SC)
3 - cylindrical	F66, GH2547 (SC)



05 . 04.06 . Only sweet or pop: Ear: number of rows of grain (29) *

1 - very few	Please fill in a well known variety and the raw data requested for both varieties, candidate and well known variety.
2 - very few to few	Please fill in a well known variety and the raw data requested for both varieties, candidate and well known variety.
3 - few	Please fill in a well known variety and the raw data requested for both varieties, candidate and well known variety.
4 - few to medium	Please fill in a well known variety and the raw data requested for both varieties, candidate and well known variety.
5 - medium	Please fill in a well known variety and the raw data requested for both varieties, candidate and well known variety.
6 - medium to many	Please fill in a well known variety and the raw data requested for both varieties, candidate and well known variety.
7 - many	Please fill in a well known variety and the raw data requested for both varieties, candidate and well known variety.
8 - many to very many	Please fill in a well known variety and the raw data requested for both varieties, candidate and well known variety.
9 - very many	Please fill in a well known variety and the raw data requested for both varieties, candidate and well known variety.

05 . 04.07 . Only sweet or waxy: Ear: number of colours of grains (30) *

- | |
|---------|
| 1 - one |
| 2 - two |



05 . 05 . Ear: type of grain (34) (G) *

1 - flint	F2
2 - flint-like	F252
3 - intermediate	F107
4 - dent-like	A654
5 - dent	W182E
6 - sweet	Jubilee (SC)
7 - pop	Iowa Pop (PC)
8 - waxy	
9 - flour	

05 . 05.00 . Ear: type of grain (34) (G) *

*If **Segregation** for this characteristic in the case of three-way hybrids or double-cross hybrids, please indicate several notes.*

1 - flint
2 - flint-like
3 - intermediate
4 - dent-like
5 - dent
6 - sweet
7 - pop
8 - waxy
9 - flour

05 . 05.01 . Only sweet: Ear: shrinkage of top of grain (35) *

1 - weak	Zarja (SC)
2 - weak to medium	
3 - medium	Merkur (SC)
4 - medium to strong	
5 - strong	Dessert 73 (SC)



05 . 05.02 . Ear: colour of top of grain (36) *

1 - white	A188, Purple white (SC), Snowbelle (SC)
2 - yellowish white	
3 - yellow	F259
4 - yellow orange	F244, Gyöngymazsola (SC)
5 - orange	F257, GH2547 (SC)
6 - red orange	Dynasty (SC)
7 - red	
8 - purple	
9 - brownish	Zenith (SC)
10 - blue black	Miheukchal

05 . 05.02.00 . Ear: colour of top of grain (36) *

1 - white
2 - yellowish white
3 - yellow
4 - yellow orange
5 - orange
6 - red orange
7 - red
8 - purple
9 - brownish
10 - blue black

05 . 06 . Excluding varieties with ear type of grain: sweet: Ear: colour of dorsal side of grain (37) *

*If **Segregation** for this characteristic in the case of three-way hybrids or double-cross hybrids, please indicate several notes.*

1 - white
2 - yellowish white
3 - yellow
4 - yellow orange
5 - orange
6 - red orange
7 - red
8 - purple
9 - brownish
10 - blue black



05 . 07 . Ear: anthocyanin coloration of glumes of cob (39) (G) *

1 - absent or very weak	F2, F257
2 - very weak to weak	
3 - weak	F252
4 - weak to medium	
5 - medium	W117
6 - medium to strong	
7 - strong	A632
8 - strong to very strong	
9 - very strong	

05 . 07.00 . Ear: anthocyanin coloration of glumes of cob (39) (G) *

If **Segregation** for this characteristic in the case of three-way hybrids or double-cross hybrids, please indicate several notes.

1 - absent or very weak
2 - very weak to weak
3 - weak
4 - weak to medium
5 - medium
6 - medium to strong
7 - strong
8 - strong to very strong
9 - very strong

06 . Similar varieties and differences from these varieties

Please note that information on similar varieties may help to identify comparable varieties and can avoid an additional period of testing.

06 . 01 . Are there any similar varieties known? *

Yes

No

06 . 02 . Similar varieties and differences from these varieties: *

Denomination of similar variety	Characteristic in which the similar variety is different	State of expression of similar variety	State of expression of candidate variety



07 . Additional information which may help to distinguish the variety *

07 . 01 . In addition to the information provided in sections 5 and 6, are there any additional characteristics which may help to distinguish the variety? *

Yes, specify

No

07 . 02 . Are there any special conditions for growing the variety or conducting the examination? *

Yes, specify

No

07 . 03 . Other information *

07 . 03.01 . Sweet corn varieties only: type

normal sweet varieties (su1)

sugary enhanced varieties (se)

super sweet varieties (sh2)

other type

Please specify

07 . 03.02 . FAO maturity class *

Please indicate the average FAO maturity class *

07 . 03.03 . Other information *

Yes, specify

No

07 . 04 . Resistance to pests and diseases *

Yes, specify

No

08 . GMO-information *

08 . 01 . GMO-information required *

The variety represents a Genetically Modified Organism within the meaning of Article 2(2) of Council Directive EC/2001/18 of 12/03/2001.

Yes

If yes, please attach in point 08.02 a copy of the written attestation of the responsible authorities stating that a technical examination of the variety under Articles 55 and 56 of the Basic Regulation does not pose risks to the environment according to the norms of the above-mentioned Directive.

No

08 . 02 . In case of GMO, joint attestation of the responsible authorities stating that a technical examination of the variety under Articles 55 and 56 of the Basic Regulation does not pose risks to the environment according to the norms of the above-mentioned Directive.



09 . Information on plant material to be examined

The expression of a characteristic or several characteristics of a variety may be affected by factors, such as pests and disease, chemical treatment (e.g. growth retardants or pesticides), effects of tissue culture, different rootstocks, scions taken from different growth phases of a tree, etc. Consequently the plant material to be examined should not have undergone any treatment which would affect the expression of the characteristics of the variety, unless the competent authorities allow or request such treatment. If the plant material has undergone such treatment, full details of the treatment must be given. In this respect, please indicate below, to the best of your knowledge, if the plant material to be examined has been subjected to:

09 . 01 . Micro-organisms (e.g. virus, bacteria, phytoplasma) *

Yes, specify

No

09 . 02 . Chemical treatment (e.g. growth retardant or pesticide) *

Yes, specify

No

09 . 03 . Tissue culture *

Yes, specify

No

09 . 04 . Other factors *

Yes, specify

No

10 . Possible place of the technical examination

In case the CPVO needs to arrange a technical examination for your candidate variety, there might be more than one examination office entrusted by the CPVO to carry it out. In this case, the Office will decide on the place of the technical examination but you might wish to express a preference in respect of an examination office. The list of entrusted examination offices for that species can be found in the S2/S3 in which you will also find further information about submission of plant material and deadlines for numerous species:CPVO (plantvarieties.eu)

10 . 01 . Country where the examination could take place

Country



DECLARATIONS *

I/we hereby declare that to the best of my/our knowledge the information given in this form is complete and correct.

Place

Date

Name

Signature

