

Technical questionnaire

tomato

CPVO/TQ-044/4-Rev.5

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:

Solanum lycopersicum L.

Solanum lycopersicum L. × *Solanum pimpinellifolium* L.

Other species (please specify)

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 . Type of material *

(this question could be confidential)

hybrid

cross-pollinated variety

self-pollinated variety

parent line

04 . 02 . Method of propagation of the variety *

(this question could be confidential)

seed propagated

vegetatively propagated

04 . 03 . Other information on genetic origin and breeding method

(this question could be confidential)

Please specify

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)

The examination offices test the resistances based on the resistance test protocols listed in the CPVO-TP in force. In case the applicant does assess the resistance based on a different protocol than the one mentioned in the CPVO-TP, please be aware that this could lead to discrepancies between your declaration and the results obtained by the examination office. This may also have important consequences on the conduct of the DUS testing as well as trigger additional tests and fees. In addition, for some resistances an alternative DNA marker test exists. As the phenotype is always leading, the declaration in this Technical Questionnaire should not be based on such DNA marker test only.

05 . 01 . Plant: growth type (2) (G) *

1 - determinate	Campbell 1327, Prisca
2 - indeterminate	Marmande VR, Saint-Pierre, San Marzano 2

05 . 01.01 . Only varieties with plant growth type indeterminate: Plant: height (6) *

1 - very short	Cherry Belle
2 - very short to short	
3 - short	Carson, Despina
4 - short to medium	
5 - medium	Brooklyn, Buffalo, Vision
6 - medium to long	
7 - long	Classy, Clarence, Climberly, Massada
8 - long to very long	
9 - very long	Day Dream, Minired

05 . 02 . Leaf: type of blade (10) (G) *

1 - pinnate	Mikado, Pilot, Red Jacket
2 - bipinnate	Lukullus, Saint-Pierre

05 . 02.01 . Leaf: intensity of green colour (12) *

1 - very light	
2 - very light to light	
3 - light	Macero II, Poncette, Rossol
4 - light to medium	
5 - medium	Lucy
6 - medium to dark	
7 - dark	Allround, Daniela, Lorena, Red Robin
8 - dark to very dark	
9 - very dark	

05 . 03 . Peduncle: abscission layer (19) (G) *

1 - absent	Aledo, Bandera, Count, Lerica
9 - present	Montfavet H 63.5, Roma



05 . 04 . Fruit: green shoulder (before maturity) (21) (G) *

1 - absent	Felicia, Rio Grande, Trust
9 - present	Daniela, Montfavet H 63.5

05 . 04.01 . Fruit: green stripes (before maturity) (25) (G) *

1 - absent	Daniela
9 - present	Green Zebra, Tigerella



05 . 05 . Fruit: size (26) (G) *

1 - very small	Please indicate size in grams
2 - very small to small	Please indicate size in grams
3 - small	Please indicate size in grams
4 - small to medium	Please indicate size in grams
5 - medium	Please indicate size in grams
6 - medium to large	Please indicate size in grams
7 - large	Please indicate size in grams
8 - large to very large	Please indicate size in grams
9 - very large	Please indicate size in grams



05 . 06 . Fruit: shape in longitudinal section (28) (G) *

1 - flattened	Campbell 28, Marmande VR
2 - oblate	Montfavit H 63.4, Montfavit H 63.5
3 - circular	Cerise, Moneymaker
4 - oblong	Early Mech, Peto Gro
5 - cylindrical	Hypeel 244, Macero II, San Marzano 2
6 - elliptic	Alcaria, Castone
7 - cordate	Valenciano
8 - ovate	Dualrow, Soto
9 - obovate	Duquesta, Estelle Rimone, Rio Grande
10 - pyriform	Europeel
11 - obcordate	Cuore del Ponente, Magno

05 . 06.01 . Fruit: ribbing at peduncle end (29) *

1 - absent or very weak	Calimero, Cerise
2 - very weak to weak	
3 - weak	Early Mech, Hypeel 244, Melody, Peto Gro, Rio Grande
4 - weak to medium	
5 - medium	Montfavit H 63.4, Montfavit H 63.5
6 - medium to strong	
7 - strong	Campbell 1327, Carmello, Count
8 - strong to very strong	
9 - very strong	Costoluto Fiorentino, Ingrid, Marmande VR

05 . 07 . Fruit: number of locules (36) (G) *

1 - only two	Early Mech, Europeel, San Marzano
2 - two or three	Alphamech, Futuria
3 - three or four	Montfavit H 63.5
4 - four, five or six	Raïssa, Tradiro
5 - more than six	Marmande VR

05 . 07.01 . Do fruits of the variety reach maturity? *

Yes

No

05 . 07.02 . LSL genes *

- | |
|-------------|
| 1 - absent |
| 9 - present |



05 . 07.03 . If LSL Genes present

1 - NOR gene homozygous

2 - NOR gene heterozygous

3 - RIN gene homozygous

4 - RIN gene heterozygous

5 - other gene Please specify

05 . 07.04 . Fruit: gel in locules *

1 - absent

9 - present

05 . 08 . Fruit: colour at maturity (37) *

1 - cream Jazon, White Mirabell

2 - yellow Goldene Königin, Yellow Pear

3 - orange Sungold

4 - pink Aichi First

5 - red Dianela, Ferline, Montfavet H 63.5

6 - brown Ozyrys

7 - green Green Grape, Green Zebra

05 . 08.01 . Fruit: firmness (40) *

1 - very soft Marmande VR

2 - very soft to soft

3 - soft Trend

4 - soft to medium

5 - medium Cristina

6 - medium to firm

7 - firm Fernova, Konsul, Tradiro

8 - firm to very firm

9 - very firm Dianela, Karat, Lolek



05 . 08.02 . Time of maturity (42) *

1 - very early	Dolcevita, Sungold, Sweet Baby
2 - very early to early	
3 - early	Bianca, Rossol, Shiren
4 - early to medium	
5 - medium	Gourmet, UC 82B
6 - medium to late	
7 - late	Arletta, Durinta
8 - late to very late	
9 - very late	Dianela

05 . 09 . Resistance to *Meloidogyne incognita* (MI) (43) (G) *

1 - susceptible	Casaque Rouge
2 - moderately resistant	Campeon, Tynic
3 - highly resistant	Anahu x Casaque Rouge

05 . 10 . Resistance to *Verticillium* sp. (Va and Vd) - Race 0 (44) (G) *

1 - absent	Anabel, Marmande verte
9 - present	Daniela, Marmande VR

05 . 11 . Resistance to *Fusarium oxysporum* f. sp. *lycopersici* (Fol) - Race 0EU/1US (45.1) (G) *

1 - absent	Marmande, Marmande verte, Resal
9 - present	Gourmet, Larissa, Marporum, "Marporum x Marmande verte", Mohawk, Motelle, Riesling

05 . 12 . Resistance to *Fusarium oxysporum* f. sp. *lycopersici* (Fol) - Race 1EU/2US (45.2) (G) *

1 - absent	Cherry Belle, Marmande verte, Marporum, Ranco, Roma
9 - present	Agostino, "Motelle x Marmande verte", Odisea, Tradiro

05 . 13 . Resistance to *Tomato mosaic virus* (ToMV) - Strain 0 (48.1) (G) *

1 - absent	Monalbo, Moneymaker
9 - present	Mobaci, Mocimor, Momor, Moperou

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(s) of variety(ies) similar to your candidate variety	Characteristic(s) in which your candidate variety differs from the similar variety(ies)	Describe the expression of the characteristic(s) for the similar variety(ies)	Describe the expression of the characteristic(s) for your 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? *

07 . 02.01 . Type of culture *

in the greenhouse

in the open field

07 . 02.02 . Details of type of culture *

staked

semi-staked

non-staked

07 . 02.03 . Main use *

fresh market or garden

industrial processing (indicate type)

pot plant

rootstock

07 . 02.03.01 . Details of main use

single

truss

other

Please specify



07 . 02.03.02 . Details of main use

peel

paste

other

Please specify

07 . 02.04 . Are there any special conditions for growing the variety or conducting the examination? *

Yes

No

07 . 03 . Other information

07 . 03.01 . Resistances to pests and diseases (please specify races/strains if possible) *

The examination offices test the resistances based on the resistance test protocols listed in the CPVO-TP in force. In case the applicant does assess the resistance based on a different protocol than the one mentioned in the CPVO-TP, please be aware that this could lead to discrepancies between your declaration and the results obtained by the examination office. This may also have important consequences on the conduct of the DUS testing as well as trigger additional tests and fees. In addition, for some resistances an alternative DNA marker test exists. As the phenotype is always leading, the declaration in this Technical Questionnaire should not be based on such DNA marker test only.

07 . 03.01.01 . Resistance to *Fusarium oxysporum* f. sp. *lycopersici* (Fol) - Race 2EU/3US (45.3) *

absent

present

not tested

07 . 03.01.02 . Resistance to *Fusarium oxysporum* f. sp. *radicis-lycopersici* (Forl) (46) *

absent

present

not tested

07 . 03.01.02 . Resistance to *Fusarium oxysporum* f. sp. *radicis-lycopersici* (Forl) - indeterminate types (46) *

absent

present

07 . 03.01.03 . Resistance to *Passalora fulva* Race 0 (47.1) *

absent

present

not tested

07 . 03.01.04 . Resistance to *Passalora fulva* Group A - determinate types (47.2) *

absent

present

not tested

07 . 03.01.04 . Resistance to *Passalora fulva* Group A - indeterminate types (47.2) *

absent

present



07 . 03.01.05 . Resistance to *Passolora fulva* Group B - determinate types (47.3) *

absent
present
not tested

07 . 03.01.05 . Resistance to *Passolora fulva* Group B - indeterminate types (47.3) *

absent
present

07 . 03.01.06 . Resistance to *Passolora fulva* Group C - determinate types (47.4) *

absent
present
not tested

07 . 03.01.06 . Resistance to *Passolora fulva* Group C - indeterminate types (47.4) *

absent
present

07 . 03.01.07 . Resistance to *Passolora fulva* Group D - determinate types (47.5) *

absent
present
not tested

07 . 03.01.07 . Resistance to *Passolora fulva* Group D - indeterminate types (47.5) *

absent
present

07 . 03.01.08 . Resistance to *Passolora fulva* Group E - determinate types (47.6) *

absent
present
not tested

07 . 03.01.08 . Resistance to *Passolora fulva* Group E - indeterminate types (47.6) *

absent
present

07 . 03.01.09 . Resistance to *Tomato mosaic virus* (ToMV) strain 1 (48.2) *

absent
present
not tested

07 . 03.01.10 . Resistance to *Tomato mosaic virus* (ToMV) strain 2 (48.3) *

absent
present
not tested



07 . 03.01.11 . Resistance to *Phytophthora infestans* (Pi) (49) *

absent
present
not tested

07 . 03.01.12 . Resistance to *Pyrenochaeta lycopersici* (Pl) (50) *

absent
present
not tested

07 . 03.01.13 . Resistance to *Stemphylium* spp. (Ss) (51) *

absent
present
not tested

07 . 03.01.14 . Resistance to *Pseudomonas syringae* pv. *tomato* (Pst) - determinate types (52) *

absent
present

07 . 03.01.14 . Resistance to *Pseudomonas syringae* pv. *tomato* (Pst) - indeterminate types (52) *

absent
present
not tested

07 . 03.01.15 . Resistance to *Ralstonia solanacearum* race 1 (Rs) (53) *

absent
present
not tested

07 . 03.01.16 . Resistance to *Tomato yellow leaf curl virus* (TYLCV) (54) *

absent
present
not tested

07 . 03.01.17 . Resistance to *Tomato spotted wilt virus* (TSWV) - Strain 0 (55) (G) *

absent
present

07 . 03.01.18 . Resistance to *Leveillula taurica* (Lt) (56) *

absent
present
not tested

07 . 03.01.19 . Resistance to *Oidium neolycopersici* (On) (ex *Oidium lycopersicum* (Ol)) (57) *

absent
present
not tested



07 . 03.01.20 . Resistance to *Tomato torrado virus* (ToTV) (58) *

absent

present

not tested

07 . 03.01.21 . Other resistances

Please specify

07 . 03.02 . Other information *

Yes, specify

No

07 . 04 . Photo

It is highly recommended to provide pictures (especially fruits at maturity). Otherwise, the organisation of the technical examination will be rendered less efficient, with the risk of an additional year of technical examination at the costs of the applicant.

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 this candidate variety, there might be more than one examination office entrusted by the CPVO suitable to grow your variety. In this case, the Office will decide on the place of the technical examination but you might wish to express here a preference in respect of an examination office. The available entrusted examination offices for that species can be found in the S3 Gazette under:<http://cpvo.europa.eu/en/applications-and-examinations/technical-examinations/entrusted-examination-offices>

You will also find in the S2 Gazette further information about submission of plant material and deadlines for numerous major species:<http://cpvo.europa.eu/en/applications-and-examinations/technical-examinations/submission-of-plant-material-s2-publication>

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

