

Technical questionnaire

Spinacia oleracea L.

Spinach

Version 18 - Publication date: 12/06/2024

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

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

04.01. Type of material *

- hybrid
- cross-pollinated variety
- self-pollinated variety
- parent line

04.01.01. Parental line use *

In many cases there is a link in morphological expression of characteristics between the parent line and its hybrids. Therefore, it is recommended to provide information about the identity of hybrid varieties where the parental line is used. This makes the organisation of the technical examination more efficient and lowers the risk of an additional year at the costs of the applicant. This information will be dealt with confidentially and only share with the examination office in charge of the technical examination.

Please indicate for the production of which hybrid variety(ies) the parental line is used

*

04.02. Method of propagation of the variety *

- seed propagated
- vegetatively propagated

04.03. Other information on genetic origin and breeding method

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)

(1) 05.00. Seeds: spines (submitted seeds) *

- 1 - absent Butterflay, Marimba

- 9 - present Breedblad, Scherpzaad

(3) (G) 05.01. Plant: red coloration of stem, petioles and veins *

- 1 - absent Resistoflay, Nores
- 9 - present Red Cardinal, Reddy

(4) (G) 05.02. Leaf blade: intensity of green colour *

- 1 - very light
- 2 - very light to light
- 3 - light Monet, Viroflay, Winterreuzen
- 4 - light to medium
- 5 - medium Butterflay, Monnopa
- 6 - medium to dark
- 7 - dark Imola, Lavewa, Nores
- 8 - dark to very dark
- 9 - very dark Lorelay, Mystic

(5) (G) 05.03. Leaf blade: blistering *

- 1 - absent or very weak Matador
- 2 - very weak to weak
- 3 - weak Polka, Tarpy
- 4 - weak to medium
- 5 - medium Butterflay, Koala, Mystic
- 6 - medium to strong
- 7 - strong Giraffe, Rhythm
- 8 - strong to very strong
- 9 - very strong Menorca, Revolver

(8) 05.03.01. Petiole: length *

- 1 - very short
- 2 - very short to short
- 3 - short Imola, Mystic
- 4 - short to medium
- 5 - medium Butterflay, Giraffe



- 6 - medium to long
- 7 - long Grappa, Resistoflay
- 8 - long to very long
- 9 - very long

(10) 05.03.02. Leaf blade: shape (excluding basal lobes) *

- 1 - triangular Grappa, Maracas
- 2 - medium ovate Lavewa, Resistoflay
- 3 - broad ovate Butterfly
- 4 - medium elliptic
- 5 - broad elliptic Nores
- 6 - circular Giraffe

(12) 05.04. Leaf blade: shape of apex

- 1 - acute Grappa, Rhythm
- 2 - obtuse Resistoflay
- 3 - rounded Imola, Nores

(14) (G) 05.05. Proportion of monoecious plants *

- 1 - absent or very low Please indicate percentage
- 2 - very low to low Please indicate percentage
- 3 - low Please indicate percentage
- 4 - low to medium Please indicate percentage



5 - medium

Please indicate percentage

6 - medium to high

Please indicate percentage

7 - high

Please indicate percentage

8 - high to very high

Please indicate percentage

9 - very high

Please indicate percentage

(15) (G) 05.06. Proportion of female plants *

1 - absent or very low

Please indicate percentage

2 - very low to low

Please indicate percentage

3 - low

Please indicate percentage

4 - low to medium

Please indicate percentage



5 - medium

Please indicate percentage

6 - medium to high

Please indicate percentage

7 - high

Please indicate percentage

8 - high to very high

Please indicate percentage

9 - very high

Please indicate percentage

(16) (G) 05.07. Proportion of male plants *

1 - absent or very low

Please indicate percentage

2 - very low to low

Please indicate percentage

3 - low

Please indicate percentage

4 - low to medium

Please indicate percentage



5 - medium

Please indicate percentage

6 - medium to high

Please indicate percentage

7 - high

Please indicate percentage

8 - high to very high

Please indicate percentage

9 - very high

Please indicate percentage

(17) (G) 05.08. Time of start of bolting (for spring sown crops, 15% of plants) *

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

06 . Similar varieties and differences from these varieties

06.1. Are there any similar variety(ies) known? *

1 - yes

2 - no

06.2. 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. Resistance to pests and diseases *

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? *



Breeder's ref.: undefined

Yes, specify

No

07.02. Special conditions for the examination of the variety *

Yes, specify

No

07.03. Other information *

07.03.01. Variety use *

only in glasshouse

only in the open

in the open and in glasshouse

07.03.02. Resistance to pests and diseases *

(19) 07.03.02.01. Resistance to *Peronospora effusa* (Pe)

(ex *Peronospora farinosa* f. sp. *Spinaciae* (Pfs)) *

(19.1) 07.03.02.01.01.

absent

present

Race Pe: 1 *

(19.2) 07.03.02.01.02.

absent

present

Race Pe: 2 *

(19.3) 07.03.02.01.03.

absent

present

Race Pe: 3 *

(19.4) 07.03.02.01.04.

absent

present

Race Pe: 4 *

(19.5) 07.03.02.01.05.

absent

present

Race Pe: 5 *



(19.6) 07.03.02.01.06. absent present
Race Pe: 6 *

(19.7) 07.03.02.01.07. absent present
Race Pe: 7 *

(19.8) 07.03.02.01.08. absent present
Race Pe: 8 *

(19.10) 07.03.02.01.09. absent present
Race Pe: 10 *

(19.10) 07.03.02.01.10. absent present
Race Pe: 11 *

(19.11) 07.03.02.01.11. absent present
Race Pe: 12 *

(19.12) 07.03.02.01.12. absent present
Race Pe: 13 *

(19.13) 07.03.02.01.13. absent present
Race Pe: 14 *

(19.14) 07.03.02.01.14. absent present
Race Pe: 15 *

(19.15) 07.03.02.01.15. absent present
Race Pe: 16 *



(19.16) 07.03.02.01.16. absent present
Race Pe: 17 *

(19.17) 07.03.02.01.17. absent present
Race Pe: 18 *

(19.18) 07.03.02.01.18. absent present
Race Pe: 19 *

(20) 07.03.02.02. Resistance to *Cucumber mosaic virus (CMV)* *

- absent
- present
- not tested

07.03.02.03. Other resistances to pests and diseases (fill none if you are not concerned) *

Please indicate *

07.03.03. Other information *

- Yes, specify
- No

07.04. Photo

It is highly recommended to provide pictures. 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.

Documents to be attached

08 . GMO-information requested

08.a. The variety represents a genetically modified organism (GMO) within the meaning of Article 2(2) of Council Directive EC/2001/18 of 12/03/2001 which requires authorization for release in the environment:

*

- 1 - yes
- 2 - no



08.b. If yes, has such authorization been obtained? *

- 1 - yes
- 2 - no

08.c. If yes, please attach a copy of such an authorization *

Documents to be attached

