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| International Union for the Protection of New Varieties of Plants |  |

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| Technical Committee  Fifty-Ninth Session  Geneva, October 23 and 24, 2023 | TC/59/27  Original: English  Date: October 5, 2023 |

Partial revision of the Test Guidelines for Tomato Rootstocks

Document prepared by the Office of the Union

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The purpose of this document is to present a proposal for a partial revision of the Test Guidelines for Tomato Rootstocks (document TG/294/1 Corr. Rev. 4) for inclusion of characteristics from the Table of Characteristics in the Technical Questionnaire.

The Technical Working Party for Vegetables (TWV), at its fifty-seventh session[[1]](#footnote-2), considered document TWV/57/19 “Partial revision of the Test Guidelines for Tomato Rootstocks” and agreed to propose the inclusion of the following characteristics in the TQ (characteristics for inclusion indicated in highlight and underline) (see document TWV/57/26 “Report”, paragraph 75):

|  |  |  |
| --- | --- | --- |
| **Char. No.** | **(\*)** | **Characteristic Name** |
| 2 |  | Plant: height |
| 8 | (\*) | Leaf: intensity of green color |
| 11 | (\*) | Fruit: green shoulder |
| 14 |  | Fruit: conspicuousness of meridian stripes |
| 16 | (\*) | Fruit: size |
| 17 | (\*) | Fruit: shape in longitudinal section |
| 18 | (\*) | Fruit: number of locules |
| 19 | (\*) | Fruit: color at maturity |
| 21 | (\*) | Autonecrosis |
| 22 | (\*) | Resistance to *Meloidogyne incognita* (Mi) |
| 23 |  | Resistance to *Verticillium* sp. (Va and Vd) – Race 0 |
| 24.1 |  | Resistance to *Fusarium oxysporum* f. sp. *lycopersici* (Fol) – Race 0EU/1US |
| 24.2 |  | Resistance to *Fusarium oxysporum* f. sp. *lycopersici* (Fol)– Race 1EU/2US |
| 24.3 | (\*) | Resistance to *Fusarium oxysporum* f. sp. *lycopersici* (Fol)– Race 2EU/3US |
| 25 | (\*) | Resistance to *Fusarium oxysporum* f. sp. *radicis‑lycopersici* (Forl) |
| 26.1 |  | Resistance to *Passalora fulva* (Pf) (ex *Fulvia fulva*) – Race 0 |
| 26.2 |  | Resistance to *Passalora fulva* (Pf) (ex *Fulvia fulva*) – Group A |
| 26.3 |  | Resistance to *Passalora fulva* (Pf) (ex *Fulvia fulva*) – Group B |
| 26.4 |  | Resistance to *Passalora fulva* (Pf) (ex *Fulvia fulva*) – Group C |
| 26.5 |  | Resistance to *Passalora fulva* (Pf) (ex *Fulvia fulva*) – Group D |
| 26.6 |  | Resistance to *Passalora fulva* (Pf) (ex *Fulvia fulva*) – Group E |
| 27.1 |  | Resistance to Tomato mosaic virus (ToMV) – Strain 0 |
| 27.2 |  | Resistance to Tomato mosaic virus (ToMV) – Strain 1 |
| 27.3 |  | Resistance to Tomato mosaic virus (ToMV) – Strain 2 |
| 28 |  | Resistance to *Pyrenochaeta lycopersici* (Pl) |
| 29 |  | Resistance to *Stemphylium* spp. (Ss) |
| 30 |  | Resistance to Tomato yellow leaf curl virus (TYLCV) |
| 31 |  | Resistance to Tomato spotted wilt virus (TSWV) |
| 32 |  | Resistance to *Oidium neolycopersici* (On) |

The proposed additions to TQ 5 are presented in highlight and underline (in English only).

| TECHNICAL QUESTIONNAIRE | | Page {x} of {y} | Reference Number: | | |
| --- | --- | --- | --- | --- | --- |
|  | |  |  | | |
| 5. Characteristics of the variety to be indicated (the number in brackets refers to the corresponding characteristic in Test Guidelines; please mark the note which best corresponds). | | | | | |
|  | Characteristics | | | Example Varieties | Note |
| **5.1 (2)** | **Plant: height** | | |  |  |
|  | very short | | |  | 1[ ] |
|  | very short to short | | |  | 2[ ] |
|  | short | | | Big Power | 3[ ] |
|  | short to medium | | |  | 4[ ] |
|  | medium | | | Maxifort | 5[ ] |
|  | medium to tall | | |  | 6[ ] |
|  | tall | | | Beaufort | 7[ ] |
|  | tall to very tall | | |  | 8[ ] |
|  | very tall | | |  | 9[ ] |
| **5.2 (8)** | **Leaf: intensity of green color** | | |  |  |
|  | very light | | |  | 1[ ] |
|  | very light to light | | |  | 2[ ] |
|  | light | | |  | 3[ ] |
|  | light to medium | | |  | 4[ ] |
|  | medium | | |  | 5[ ] |
|  | medium to dark | | |  | 6[ ] |
|  | dark | | | Maxifort | 7[ ] |
|  | dark to very dark | | |  | 8[ ] |
|  | very dark | | |  | 9[ ] |
| **5.3 (11)** | **Fruit: green shoulder** | | |  |  |
|  | absent | | |  | 1[ ] |
|  | present | | | Big Force, Maxifort | 9[ ] |
|  | Characteristics | | | Example Varieties | Note |
| **5.4 (14)** | **Fruit: conspicuousness of meridian stripes** | | |  |  |
|  | very weak | | | He Wolf | 1[ ] |
|  | weak | | | Popeye | 2[ ] |
|  | medium | | | Body | 3[ ] |
|  | strong | | | Vigomax | 4[ ] |
|  | very strong | | |  | 5[ ] |
| **5.5 (16)** | **Fruit: size** | | |  |  |
|  | not developed or very small | | | RT303 | 1[ ] |
|  | very small to small | | |  | 2[ ] |
|  | small | | | Body, Optifort | 3[ ] |
|  | small to medium | | |  | 4[ ] |
|  | medium | | | Emperador | 5[ ] |
|  | medium to large | | |  | 6[ ] |
|  | large | | | Titron | 7[ ] |
|  | large to very large | | |  | 8[ ] |
|  | very large | | |  | 9[ ] |
| **5.6 (17)** | **Fruit: shape in longitudinal section** | | |  |  |
|  | broad oblate | | | He-Wolf | 1[ ] |
|  | narrow oblate | | | Gladiator | 2[ ] |
|  | circular | | | Maxifort | 3[ ] |
|  | obovate | | |  | 4[ ] |
| **5.7 (18)** | **Fruit: number of locules** | | |  |  |
|  | only two | | | Maxifort | 1[ ] |
|  | two and three | | |  | 2[ ] |
| **5.8 (19)** | **Fruit: color at maturity** | | |  |  |
|  | green | | | Big Force | 1[ ] |
|  | yellowish | | | Vigomax | 2[ ] |
|  | orangish | | | Titron | 3[ ] |
|  | reddish | | | Brigeor | 4[ ] |
|  | Characteristics | | | Example Varieties | Note |
| **5.9 (21)** | **Autonecrosis** | | |  |  |
|  | absent | | | Maxifort | 1[ ] |
|  | present | | | Body | 9[ ] |
| **5.10 (22)** | **Resistance to *Meloidogyne incognita* (Mi)** | | |  |  |
|  | susceptible | | | Bruce | 1[ ] |
|  | moderately resistant | | |  | 2[ ] |
|  | highly resistant | | | Emperador | 3[ ] |
| **5.11 (23)** | **Resistance to *Verticillium* sp*.* (Va and Vd) *-* Race 0** | | |  |  |
|  | absent | | |  | 1[ ] |
|  | present | | | Bruce, Emperador,  King Kong | 9[ ] |
|  | not tested | | |  | [ ] |
| **5.12 (24.1)** | **Resistance to *Fusarium oxysporum* f. sp*. lycopersici* (Fol) - Race 0EU/1US** | | |  |  |
|  | absent | | |  | 1[ ] |
|  | present | | | Emperador | 9[ ] |
|  | not tested | | |  | [ ] |
| **5.13 (24.2)** | **Resistance to *Fusarium oxysporum* f. sp*. lycopersici* (Fol) - Race 1EU/2US** | | |  |  |
|  | absent | | |  | 1[ ] |
|  | present | | | Emperador | 9[ ] |
|  | not tested | | |  | [ ] |
| **5.14 (24.3)** | **Resistance to *Fusarium oxysporum* f. sp*. lycopersici* (Fol) - Race 2EU/3US** | | |  |  |
|  | absent | | | Emperador | 1[ ] |
|  | present | | | Colosus | 9[ ] |
| **5.15 (25)** | **Resistance to** ***Fusarium oxysporum* f. sp*. radicis-lycopersici* (Forl)** | | |  |  |
|  | absent | | | Kemerit | 1[ ] |
|  | present | | | Emperador | 9[ ] |
|  | Characteristics | | | Example Varieties | Note |
| **5.16 (26.1)** | **Resistance to *Passalora fulva* (Pf) (ex *Fulvia fulva*) – Race 0** | | |  |  |
|  | absent | | | King Kong | 1[ ] |
|  | present | | | Bruce | 9[ ] |
|  | not tested | | |  | [ ] |
| **5.17 (26.2)** | **Resistance to *Passalora fulva* (Pf) (ex *Fulvia fulva*) – Group A** | | |  |  |
|  | absent | | | King Kong | 1[ ] |
|  | present | | | Vitalfort | 9[ ] |
|  | not tested | | |  | [ ] |
| **5.18 (26.3)** | **Resistance to *Passalora fulva* (Pf) (ex *Fulvia fulva*) – Group B** | | |  |  |
|  | absent | | | King Kong | 1[ ] |
|  | present | | | Bruce | 9[ ] |
|  | not tested | | |  | [ ] |
| **5.19 (26.4)** | **Resistance to *Passalora fulva* (Pf) (ex *Fulvia fulva*) – Group C** | | |  |  |
|  | absent | | |  | 1[ ] |
|  | present | | | Vitalfort | 9[ ] |
|  | not tested | | |  | [ ] |
| **5.20 (26.5)** | **Resistance to *Passalora fulva* (Pf) (ex *Fulvia fulva*) – Group D** | | |  |  |
|  | absent | | | King Kong | 1[ ] |
|  | present | | | Bruce | 9[ ] |
|  | not tested | | |  | [ ] |
| **5.21 (26.6)** | **Resistance to *Passalora fulva* (Pf) (ex *Fulvia fulva*) – Group E** | | |  |  |
|  | absent | | | Bruce, King Kong | 1[ ] |
|  | present | | | Vitalfort | 9[ ] |
|  | not tested | | |  | [ ] |
| **5.22 (27.1)** | **Resistance to Tomato mosaic virus (ToMV) – Strain 0** | | |  |  |
|  | absent | | |  | 1[ ] |
|  | present | | | Emperador | 9[ ] |
|  | not tested | | |  | [ ] |
|  | Characteristics | | | Example Varieties | Note |
| **5.23 (27.2)** | **Resistance to Tomato mosaic virus (ToMV) – Strain 1** | | |  |  |
|  | absent | | |  | 1[ ] |
|  | present | | | Emperador | 9[ ] |
|  | not tested | | |  | [ ] |
| **5.24 (27.3)** | **Resistance to Tomato mosaic virus (ToMV) – Strain 2** | | |  |  |
|  | absent | | |  | 1[ ] |
|  | present | | | Emperador | 9[ ] |
|  | not tested | | |  | [ ] |
| **5.25 (28)** | **Resistance to *Pyrenochaeta lycopersici* (Pl)** | | |  |  |
|  | absent | | |  | 1[ ] |
|  | present | | | Emperador | 9[ ] |
|  | not tested | | |  | [ ] |
| **5.26 (29)** | **Resistance to *Stemphylium* spp. (Ss)** | | |  |  |
|  | absent | | | Big Power | 1[ ] |
|  | present | | | Body | 9[ ] |
|  | not tested | | |  | [ ] |
| **5.27 (30)** | **Resistance to Tomato yellow leaf curl virus (TYLCV)** | | |  |  |
|  | absent | | | Big Power | 1[ ] |
|  | present | | |  | 9[ ] |
|  | not tested | | |  | [ ] |
| **5.28 (31)** | **Resistance to Tomato spotted wilt virus (TSWV)** | | |  |  |
|  | absent | | | Emperador | 1[ ] |
|  | present | | | Enpower | 9[ ] |
|  | not tested | | |  | [ ] |
| **5.29 (32)** | **Resistance to *Oidium neolycopersici* (On)** | | |  |  |
|  | absent | | |  | 1[ ] |
|  | present | | | Multifort | 9[ ] |
|  | not tested | | |  | [ ] |

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1. held in Antalya, Türkiye, from May 1 to 5, 2023 [↑](#footnote-ref-2)