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INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS

GENEVA

# **TECHNICAL WORKING PARTY FOR VEGETABLES**

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WORKING PAPER ON TEST GUIDELINES FOR CHINESE CHIVES (REVISION)

Document prepared by experts from Japan

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#### I. <u>Subject of these Guidelines</u>

These Test Guidelines apply to all varieties of Allium tuberosum Rottler.

### II. Material Required

1. The competent authorities decide when, where and in what quantity and quality the plant material or seed required for testing the variety is to be delivered. Applicants submitting material from a State other than that in which the testing takes place must make sure that all customs formalities are complied with. The minimum quantity of plant material or seed to be supplied by the application in one or several samples should be:

- (a) Seed propagated varieties: 20g of seed
- (b) Vegetatively propagated varieties: 100 plants

The quality of seed to be delivered should not be below the standards of seeds for certification or marketing in the country concerned, especially in regard to germination capacity and moisture content.

2. The plant material must not have undergone any treatment unless the competent authorities allow or request such treatment. If it has been treated, full details of the treatment must be given.

#### III. Conduct of Tests

1. The minimum duration of tests should be normally two independent growing cycles.

2. The tests should normally be conducted at one place. If any important characteristics of the variety cannot be seen at that place, the variety may be tested at an additional place.

3. The tests should be carried out under conditions ensuring normal growth. The size of the plots should be such that plants or parts of plants may be removed for measuring and counting without prejudice to the observations which must be made up to the end of the growing period. As a minimum, each test should include a total of 60 plants for which should be divided between two or more replicates. Separate plots for observation and measuring can only be used if they have been subject to similar environmental conditions.

4. Additional tests for special purposes may be established.

#### IV. Methods and Observations

1. All observations determined by measuring or counting should be made on 20 plants or parts of 20 plants.

2. For the assessment of uniformity of a population standard of 1% with an acceptance probability at least 95% should be applied. In the case of a sample size of 60 plants the maximum number of off-type allowed would be 2.

3. Unless otherwise indicate, all observations on the plant and the leaf should be made before harvest maturity

4. All observations on the flower stalk should be made at time of full flowering.

### V. <u>Grouping of Varieties</u>

1. The collection to be grown should be divided into groups to facilitate the assessment of distinctness. Characteristics which are suitable for grouping purposes are those which are known from experience not to vary, or to vary only slightly, within a variety and which in their various states are fairly evenly distributed within the collection.

2. It is recommended that the competent authorities use the following characteristics for grouping varieties:

- (a) Plant: growth habit (characteristic 1)
- (b) Leaf blade: width (characteristic 5)
- (c) Leaf sheath: shape in cross section (characteristic 11)

#### VI. Characteristics and Symbols

1. To assess distinctness, uniformity and stability, the characteristics and their states as given in the Table of Characteristics should be used.

2. Notes (1 to 9), for the purposes of electronic data processing, are given opposite the states of expression for different characteristic.

#### 3. <u>Legend</u>

(\*) Characteristics that should be used every growing period for the examinations of all varieties and should always be included in the descriptions of the variety, except when the state of expression of a preceding characteristic or regional environmental conditions render this impossible.

(+) See Explanations on the Table of Characteristics in Chapter VIII.

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|                         | English                          | français | deutsch | español | Example Varieties<br>Exemples<br>Beispielssorten<br>Variedades ejemplo | Note/<br>Nota |
|-------------------------|----------------------------------|----------|---------|---------|--|---------------|
| 1.<br>(*)<br>(+)        | Plant : growth                   | habit    |         |         |  |               |
|                         | erect                            |          |         |         | Tairyou  | 3             |
|                         | semi-erect                       |          |         |         | Green Belt   | 5             |
|                         | spreading                        |          |         |         |  | 7             |
| 2.<br>(*)<br>(+)        | Plant: height                    |          |         |         |  |               |
|                         | low                              |          |         |         |  | 3             |
|                         | medium                           |          |         |         | Green Belt   | 5             |
|                         | tall                             |          |         |         |  | 7             |
| 3.                      | Plant: number<br>tillered plants |          |         |         |  |               |
|                         | few                              |          |         |         | Tairyou  | 3             |
|                         | medium                           |          |         |         |  | 5             |
|                         | many                             |          |         |         | Green Belt   | 7             |
| <b>4.</b><br>(*)<br>(+) | Leaf blade: le                   | ngth     |         |         |  |               |
|                         | short                            |          |         |         |  | 3             |
|                         | medium                           |          |         |         | Green Belt   | 5             |
|                         | long                             |          |         |         |  | 7             |
| 5.<br>(*)<br>(+)        | Leaf blade: wi                   | idth     |         |         |  |               |
|                         | narrow                           |          |         |         |  | 3             |
|                         | medium                           |          |         |         | Green Belt   | 5             |
|                         | broad                            |          |         |         |  | 7             |
|                         |                                  |          |         |         |  |               |

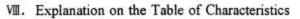
## VII. Table of Characteristics/Tableau des caractères/Merkmalstabelle/Tabla de caracteres

|                   | English                                | français | deutsch | español | Example Varieties<br>Exemples<br>Beispielssorten<br>Variedades ejemplo | Note/<br>Nota |
|-------------------|--|----------|---------|---------|--|---------------|
| 6.                | Leaf blade: intens<br>of green color   | sity     |         |         |  |               |
|                   | light                                  |          |         |         | Tairyou  | 3             |
|                   | green                                  |          |         |         | Green Belt   | 5             |
|                   | dark                                   |          |         |         |  | 7             |
| 7.                | Leaf blade:<br>glossiness              |          |         |         |  |               |
|                   | weak                                   |          |         |         |  | 3             |
|                   | medium                                 |          |         |         | Green Belt   | 5             |
|                   | strong                                 |          |         |         |  | 7             |
| 8.                | Leaf blade:<br>thickness               |          |         |         |  |               |
|                   | thin                                   |          |         |         |  | 3             |
|                   | medium                                 |          |         |         | Green Belt   | 5             |
|                   | thick                                  |          |         |         | Tairyou  | 7             |
| 9.                | Leaf blade:<br>drooping                |          |         |         |  |               |
|                   | slight                                 |          |         |         |  | 3             |
|                   | medium                                 |          |         |         | Green Belt   | 5             |
|                   | broad                                  |          |         |         |  | 7             |
| 10.               | Leaf blade: bloon                      | n        |         |         |  |               |
|                   | few                                    |          |         |         |  | 3             |
|                   | medium                                 |          |         |         | Green Belt   | 5             |
|                   | many                                   |          |         |         |  | 7             |
| 11.<br>(*)<br>(+) | Leaf sheath : shap<br>in cross section | e        |         |         |  |               |
|                   | oval                                   |          |         |         | Green Belt   | 1             |
|                   | round                                  |          |         |         |  | 2             |

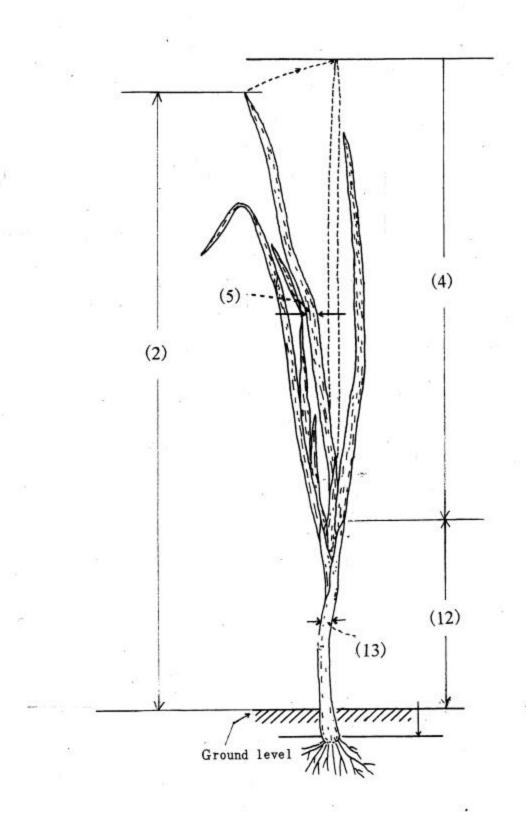
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|------|---|
|------|---|

|                   | English  | français | deutsch | español | Example Varieties<br>Exemples<br>Beispielssorten<br>Variedades ejemplo | Note/<br>Nota |
|-------------------|--|----------|---------|---------|--|---------------|
| 12.<br>(*)<br>(+) | Leaf sheath : leng                                   | th       |         |         |  |               |
|                   | short  |          |         |         |  | 3             |
|                   | medium   |          |         |         | Green Belt   | 5             |
|                   | long   |          |         |         |  | 7             |
| 13.<br>(*)<br>(+) | Leaf sheath :<br>thickness                           |          |         |         |  |               |
|                   | thin   |          |         |         |  | 3             |
|                   | medium   |          |         |         | Green Belt   | 5             |
|                   | thick  |          |         |         |  | 7             |
| 14.<br>(*)        | Leaf sheath : color                                  | ŗ        |         |         |  |               |
|                   | white  |          |         |         |  | 1             |
|                   | milky white  |          |         |         |  | 2             |
|                   | greenish   |          |         |         | Green Belt   | 3             |
|                   | redish   |          |         |         |  | 4             |
| 15.               | Leaf sheath :<br>number of leaves<br>per leaf sheath |          |         |         |  |               |
|                   | few  |          |         |         |  | 3             |
|                   | medium   |          |         |         | Green Belt   | 5             |
|                   | many   |          |         |         |  | 7             |
| 16.               | Flower stalk: leng                                   | gth      |         |         |  |               |
|                   | short  |          |         |         |  | 1             |
|                   | medium   |          |         |         | Tender Pole  | 2             |
|                   | long   |          |         |         |  | 3             |

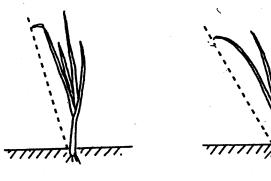
|                   | English                   | français | deutsch | español | Example Varieties<br>Exemples<br>Beispielssorten<br>Variedades ejemplo | Note/<br>Nota |
|-------------------|---------------------------|----------|---------|---------|--|---------------|
| 17.               | Flower stalk:<br>diameter |          |         |         |  |               |
|                   | small                     |          |         |         |  | 3             |
|                   | medium                    |          |         |         | Tender Pole  | 5             |
|                   | large                     |          |         |         |  | 7             |
| 18.               | Flower stalk:<br>number   |          |         |         |  |               |
|                   | few                       |          |         |         |  | 3             |
|                   | medium                    |          |         |         | Green Belt   | 5             |
|                   | many                      |          |         |         | Tender Pole  | 7             |
| <b>19.</b><br>(*) | Time of bolting           |          |         |         |  |               |
|                   | early                     |          |         |         | Tender Pole  | 3             |
|                   | medium                    |          |         |         | Green Belt   | 5             |
|                   | late                      |          |         |         |  | 7             |

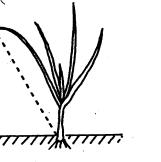


Ad. 2.4.5.12.13 : Plant: height (2), Leaf blade: length (4), Leaf blade: width (5) Leaf sheath: length (12), Leaf sheath: thickness (13)



Ad.1: Plant: growth habit





erect

semi-erect

spreading

Ad.12: Leaf sheath: shape in cross section



oval



round

## IX. Literature

## [Still to be prepared]

## X. Technical Questionnaire

[Still to be prepared]

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