

UPOV

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**INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS**  
GENEVA

**DRAFT****HYDRANGEA**

UPOV Code: HYDRN

*Hydrangea* L.**GUIDELINES****FOR THE CONDUCT OF TESTS****FOR DISTINCTNESS, UNIFORMITY AND STABILITY***prepared by experts from France**to be considered by the**Technical Working Party for Ornamental Plants and Forest Trees**at its forty-first session, to be held in Wageningen, Netherlands, from June 9 to 13, 2008*

Alternative Names:\*

| <i>Botanical name</i>           | <i>English</i> | <i>French</i> | <i>German</i> | <i>Spanish</i>         |
|---------------------------------|----------------|---------------|---------------|------------------------|
| <i>Hydrangea macrophylla</i> L. | Hydrangea      | Hortensia     | Hortensie     | Hortensia,<br>Hidranea |

The purpose of these guidelines ("Test Guidelines") is to elaborate the principles contained in the General Introduction (document TG/1/3), and its associated TGP documents, into detailed practical guidance for the harmonized examination of distinctness, uniformity and stability (DUS) and, in particular, to identify appropriate characteristics for the examination of DUS and production of harmonized variety descriptions.

**ASSOCIATED DOCUMENTS**

These Test Guidelines should be read in conjunction with the General Introduction and its associated TGP documents.

\* These names were correct at the time of the introduction of these Test Guidelines but may be revised or updated. [Readers are advised to consult the UPOV Code, which can be found on the UPOV Website ([www.upov.int](http://www.upov.int)), for the latest information.]

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## I. Subject of these Guidelines

These Test Guidelines apply to all vegetatively propagated varieties of Hydrangea L. (Saxifragaceae). They have been established mainly on the basis of varieties of Hydrangea macrophylla (Thunb. ex Murr.) Ser., Hydrangea anomala D. Don ssp. petiolaris (Sieb. et Zucc.) McClintock, Hydrangea paniculata Sieb., Hydrangea quercifolia Bartr. and Hydrangea aspera D. Don, but they may also be used for other species of Hydrangea L.

## II. Material Required

1. The competent authorities decide when, where and in what quantity and quality the plant material 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. As a minimum, the following quantity of plant material is recommended:

For the first cycle: As a minimum, each test should include a total of 8 plants (mother plants). For the second cycle each test should include a total of 5 mother plants and 8 daughter plants derived from, and representing the original mother plants characteristics, separate plots for observation and for measuring can only be used if they have been subject to similar environmental conditions.

## III. Conduct of Tests

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

The test should be carried out under the following growing conditions:

The plants should be cultivated outside under shade. They spend winter in an unheated shelter, protected from frost. They should be cultivated in a standard substrate. During summer they should receive fertilized irrigation.

During the spring of the first year, cuttings should be taken from the mother plants which have been delivered during the previous autumn. These cuttings (daughter plants) should be cultivated first in the greenhouse, then outside in the shade. They should be pinched once or twice.

In the second cycle, mother plants and daughter plants should be grown outside in the shade alongside each other.

~~1. The test requires in general two growing periods of which the first one is an establishment cycle. If distinctness and/or homogeneity cannot be sufficiently established in the second growing period, the test should be extended for a third growing period.~~

~~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 test should be carried out in the open air or under glass under conditions ensuring normal growth. The growing conditions in the open air should be as follows:~~

Planting time: From end of October to March (Northern Hemisphere)

Soil: Acid peat

Fertilization: Avoid too much acidity in soil which might be caused by aluminium ions and by fertilization too rich in potassium

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 5 plants. Separate plots for observation and for 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. Experience in testing homogeneity and stability has shown that, in the case of vegetatively propagated hydrangea varieties, it is sufficient to determine whether the plant material supplied is uniform in the states of the characteristics observed and that neither mutations nor mixtures have occurred.

2. All observations determined by measurement or counting should be made on the 8 mother plants or 8 parts taken from 8 mother plants during the first cycle and on 8 daughter plants or 8 parts taken from 8 daughter plants during the second cycle.

3. All observations on the flower should be made on terminal inflorescences on one year old shoots when stamens are visible.

4. All observations on the stem should be made on shoots from that year's growth.

5. All observations on the leaf should be made on fully developed leaves on the third pair of leaves below the terminal vegetative bud at the end of the summer.

5. Because daylight varies, color determinations made against a color chart should be made either in a suitable cabinet providing artificial daylight or in the middle of the day in a room without direct sunlight. The spectral distribution of the illuminant for artificial daylight should conform with the CIE Standard of Preferred Daylight D 6500 and should fall within the tolerances set out in British Standard 950, Part I. These determinations should be made with the plant part placed against a white background.

6. The variety description should indicate whether the test has been conducted in the open air or under glass.

## V. Grouping of Varieties

1. The collection to be grown should be divided into groups to facilitate the assessment of distinctness. The grouping should first be made according to the species.

2. In addition, suitable characteristics 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. It is recommended that the competent authorities use the following characteristics for further grouping of varieties:

- a) Stem : fasciation (characteristic 3)
- b) Stem : color (characteristic 4)
- c) Inflorescence : shape (characteristic 21)
- d) Inflorescence : conspicuousness of fertile flowers (characteristic 24)
- e) Sterile flower : intensity of coloration (characteristic 27)
- f) Sterile flower : number of colors (characteristic 28)
- g) Sterile flower : type (characteristic 30)

## VI. Characteristics and Symbols

1. To assess distinctness, homogeneity and stability, the characteristics and their states as given in the three UPOV working languages 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 the different characteristics.

3. Legend:

(\*) Characteristics which should always be included in the description of the variety, except when the state of expression of a preceding characteristic renders this impossible.

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

\* \* \* \* \*

7. 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 |
|-----------|---|---|--|---------|---|---------------|
| <b>1.</b> | <b>Plant: growth habit</b>  | <b>Plante : port</b>  |  |         |   |               |
|           | upright   | dressé  |  |         | Merveille   | 1             |
|           | climbing  | grimpant  |  |         | Nana Yakushmanum  | 2             |
|           | drooping  | retombant   |  |         |   | 3             |
| <b>2.</b> | <b><u>Non-climbing</u><br/>varieties only: Plant:<br/>natural height<br/>(when flowering)</b> | <b><u>Variété à port non</u><br/><u>grimpant</u><br/><u>seulement</u> : Plante :<br/>hauteur (à la<br/>floraison)</b> |  |         |   |               |
|           | short   | courte  |  |         | Hörnli  | 3             |
|           | medium  | moyenne   |  |         | Merveille   | 5             |
|           | tall  | haute   |  |         | Maman   | 7             |
| <b>3.</b> | <b>Stem: fasciation</b>   | <b>Tige : fasciation</b>  | <i>Comment: FR proposal:<br/>one shoot is enough for<br/>presence</i>  |         |   |               |
|           | absent  | absente   |  |         | Merveille   | 1             |
|           | present   | présente  |  |         | Domotoi   | 9             |
| <b>4.</b> | <b>Stem: color</b>  | <b>Tige : couleur</b>   | <i>Comment: FR new<br/>proposal: Stem: black<br/>color (on mature stem)<br/>1: totally absent<br/>2: partly present<br/>3: totally present<br/>Comment:<br/>NZ proposal<br/>To add others states:<br/>Orange brown /<br/>yellow brown<br/>(reference varieties?)</i> |         |   |               |
|           | green   | verte   |  |         | Merveille   | 1             |
|           | black   | noire   |  |         | ‘Nigra’   | 2             |
| <b>5.</b> | <b>Stem: lenticels in<br/>autumn</b>  | <b>Tige : lenticelles en<br/>automne</b>  | <i>Comment: FR proposal:<br/>5 (autumn is the best<br/>period to observe this<br/>char.)</i>   |         |   |               |
|           | absent  | absentes  |  |         | Zorro   | 1             |
|           | present   | présentes   |  |         | Merveille   | 9             |

|            | English                                    | français  | deutsch                        | español | Example Varieties/<br>Exemples/<br>Beispielssorten/<br>Variedades ejemplo | Note/<br>Nota |
|------------|--|---|--------------------------------|---------|---|---------------|
| <b>6.</b>  | <b>Stem: color of lenticels</b>            | <b>Tige : couleur des lenticelles</b>               | <i>Comment: FR proposal: 6</i> |         |   |               |
|            | white                                      | blanche   |                                |         | Paniculata grandiflora  | 1             |
|            | black                                      | noire   |                                |         | Merveille   | 2             |
|            | red  | rouge   |                                |         | Leuchtfeuer   | 3             |
| <b>7.</b>  | <b>Leaf blade: length</b>                  | <b>Feuille : longueur</b>                           |                                |         |   |               |
|            | short                                      | courte  |                                |         | Hörnli  | 3             |
|            | medium                                     | moyenne   |                                |         | Rosita  | 5             |
|            | long                                       | longue  |                                |         | Merveille   | 7             |
| <b>8.</b>  | <b>Leaf blade: main color</b>              | <b>Feuille : couleur principale</b>                 |                                |         |   |               |
|            | yellow                                     | jaune   |                                |         | Ogonda  | 1             |
|            | green                                      | vert  |                                |         | Merveille   | 2             |
|            | purple                                     | pourpre   |                                |         | Merveille Sanguinea   | 3             |
| <b>9.</b>  | <b>Leaf blade: intensity of main color</b> | <b>Feuille : intensité de la couleur principale</b> |                                |         |   |               |
|            | light                                      | claire  |                                |         | Rapa  | 3             |
|            | medium                                     | moyenne   |                                |         | Merveille   | 5             |
|            | dark                                       | foncée  |                                |         | Rambo   | 7             |
| <b>10.</b> | <b>Leaf blade: variegation</b>             | <b>Feuille : panachure</b>                          |                                |         |   |               |
|            | absent                                     | absente   |                                |         | Merveille   | 1             |
|            | present                                    | présente  |                                |         | Tricolor  | 9             |
| <b>11.</b> | <b>Leaf blade: secondary color</b>         | <b>Feuille : couleur secondaire</b>                 |                                |         |   |               |
|            | white only                                 | seulement blanche                                   |                                |         | Variegata   |               |
|            | yellow only                                | seulement jaune                                     |                                |         | Lemen wave  |               |
|            | white and yellow                           | blanche et jaune                                    |                                |         | Tricolor  |               |

|            | English  | français  | deutsch  | español | Example Varieties/<br>Exemples/<br>Beispielssorten/<br>Variedades ejemplo | Note/<br>Nota |
|------------|--|---|--|---------|---|---------------|
| <b>12.</b> | <b>Leaf blade:<br/>glossiness of upper<br/>side</b>              | <b>Feuille : brillance de<br/>la face supérieure</b>                    |  |         |   |               |
|            | absent   | absente   |  |         | Maman   | 1             |
|            | present  | présente  |  |         | Merveille   | 9             |
| <b>13.</b> | <b>Leaf: blistering</b>  | <b>Feuille : cloqûre</b>  | <i>Comment: FR proposal<br/>new characteristic:<br/>blistering</i>                       |         |   |               |
|            | weak   | faible  |  |         | Mme Mouillère   |               |
|            | medium   | moyenne   |  |         | Rosita  |               |
|            | strong   | forte   |  |         | Merveille   |               |
| <b>14.</b> | <b>Leaf blade: lobbing</b>                                       | <b>Feuille : lobe</b>   | <i>Comment: FR new<br/>proposal 14 to place<br/>before 15 (instead of<br/>before 20)</i> |         |   |               |
|            | absent   | absente   |  |         | Merveille   | 1             |
|            | present  | présente  |  |         | H. Quercifolia<br>“harmony”   | 9             |
| <b>15.</b> | <b>Leaf blade: shape<br/>(only for no lobbing<br/>varieties)</b> | <b>Feuille : forme<br/>(seulement pour les<br/>feuilles non lobées)</b> |  |         |   |               |
|            | circular   | circulaire  |  |         | Rosita  | 1             |
|            | elliptic   | elliptique  |  |         | Blue Ware   | 2             |
|            | oval   | ovale   |  |         | Merveille   | 3             |
| <b>16.</b> | <b>Leaf blade: shape of<br/>apex</b>                             | <b>Feuille : forme de<br/>l’apex</b>                                    | <i>Comment: FR proposal:<br/>to delete. To add two<br/>others char.: 18 and 17</i>       |         |   |               |
|            | acuminate  | acuminée  |  |         | Madame Plumecoq,<br>Raymond Draps   | 1             |
|            | acute  | pointue   |  |         | Sea Foam  | 2             |
|            | mucronate  | mucronée  |  |         |   | 3             |
|            | rounded  | ronde   |  |         |   | 4             |
| <b>17.</b> | <b>Mucron</b>  | <b>Mucron</b>   |  |         |   |               |
|            | absent   | absent  |  |         | Mignon  | 1             |
|            | present  | présent   |  |         | Merveille   | 9             |

|            | English   | français  | deutsch  | español | Example Varieties/<br>Exemples/<br>Beispielssorten/<br>Variedades ejemplo | Note/<br>Nota |
|------------|---|---|--|---------|---|---------------|
| <b>18.</b> | <b>Mucron: length</b>   | <b>Mucron : longueur</b>  |  |         |   |               |
|            | short   | courte  |  |         | Mousmree  | 3             |
|            | medium  | moyenne   |  |         | Merveille   | 5             |
|            | long  | longue  |  |         | Soeur Thérèse   | 7             |
| <b>19.</b> | <b>Leaf blade: shape of base</b>                                | <b>Feuille : forme de la base</b>                                   |  |         |   |               |
|            | acute   | pointue   |  |         | Europa  | 1             |
|            | obtuse  | obtuse  |  |         | Hamburg, Bosco  | 2             |
|            | rounded   | ronde   |  |         | Rosabelle   | 3             |
| <b>20.</b> | <b>Leaf blade: depth of incisions</b>                           | <b>Feuille : profondeur des incisions</b>                           | <i>Comment: FR proposal: char 14 has been placed before 15</i>                   |         |   |               |
|            | fine  | fine  |  |         | King George   | 3             |
|            | medium  | moyenne   |  |         | Europa  | 5             |
|            | coarse  | grossière   |  |         | Altona  | 7             |
| <b>21.</b> | <b>Inflorescence: shape</b>                                     | <b>Inflorescence : forme</b>  |  |         |   |               |
|            | flattened   | aplatie   |  |         | Mousmée, Sea Foam   | 1             |
|            | globular  | globuleuse  |  |         | Merveille   | 2             |
|            | conical   | conique   |  |         | <i>H.paniculata, quercifolia</i>  | 3             |
| <b>22.</b> | <b>Inflorescence: diameter for flattened and globular types</b> | <b>Inflorescence : diamètre pour les types aplatis et globuleux</b> | <i>Comment: NZ proposal: to add a new char. Length for conical types (FR ok)</i> |         |   |               |
|            | small   | petit   |  |         | Hörnli  | 3             |
|            | medium  | moyen   |  |         | Merveille   | 5             |
|            | large   | grand   |  |         | Maman   | 7             |

|            | English  | français   | deutsch  | español | Example Varieties/<br>Exemples/<br>Beispielssorten/<br>Variedades ejemplo | Note/<br>Nota |
|------------|--|--|--|---------|---|---------------|
| <b>23.</b> | <b>Inflorescence: length for conical types</b>   | <b>Inflorescence : longueur pour les types coniques</b>  |  |         |   |               |
|            | short  | courte   |  |         |   | 3             |
|            | medium   | moyenne  |  |         |   | 5             |
|            | long   | longue   |  |         |   | 7             |
| <b>24.</b> | <b>Inflorescence: conspicuousness of fertile flowers</b>   | <b>Inflorescence : netteté des fleurs fertiles</b>   |  |         |   |               |
|            | inconspicuous  | peu nette  |  |         | Merveille   | 1             |
|            | conspicuous  | nette  |  |         | Mousmée, Sea Foam   | 2             |
| <b>25.</b> | <b><u>Only varieties with conspicuous fertile flowers:</u></b><br><b>Inflorescence: arrangement of sterile flowers</b> | <b><u>Seulement pour les variétés à fleurs fertiles nettes :</u></b><br><b>inflorescence : répartition des fleurs stériles</b> | <i>Comment: NZ proposal to replace fertile and sterile flower by large calyx and small calyx</i> |         |   |               |
|            | irregular  | irrégulière  |  |         | Vetchie   | 1             |
|            | in one circle  | en un cercle   |  |         | Tricolor  | 2             |
|            | in two or more circles   | en deux ou plusieurs cercles   |  |         | <i>Japanese variety:</i><br>Jogosaki                                      | 3             |
| <b>26.</b> | <b>Sterile flower: diameter</b>  | <b>Fleur stérile : diamètre</b>  | <i>Comment: FR new proposal to place before char.22</i>  |         |   |               |
|            | small  | petit  |  |         | Hörnli  | 3             |
|            | medium   | moyen  |  |         | Alpenglühén   | 5             |
|            | large  | large  |  |         | Freudenstein  | 7             |
| <b>27.</b> | <b>Sterile flower: intensity of coloration</b>   | <b>Fleur stérile : intensité de la couleur</b>   |  |         |   |               |
|            | absent or very weak  | absente ou très faible   |  |         | Soeur Thérèse   | 1             |
|            | weak   | faible   |  |         | Marie Claire  | 3             |
|            | medium   | moyenne  |  |         | Freudenstein  | 5             |
|            | strong   | forte  |  |         | Doris   | 7             |
|            | very strong  | très forte   |  |         | Leuchtfeuer   | 9             |

|            | English  | français  | deutsch   | español | Example Varieties/<br>Exemples/<br>Beispielssorten/<br>Variedades ejemplo | Note/<br>Nota |
|------------|--|---|---|---------|---|---------------|
| <b>28.</b> | <b>Sterile flower:<br/>number of colors</b>                        | <b>Fleur stérile :<br/>nombre de couleurs</b>                     |   |         |   |               |
|            | one  | une   |   |         | Rosita  | 1             |
|            | more than one  | plusieurs   |   |         | Sensation 75  | 2             |
| <b>29.</b> | <b>Sterile flower: main<br/>color</b>                              | <b>Fleur stérile :<br/>couleur principale</b>                     | <p><i>Comment: NZ proposal:<br/>Color of large calyx:<br/>main color is Ok, but<br/>where is the secondary<br/>color?<br/>Bicolor varieties are not<br/>covered enough<br/>To consider repartition<br/>of secondary color (only<br/>marginal, marginal<br/>zone)</i></p> <p><i>Comment: FR proposal:<br/>Sterile flower: color<br/>except white</i></p> |         |   |               |
|            | RHS Colour Chart<br>(indicate reference<br>number)                 | Code RHS des<br>couleurs (indiquer le<br>numéro de référence)     |   |         |   |               |
| <b>30.</b> | <b>Sterile flower: type</b>  | <b>Fleur stérile : type</b>                                       |   |         |   |               |
|            | single   | simple  |   |         | Merveille   | 1             |
|            | double   | double  |   |         | Amethyst, Izu-no-Hana   | 2             |
| <b>31.</b> | <b>Sterile flower:<br/>overlapping of<br/>sepals</b>               | <b>Fleur stérile :<br/>chevauchement des<br/>pétales</b>          |   |         |   |               |
|            | absent   | absent  |   |         | Hörnli  | 1             |
|            | present  | présent   |   |         | Rosita  | 9             |
| <b>32.</b> | <b>Sterile flower:<br/>degree of<br/>overlapping of<br/>sepals</b> | <b>Fleur stérile : degré<br/>de chevauchement<br/>des pétales</b> |   |         |   |               |
|            | weak   | faible  |   |         | Madame Plumecoq   | 3             |
|            | medium   | moyen   |   |         | Bichon  | 5             |
|            | strong   | fort  |   |         | Heinrich Siedel,<br>Madame Gilles Goujon                                  | 7             |

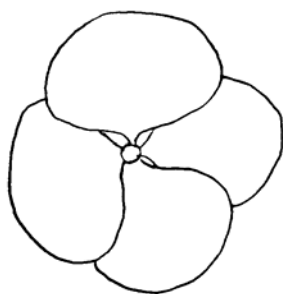
|            | English   | français  | deutsch   | español | Example Varieties/<br>Exemples/<br>Beispielssorten/<br>Variedades ejemplo | Note/<br>Nota |
|------------|---|---|---|---------|---|---------------|
| <b>33.</b> | <b>Sterile flower:<br/>incisions of margin<br/>of sepal</b>   | <b>Fleur stérile :<br/>incisions du bord du<br/>sépal</b>   |   |         |   |               |
| (+)        | absent on all sepals  | absentes sur tous les<br>sépalés  |   |         | Maman, Marveille  | 1             |
|            | present on some<br>sepals   | présentes sur<br>quelques sépalés   |   |         | Gloria  | 2             |
|            | present on all sepals   | présentes sur tous les<br>sépalés   |   |         | Europa  | 3             |
| <b>34.</b> | <b><u>Varieties with<br/>conspicuous fertile<br/>flowers only:</u> Fertile<br/>flower: color of petal</b>       | <b><u>Seulement pour les<br/>variétés à fleurs<br/>fertiles nettes :</u><br/>Fleurs fertiles :<br/><u>couleur des pétales</u></b> | <i>Comment: FR proposal:<br/>to delete this char. To<br/>replace Char34 by 35</i> |         |   |               |
|            | RHS Colour Chart<br>(indicate reference<br>number)  | Code RHS des<br>couleurs (indiquer le<br>numéro de référence)   |   |         |   |               |
| <b>35.</b> | <b>Fertile flower: color<br/>of petal</b>   | <b>Fleur fertile :<br/>couleur des pétales</b>  |   |         |   |               |
|            | white   | blanche   |   |         | Rosalba   | 1             |
|            | pink  | rose  |   |         | Tricolor  | 2             |
|            | purple  | Mauve (pourpre?)  |   |         | Lemen wave  | 3             |
| <b>36.</b> | <b><u>Varieties with<br/>conspicuous fertile<br/>flowers only:</u> Fertile<br/>flower: color of<br/>anthers</b> |   | <i>Comment: FR proposal<br/>to delete this char.</i>                              |         |   |               |
|            | RHS Colour Chart<br>(indicate reference<br>number)  |   |   |         |   |               |
| <b>37.</b> | <b>Time of beginning of<br/>flowering</b>   | <b>Époque de début de<br/>la floraison</b>  |   |         |   |               |
|            | early   | précoce   |   |         | Freudenstein  | 3             |
|            | medium  | moyenne   |   |         | Maman, Marveille  | 5             |
|            | late  | tardive   |   |         | Europa, Hörnli,<br>Magicien   | 7             |

8. Explanations on the Table of Characteristics

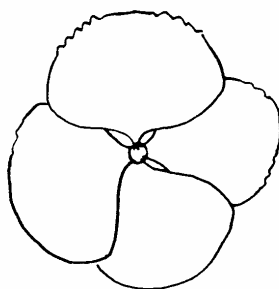
8.1 *Explanations covering several characteristics*

8.2 *Explanations for individual characteristics*

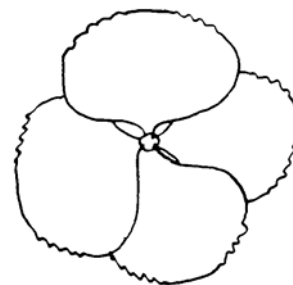
Ad. 33: Sterile flower: incisions of margin of sepal



1  
absent on all sepals



2  
present on some sepals



3  
present on all sepals

## 9. Literature

Bertrand H., Becue I., Relion D., 2007 : INH, BRG. Ressources génétiques du genre Hydrangea L., collection nationale, texte et iconographie. Edition Janv 2007 (245 p).

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BRG, INH, Bertrand H., 2007: Répertoire des ressources génétiques Hydrangea. Réseau Hydrangea 2006 édition: février

Guerin V. Coord., 2002: Hydrangea: acquisitions nouvelles et applications. INRA Editions (133 p).

Haworth-Booth, M., 1984: The Hydrangeas. 5th Ed., Constable, London, GB (217p).

Lawson-Hall T. & Rothera B. 1995: Hydrangeas a Gardeners' Guide. Edition B.T. Batsford Ltd. London (160p).

Mohring, H.K., Kuhlen, H., Bosse, G., 1956: Die Hortensien. Verlag Dr. Rudolf Georgi, Aachen, DE (238p).

Rehder, A.: "Manual of Cultivated Trees and Shrubs," 2nd Ed., Macmillan Company, New York, USA (996 p.).

Vidalie, H., 1986: Les productions florales. 4e éd., Edition J.B. Baillière, Paris, FR

1. Technical Questionnaire

|   |   |   |
|---|---|---|
| TECHNICAL QUESTIONNAIRE   | Page {x} of {y}                           | Reference Number:   |
|   |   | Application date:<br>(not to be filled in by the applicant) |
| TECHNICAL QUESTIONNAIRE<br>to be completed in connection with an application for plant breeders' rights |   |   |
| 1. Subject of the Technical Questionnaire   |   |   |
| 1.1 Botanical Name  | <input type="text" value="Hydrangea L."/> |   |
| 1.2 Common Name   | <input type="text" value="Hydrangea"/>    |   |
| 2. Applicant  |   |   |
| Name  | <input type="text"/>                      |   |
| Address   | <input type="text"/>                      |   |
| Telephone No.   | <input type="text"/>                      |   |
| Fax No.   | <input type="text"/>                      |   |
| E-mail address  | <input type="text"/>                      |   |
| Breeder (if different from applicant)   | <input type="text"/>                      |   |
| 3. Proposed denomination and breeder's reference  |   |   |
| Proposed denomination<br>(if available)   | <input type="text"/>                      |   |
| Breeder's reference   | <input type="text"/>                      |   |

| TECHNICAL QUESTIONNAIRE  | Page {x} of {y} | Reference Number: |
|--|-----------------|-------------------|
| <p>#4. Information on the breeding scheme and propagation of the variety</p> <p>4.1 Breeding scheme</p> <p>Variety resulting from:</p> <p>4.1.1 Seeding [ ]<br/>(please state parent varieties)</p> <p>4.1.2 Mutation [ ]<br/>(please state parent variety)</p> <p>4.1.3 Discovery and development [ ]<br/>(please state where and when discovered<br/>and how developed)</p> <p>4.1.4 Other [ ]<br/>(please provide details)</p> <p>4.2 Method of propagating the variety</p> <p>4.2.1 Vegetative propagation</p> <p>(a) cuttings [ ]</p> <p>(b) <i>in vitro</i> propagation [ ]</p> <p>(c) other (state method) [ ]</p> <p>4.2.2 Seed [ ]</p> <p>4.2.3 Other [ ]</p> |                 |                   |

# Authorities may allow certain of this information to be provided in a confidential section of the Technical Questionnaire.

| TECHNICAL QUESTIONNAIRE   |   | Page {x} of {y} | Reference Number: |
|---|---|-----------------|-------------------|
| <p>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).</p> |   |                 |                   |
| Characteristics   | Example Varieties                           | Note            |                   |
| <b>5.2 Inflorescence: shape</b><br>(21)   |   |                 |                   |
| flattened   | Mousmée, Sea Foam                           | 1 [ ]           |                   |
| globular  | Merveille                                   | 2 [ ]           |                   |
| conical   | <i>H.paniculata</i> ,<br><i>quercifolia</i> | 3 [ ]           |                   |
| <b>5.1 Inflorescence: conspicuousness of fertile flowers</b><br>(24)  |   |                 |                   |
| inconspicuous   | Merveille                                   | 1 [ ]           |                   |
| conspicuous   | Mousmée, Sea Foam                           | 2 [ ]           |                   |
| <b>5.3 Sterile flower: intensity of coloration</b><br>(27)  |   |                 |                   |
| absent or very weak   | Soeur Thérèse                               | 1 [ ]           |                   |
| weak  | Marie Claire                                | 3 [ ]           |                   |
| medium  | Freudenstein                                | 5 [ ]           |                   |
| strong  | Doris                                       | 7 [ ]           |                   |
| very strong   | Leuchtfeuer                                 | 9 [ ]           |                   |
| <b>5.4i Sterile flower: main color</b><br>(28)  |   |                 |                   |
| RHS Colour Chart (indicate reference number)  |   |                 |                   |
| <b>5.4ii Sterile flower: main color</b><br>(28)   |   |                 |                   |
| white   |   | 1 [ ]           |                   |
| light pink  |   | 2 [ ]           |                   |
| dark pink   |   | 3 [ ]           |                   |
| purple pink   |   | 4 [ ]           |                   |
| red   |   | 5 [ ]           |                   |

|                         |                 |                   |
|-------------------------|-----------------|-------------------|
| TECHNICAL QUESTIONNAIRE | Page {x} of {y} | Reference Number: |
|-------------------------|-----------------|-------------------|

6. Similar varieties and differences from these varieties

*Please use the following table and box for comments to provide information on how your candidate variety differs from the variety (or varieties) which, to the best of your knowledge, is (or are) most similar. This information may help the examination authority to conduct its examination of distinctness in a more efficient way.*

| 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 <b>similar</b> variety(ies) | Describe the expression of the characteristic(s) for <b>your</b> candidate variety |
|---|---|--|--|
| <i>Example</i>  | <i>Flower color</i>   | <i>orange</i>  | <i>orange red</i>  |

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| Comments: |
|-----------|

| TECHNICAL QUESTIONNAIRE  | Page {x} of {y} | Reference Number: |
|--|-----------------|-------------------|
| <p>#7. Additional information which may help in the examination of the variety</p> <p>7.1 In addition to the information provided in sections 5 and 6, are there any additional characteristics which may help to distinguish the variety?</p> <p>Yes      <input type="checkbox"/>      No      <input type="checkbox"/></p> <p>(If yes, please provide details)</p> <p>7.2 Are there any special conditions for growing the variety or conducting the examination?</p> <p>Yes      <input type="checkbox"/>      No      <input type="checkbox"/></p> <p>(If yes, please provide details)</p> <p>7.3 Other information</p> |                 |                   |
| <p>8. Authorization for release</p> <p>(a) Does the variety require prior authorization for release under legislation concerning the protection of the environment, human and animal health?</p> <p>Yes      <input type="checkbox"/>      No      <input type="checkbox"/></p> <p>(b) Has such authorization been obtained?</p> <p>Yes      <input type="checkbox"/>      No      <input type="checkbox"/></p> <p>If the answer to (b) is yes, please attach a copy of the authorization.</p>   |                 |                   |

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# Authorities may allow certain of this information to be provided in a confidential section of the Technical Questionnaire.

|                         |                 |                   |
|-------------------------|-----------------|-------------------|
| TECHNICAL QUESTIONNAIRE | Page {x} of {y} | Reference Number: |
|-------------------------|-----------------|-------------------|

9. Information on plant material to be examined or submitted for examination.

9.1 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.

9.2 The plant material 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:

|   |         |        |
|---|---------|--------|
| (a) Microorganisms (e.g. virus, bacteria, phytoplasma)    | Yes [ ] | No [ ] |
| (b) Chemical treatment (e.g. growth retardant, pesticide) | Yes [ ] | No [ ] |
| (c) Tissue culture  | Yes [ ] | No [ ] |
| (d) Other factors   | Yes [ ] | No [ ] |

Please provide details for where you have indicated “yes”.

.....

10. I hereby declare that, to the best of my knowledge, the information provided in this form is correct:

|                  |  |  |  |
|------------------|--|--|--|
| Applicant's name |  |  |  |
| Signature        |  |  |  |

[End of document]