

***Lemna minor* L.**  
**Simplified standard protocol: NP/LMN/3**

Examination office	Naktuinbouw	
Reference of the protocol	NP/LMN/3	
Date of preparation of the protocol	01/12/2021	
Date of entry into force of the protocol	16/12/2009	
Botanical taxon:	<i>Lemna minor</i> L.	
Common Name (when known):	eendenkroos (NL); duckweed (EN)	
Way of propagation of the plants to be examined	Self or cross pollinated seed propagated <input type="checkbox"/> Vegetatively propagated <input checked="" type="checkbox"/>	
Number of growing cycles:	1 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> Other <input type="checkbox"/> specify <a href="#">Click or tap here to enter text.</a>	
List of grouping characteristics	Yes <input type="checkbox"/> if yes put as annex No <input checked="" type="checkbox"/>	
Minimum number of plants in trial	Vegetative:1000	Seed: <a href="#">Click or tap here to enter text.</a>
Minimum number of plants observed by measuring or counting:	Vegetative:10	Seed: <a href="#">Click or tap here to enter text.</a>
Give description of when observations should take place	Observations on the leaves should be made at fully developed, vital plants. Other observations should be made at fully developed, vital plants. Observation period: from July 1 to at least September 30.	

<p>Uniformity:</p> <ul style="list-style-type: none"> <li>- For the assessment of uniformity of vegetatively propagated varieties, a population standard of 1% with an acceptance probability of at least 95% should be applied.</li> </ul>	
Table of characteristics	Present <input checked="" type="checkbox"/> Not available <input type="checkbox"/>
Literature (when present, please annex to this document)	Present <input checked="" type="checkbox"/> Absent <input type="checkbox"/>

**Table of characteristics *Lemna minor* L. (NP/LMN/3)**

	Characteristic	Expression	Note
1	Roots: number	one two three four	1 2 3 4
2	Root: length	very short short medium long very long	1 3 5 7 9
3	Root: color (in full grown stage)	green reddish	1 2
4	Root: length of root tip	very short short medium long very long	1 3 5 7 9
5	Root: color of tip	green reddish	1 2
6	Leaf: length	very short short medium long very long	1 3 5 7 9
7	Leaf: width	very narrow narrow medium broad very broad	1 3 5 7 9
8	Leaf: shape	circular ovate	1 2
9	Leaf: shape of apex	acute acute to rounded rounded	1 2 3
10	Leaf: intensity of green color of upper side	very light light medium dark very dark	1 2 3 4 5
11	Leaf: color of lower side	green red	1 2
12	Leaf: intensity of color of lower side	very light light medium dark very dark	1 2 3 4 5
13	Leaf: color of margin	transparent green red	1 2 3

14	Leaf: intensity of anthocyanin coloration of upper side	absent or very weak weak medium strong very strong	1 2 3 4 5
15	Leaf: intensity of anthocyanin coloration of lower side	absent or very weak weak medium strong very strong	1 2 3 4 5
Literature:			
<p>Chittenden, F.J., 1951: Dictionary of Gardening. The Royal Horticultural Society. Oxford at the Clarendon Press, GB.</p> <p>Cross, J.W., 1994: Duckweed as a Primary Feedstock for Aquaculture. A Summary of its Potential Advantages. Missouri Botanical Garden.</p> <p>Graf, A.B., 1992: Hortica: A Color Cyclopedia of Garden Flora: In All Climates and Indoor Plants. Roehrs Co.</p> <p>Landolt, E., Kandeler, R., 1987: Biosystematic investigations in the family of duckweeds (Lemnaceae). Veröffentlichungen des Geobotanischen Institutes der Eidg. Tech. Hochschule Stiftung Rübel 95, CH, 638 pp.</p> <p>Meijden, R. van der, Weeda, E.J., Adema, F.A.C.B., Jonckheere, G.J. de, 1983: Heukels' Flora van Nederland. Wolters-Noordhoff, Groningen, NL.</p> <p>Vasseur, L., Aarssen, L.W. &amp; Lefebvre, D.D., 1991: Allozymic and morphometric variation in Lemna minor (Lemnaceae). Plant Systematics and Evolution 177, pp. 139 to 148.</p>			