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INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS

GENEVA

GARDEN SORREL

UPOV Code: RUMEX_ATS

Rumex acetosa L.

[*]

GUIDELINES

FOR THE CONDUCT OF TESTS

FOR DISTINCTNESS, UNIFORMITY AND STABILITY

Alternative Names:[*]

Botanical name	*English*	*French*	*German*	*Spanish*
Rumex acetosa L.	Dock, Garden Sorrel, Sorrel, Sour Dock	Grande oseille, Oseille commune	Wiesensauerampfer, Großer Sauerampfer	Acedera común

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), for the latest information.]

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1. Subject of these Test Guidelines

These Test Guidelines apply to all varieties of *Rumex acetosa* L..

2. Material Required

2.1 The competent authorities decide on the quantity and quality of the plant material required for testing the variety and when and where it is to be delivered. Applicants submitting material from a State other than that in which the testing takes place must ensure that all customs formalities and phytosanitary requirements are complied with.

2.2 The material is to be supplied in the form of seed.

2.3 The minimum quantity of plant material, to be supplied by the applicant, should be:

10 g of seed.

The seed should meet the minimum requirements for germination, species and analytical purity, health and moisture content, specified by the competent authority. In the cases where the seed is to be stored, the germination capacity should be as high as possible and should be stated by the applicant.

2.4 The plant material supplied should be visibly healthy, not lacking in vigor, nor affected by any important pest or disease.

2.5 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 it has been treated, full details of the treatment must be given.

3. Method of Examination

3.1 Number of Growing Cycles

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

3.2 Testing Place

Tests are normally conducted at one place. In the case of tests conducted at more than one place, guidance is provided in TGP/9 “Examining Distinctness”.

3.3 Conditions for Conducting the Examination

The tests should be carried out under conditions ensuring satisfactory growth for the expression of the relevant characteristics of the variety and for the conduct of the examination.

3.4 Test Design

3.4.1 Each test should be designed to result in a total of at least 60 plants, which should be divided between at least two replicates.

3.4.2 The design of the tests should be such that plants or parts of plants may be removed for measurement or counting without prejudice to the observations, which must be made up to the end of the growing cycle.

3.5 Additional Tests

Additional tests, for examining relevant characteristics, may be established.

4. Assessment of Distinctness, Uniformity and Stability

4.1 Distinctness

4.1.1 General Recommendations

It is of particular importance for users of these Test Guidelines to consult the General Introduction prior to making decisions regarding distinctness. However, the following points are provided for elaboration or emphasis in these Test Guidelines.

4.1.2 Consistent Differences

The differences observed between varieties may be so clear that more than one growing cycle is not necessary. In addition, in some circumstances, the influence of the environment is not such that more than a single growing cycle is required to provide assurance that the differences observed between varieties are sufficiently consistent. One means of ensuring that a difference in a characteristic, observed in a growing trial, is sufficiently consistent is to examine the characteristic in at least two independent growing cycles.

4.1.3 Clear Differences

Determining whether a difference between two varieties is clear depends on many factors, and should consider, in particular, the type of expression of the characteristic being examined, i.e. whether it is expressed in a qualitative, quantitative, or pseudo-qualitative manner. Therefore, it is important that users of these Test Guidelines are familiar with the recommendations contained in the General Introduction prior to making decisions regarding distinctness.

4.1.4 Number of Plants / Parts of Plants to be Examined

Unless otherwise indicated, for the purposes of distinctness, all observations on single plants should be made on 20 plants or parts taken from each of 20 plants and any other observations made on all plants in the test, disregarding any off-type plants.

4.1.5 Method of Observation

The recommended method of observing the characteristic for the purposes of distinctness is indicated by the following key in the second column of the Table of Characteristics (see document TGP/9 "Examining Distinctness", Section 4 "Observation of characteristics"):

MG: single measurement of a group of plants or parts of plants
MS: measurement of a number of individual plants or parts of plants
VG: visual assessment by a single observation of a group of plants or parts of plants
VS: visual assessment by observation of individual plants or parts of plants

Type of observation: visual (V) or measurement (M)

"Visual" observation (V) is an observation made on the basis of the expert's judgment. For the purposes of this document, "visual" observation refers to the sensory observations of the experts and, therefore, also includes smell, taste and touch. Visual observation includes observations where the expert uses reference points (e.g. diagrams, example varieties, side-by-side comparison) or non-linear charts (e.g. color charts). Measurement (M) is an objective observation against a calibrated, linear scale e.g. using a ruler, weighing scales, colorimeter, dates, counts, etc.

Type of record: for a group of plants (G) or for single, individual plants (S)

For the purposes of distinctness, observations may be recorded as a single record for a group of plants or parts of plants (G), or may be recorded as records for a number of single, individual plants or parts of plants (S). In most cases, "G" provides a single record per variety and it is not possible or necessary to apply statistical methods in a plant-by-plant analysis for the assessment of distinctness.

In cases where more than one method of observing the characteristic is indicated in the Table of Characteristics (e.g. VG/MG), guidance on selecting an appropriate method is provided in document TGP/9, Section 4.2.

4.2 Uniformity

4.2.1 It is of particular importance for users of these Test Guidelines to consult the General Introduction prior to making decisions regarding uniformity. However, the following points are provided for elaboration or emphasis in these Test Guidelines.

4.2.2 For the assessment of uniformity, a population standard of 2% and an acceptance probability of at least 95% should be applied. In the case of a sample size of 60 plants, 3 off-types are allowed.

4.3 Stability

4.3.1 In practice, it is not usual to perform tests of stability that produce results as certain as those of the testing of distinctness and uniformity. However, experience has demonstrated that, for many types of variety, when a variety has been shown to be uniform, it can also be considered to be stable.

4.3.2 Where appropriate, or in cases of doubt, stability may be further examined by testing a new seed stock to ensure that it exhibits the same characteristics as those shown by the initial material supplied.

5. Grouping of Varieties and Organization of the Growing Trial

5.1 The selection of varieties of common knowledge to be grown in the trial with the candidate varieties and the way in which these varieties are divided into groups to facilitate the assessment of distinctness are aided by the use of grouping characteristics.

5.2 Grouping characteristics are those in which the documented states of expression, even where produced at different locations, can be used, either individually or in combination with other such characteristics: (a) to select varieties of common knowledge that can be excluded from the growing trial used for examination of distinctness; and (b) to organize the growing trial so that similar varieties are grouped together.

5.3 The following have been agreed as useful grouping characteristics:

(a) Plant: attitude of rosette leaves (characteristic 1)
(b) Rosette leaf: length of blade (characteristic 3)
(c) Plant: height (characteristic 10)
(d) Time of full flowering (characteristic 19)
(e) Panicle: color (characteristic 21)

5.4 Guidance for the use of grouping characteristics, in the process of examining distinctness, is provided through the General Introduction and document TGP/9 “Examining Distinctness”.

6. Introduction to the Table of Characteristics

6.1 Categories of Characteristics

6.1.1 Standard Test Guidelines Characteristics

Standard Test Guidelines characteristics are those which are approved by UPOV for examination of DUS and from which members of the Union can select those suitable for their particular circumstances.

6.1.2 Asterisked Characteristics

Asterisked characteristics (denoted by *) are those included in the Test Guidelines which are important for the international harmonization of variety descriptions and should always be examined for DUS and included in the variety description by all members of the Union, except when the state of expression of a preceding characteristic or regional environmental conditions render this inappropriate.

6.2 States of Expression and Corresponding Notes

6.2.1 States of expression are given for each characteristic to define the characteristic and to harmonize descriptions. Each state of expression is allocated a corresponding numerical note for ease of recording of data and for the production and exchange of the description.

6.2.2 In the case of qualitative and pseudo-qualitative characteristics (see Chapter 6.3), all relevant states of expression are presented in the characteristic. However, in the case of quantitative characteristics with 5 or more states, an abbreviated scale may be used to minimize the size of the Table of Characteristics. For example, in the case of a quantitative characteristic with 9 states, the presentation of states of expression in the Test Guidelines may be abbreviated as follows:

State	Note
small	3
medium	5
large	7

However, it should be noted that all of the following 9 states of expression exist to describe varieties and should be used as appropriate:

State	Note
very small	1
very small to small	2
small	3
small to medium	4
medium	5
medium to large	6
large	7
large to very large	8
very large	9

6.2.3 Further explanation of the presentation of states of expression and notes is provided in document TGP/7 “Development of Test Guidelines”.

6.3 Types of Expression

An explanation of the types of expression of characteristics (qualitative, quantitative and pseudo-qualitative) is provided in the General Introduction.

6.4 Example Varieties

Where appropriate, example varieties are provided to clarify the states of expression of each characteristic.

6.5 Legend

(*) Asterisked characteristic – see Chapter 6.1.2

QL Qualitative characteristic – see Chapter 6.3
QN Quantitative characteristic – see Chapter 6.3
PQ Pseudo-qualitative characteristic – see Chapter 6.3

MG, MS, VG, VS: – See Chapter 4.1.5

(a) (b) See Explanations on the Table of Characteristics in Chapter 8.1
(+) See Explanations on the Table of Characteristics in Chapter 8.2

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

		English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
1. (*) (+)	**VG**	**Plant: attitude of rosette leaves**	**Plante : port des feuilles de la rosette**	**Pflanze: Haltung der Rosettenblätter**	**Planta: porte de hojas de roseta**		
QN	**(a)**	erect	dressé	aufrecht	erecto	Atstek	1
		semi erect	demi-dressé	halb aufrecht	semierecto	Shirokolistiy	3
		horizontal	horizontal	waagerecht	horizontal	Odesckiy 17	5
2.	**VG**	**Rosette leaf: intensity of green color**	**Feuille de la rosette : intensité de la couleur verte**	**Rosettenblatt: Intensität der Grünfärbung**	**Hoja de roseta: intensidad del color verde**		
QN	**(a)**	light	claire	hell	clara	Atstek	3
		medium	moyenne	mittel	media	Shirokolistiy	5
		dark	foncée	dunkel	oscura	Odesckiy 17	7
3. (*) (+)	**MS/ VG**	**Rosette leaf: length of blade**	**Feuille de la rosette : longueur du limbe**	**Rosettenblatt: Länge der Blattspreite**	**Hoja de roseta: longitud del limbo**		
QN	**(a)**	short	court	kurz	corta	Odesckiy 17	3
		medium	moyen	mittel	media	Shirokolistiy	5
		long	long	lang	larga	Atstek	7
4. (+)	**MS/ VG**	**Rosette leaf: width of blade**	**Feuille de la rosette : largeur du limbe**	**Rosettenblatt: Breite der Blattspreite**	**Hoja de roseta: anchura del limbo**		
QN	**(a)**	narrow	étroit	schmal	estrecha	Odesckiy 17	3
		medium	moyen	mittel	media	Atstek	5
		broad	large	breit	ancha	Shirokolistiy	7
5. (+)	**VG**	**Rosette leaf: shape of blade (excluding basal lobes)**	**Feuille de la rosette : forme du limbe (à l'exclusion des lobes basaux)**	**Rosettenblatt: Form der Blattspreite (ohne Basallappen)**	**Hoja de roseta: forma del limbo (lóbulos basales excluidos)**		
QN	**(a)**	narrow elliptic	elliptique étroit	schmal elliptisch	elíptico estrecho	Odesckiy 17	1
		medium elliptic	elliptique moyen	mittel elliptisch	elíptico medio	Atstek	2
		broad elliptic	elliptique large	breit elliptisch	elíptico ancho	Shirokolistiy	3

		English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
6. (*) (+)	**VG**	**Rosette leaf: shape of apex**	**Feuille de la rosette : forme du sommet**	**Rosettenblatt: Form der Spitze**	**Hoja de roseta: forma del ápice**		
PQ	**(a)**	acute	aigu	spitz	agudo	Odesckiy 17	1
		obtuse	obtus	stumpf	obtuso	Atstek	2
		rounded	arrondi	abgerundet	redondeado	Shirokolistiy	3
7. (*) (+)	**VG**	**Rosette leaf: shape of base**	**Feuille de la rosette : forme de la base**	**Rosettenblatt: Form der Basis**	**Hoja de roseta: forma de la base**		
PQ	**(a)**	truncate	tronquée	gerade	truncada		1
		cordate	cordiforme	herzförmig	cordiforme	Shirokolistiy	2
		sagittate	sagittée	pfeilspitzenförmig	sagitada		3
		hastate	hastée	spießförmig	hastada	Odesckiy 17	4
		auriculate	auriculée	geöhrt	auriculada	Atstek	5
8. (+)	**MS/ VG**	**Rosette leaf: length of petiole**	**Feuille de la rosette: longueur du pétiole**	**Rosettenblatt: Länge des Blattstiels**	**Hoja de roseta: longitud del pecíolo**		
QN	**(a)**	short	court	kurz	corto	Odesckiy 17	3
		medium	moyen	mittel	medio	Shirokolistiy	5
		long	long	lang	largo	Atstek	7
9.	**MS/ VG**	**Plant: number of flowering stems**	**Plante : nombre de tiges florales**	**Blütenstand: Anzahl Blütenstiele**	**Planta: número de tallos florales**		
QN	**(b)**	few	petit	gering	escaso	Odesckiy 17	3
		medium	moyen	mittel	medio	Atstek	5
		many	grand	groß	numeroso	Shirokolistiy	7
10. (*) (+)	**MS/ VG**	**Plant: height**	**Plante : hauteur**	**Pflanze: Höhe**	**Planta: altura**		
QN	**(b)**	short	basse	niedrig	corta	Odesckiy 17	3
		medium	moyenne	mittel	media	Shirokolistiy	5
		tall	haute	hoch	alta	Atstek	7

		English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
11. (+)	**VG**	**Stem: shape in cross-section**	**Tige : forme de la section transversale**	**Stengel: Form im Querschnitt**	**Tallo: forma en sección transversal**		
PQ	**(b)**	circular	ronde	kreisförmig	circular	Odesckiy 17	1
		elliptic	elliptique	elliptisch	elíptico	Atstek	2
		oblong	oblongue	rechteckig	oblongo	Shirokolistiy	3
12.	**VG**	**Stem: pubescence**	**Tige : pilosité**	**Stengel: Behaarung**	**Tallo: pubescencia**		
QL	**(b)**	absent	absente	fehlend	ausente	Atstek, Odesckiy 17	1
		present	présente	vorhanden	presente	Shirokolistiy	9
13. (+)	**MS/ VG**	**Stem: number of internodes**	**Tige : nombre d'entre-noeuds**	**Stengel: Anzahl Internodien**	**Tallo: número de intranudos**		
QN	**(b)**	few	petit	gering	escaso	Atstek	1
		medium	moyen	mittel	medio	Shirokolistiy	3
		many	grand	groß	numeroso	Odesckiy 17	5
14. (+)	**VG**	**Stem: anthocyanin coloration**	**Tige : pigmentation anthocyanique**	**Stengel: Anthocyanfärbung**	**Tallo: pigmentación antociánica**		
QN	**(b)**	absent or very weak	absente ou très faible	fehlend oder sehr gering	ausente o muy débil	Atstek	1
		weak	faible	gering	débil	Odesckiy 17	3
		medium	moyenne	mittel	media	Shirokolistiy	5
		strong	forte	stark	fuerte		7
15. (+)	**MS/ VG**	**Stem leaf: length of blade**	**Feuille sur la tige : longueur du limbe**	**Stengelblatt: Länge der Blattspreite**	**Hoja del tallo: longitud del limbo**		
QN	**(b)**	short	court	kurz	corta	Odesckiy 17	3
		medium	moyen	mittel	media	Shirokolistiy	5
		long	long	lang	larga	Atstek	7

		English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
16. (+)	**MS/ VG**	**Stem leaf: width of blade**	**Feuille sur la tige : largeur du limbe**	**Stengelblatt: Breite der Blattspreite**	**Hoja del tallo: anchura del limbo**		
QN	**(b)**	narrow	étroit	schmal	estrecha	Odesckiy 17	3
		medium	moyen	mittel	media	Atstek	5
		broad	large	breit	ancha	Shirokolistiy	7
17. (+)	**MS/ VG**	**Stem leaf: ratio length / width of blade**	**Feuille sur la tige : rapport longueur/largeur du limbe**	**Stengelblatt: Verhältnis Länge/Breite der Blattspreite**	**Hoja del tallo: relación longitud / anchura**		
QN	**(b)**	moderately compressed	modérément compressé	mäßig zusammengedrückt	moderadamente comprimida	Shirokolistiy	3
		medium	moyen	mittel	media	Atstek	5
		moderately elongated	modérément allongé	mäßig langgezogen	moderadamente alargada	Odesckiy 17	7
18. (+)	**MS/ VG**	**Stem leaf: length of petiole**	**Feuille sur la tige : longueur du pétiole**	**Stengelblatt: Länge des Blattstiels**	**Hoja del tallo: longitud del pecíolo**		
QN	**(b)**	short	court	kurz	corto	Odesckiy 17	3
		medium	moyen	mittel	medio	Shirokolistiy	5
		long	long	lang	largo	Atstek	7
19. (*) (+)	**MG**	**Time of full flowering**	**Époque de pleine floraison**	**Zeitpunkt der Vollblüte**	**Época de plena floración**		
QN	**(b)**	early	précoce	früh	precoz	Odesckiy 17	3
		medium	moyenne	mittel	media	Atstek	5
		late	tardive	spät	tardía	Shirokolistiy	7
20. (+)	**MS/ VG**	**Panicle: length**	**Panicule : longueur**	**Rispe: Länge**	**Panícula: longitud**		
QN	**(b)**	short	courte	kurz	corta	Odesckiy 17	3
		medium	moyenne	mittel	media	Shirokolistiy	5
		long	longue	lang	larga	Atstek	7

		English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
21. (*)	**VG**	**Panicle: color**	**Panicule : couleur**	**Rispe: Farbe**	**Panícula: color**		
PQ	**(b)**	greenish pink	rose verdâtre	grünlichrosa	rosa verdoso	Atstek	1
		brown pink	rose brun	braunrosa	rosa amarronado	Odesckiy 17	2
		brown	brune	braun	marrón	Shirokolistiy	3
22. (+)	**MS**	**Time of seed maturity**	**Époque de maturité du grain**	**Zeitpunkt der Samenreife**	**Época de madurez del grano**		
QN	**(b)**	early	précoce	früh	precoz	Odesckiy 17	3
		medium	moyenne	mittel	intermedia	Atstek	5
		late	tardive	spät	tardía	Shirokolistiy	7

8. Explanations on the Table of Characteristics

8.1 Explanation covering several characteristics

(a) Characteristic to be observed in the first year of growing

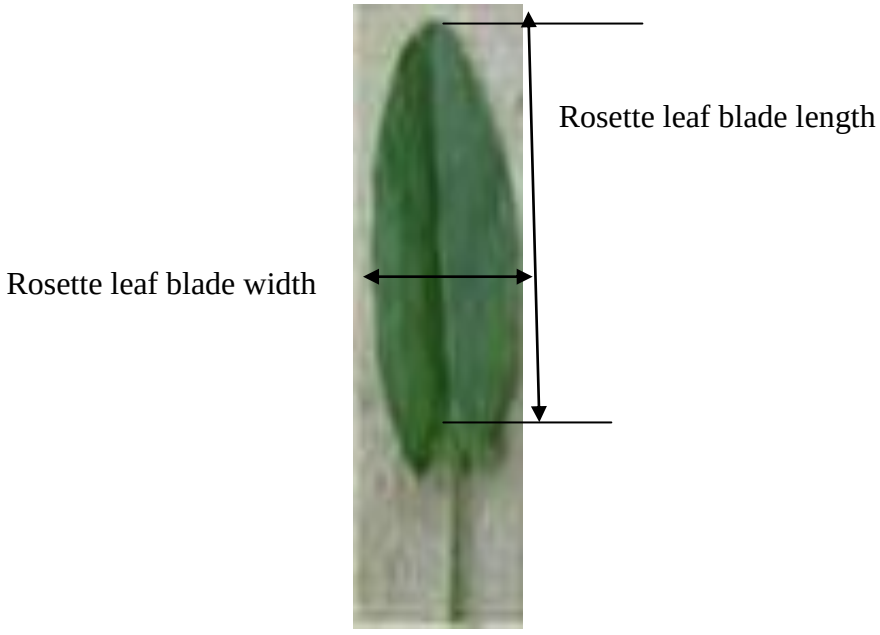
(b) Characteristic to be observed in the second year of growing

8.2 Explanations for individual characteristics

Ad. 1: Plant: attitude of rosette leaves

1	3	5
erect	semi erect	horizontal

Ad. 3: Rosette leaf: length of blade
Ad. 4: Rosette leaf: width of blade



Ad. 5: Rosette leaf: shape of blade (excluding basal lobes)

1 narrow elliptic | 2 medium elliptic | 3 broad elliptic

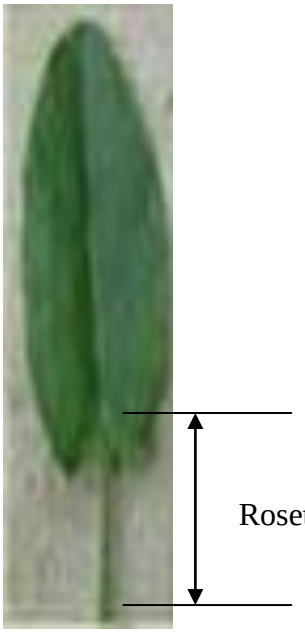
Ad. 6: Rosette leaf: shape of apex

1 acute | 2 obtuse | 3 rounded

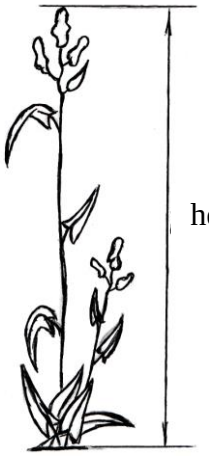
Ad. 7: Rosette leaf: shape of base

1 truncate | 2 cordate | 3 sagittate | 4 hastate | 5 auriculate

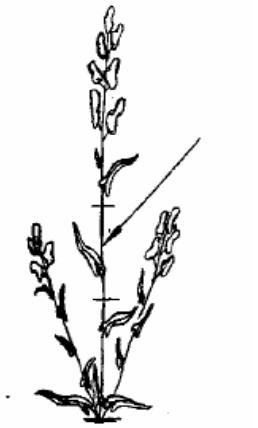
Ad. 8: Rosette leaf: length of petiole

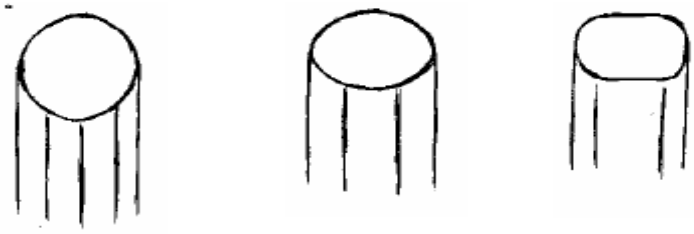


Ad. 10: Plant: height



Ad. 11: Stem: shape in cross-section





1 circular | 2 elliptic | 3 oblong

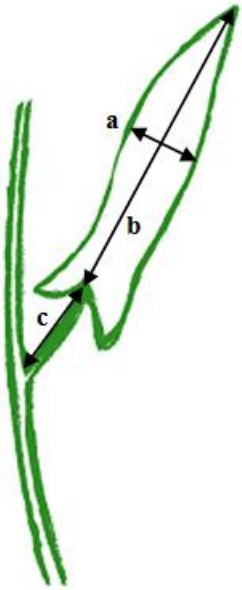
Ad. 13: Stem: number of internodes

This characteristic should be observed on the stem at time of full bloom of panicle. The minimum number of internodes is 2 (note 1).

Ad. 14: Stem: anthocyanin coloration

The anthocyanin coloration should be observed on the middle third of the stem.

Ad. 15: Stem leaf: length of blade (b)
Ad. 16: Stem leaf: width of blade (a)
Ad. 17: Stem leaf: ratio length/ width of blade
Ad. 18: Stem leaf: length of petiole (c)

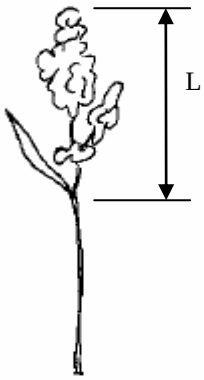


The characteristics should be observed on a fully developed leaf on the middle part of the main stem.

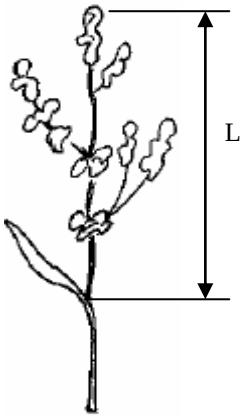
Ad. 19: Time of full flowering

Full flowering is when 75% of flowers are open.

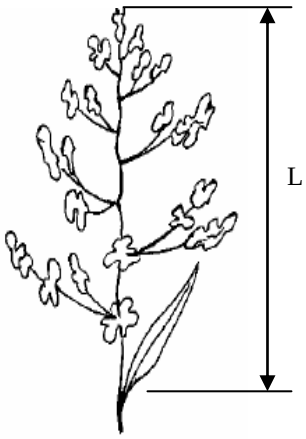
Ad. 20: Panicle: length



3
short



5
medium



7
long

Ad. 22: Time of seed maturity

Seed maturity is when 75% of panicles have their final color.

9. Literature

Dong Baodi, Liu Satoshi Yamada, Hideyasu Fujiama, SunaoYamazaki, Toshiaki Tanado, Li Dengshum, 1999: Study of the introduction of Rumex K-1 hybrid of sorrel in saline soil

Goodwin, B.C., 1970: Biological stability, in Towards a Theoretical Biology. C.H. Waddington (ed.), Aldine. Chicago, US

10. Technical Questionnaire

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

	Application date: (not to be filled in by the applicant)

TECHNICAL QUESTIONNAIRE
to be completed in connection with an application for plant breeders' rights

1. Subject of the Technical Questionnaire

1.1 Botanical Name	*Rumex acetosa* L.
1.2 Common Name	Garden Sorrel

2. Applicant

Name	
Address	
Telephone No.	
Fax No.	
E-mail address	

Breeder (if different from applicant)

3. Proposed denomination and breeder's reference

Proposed denomination (if available)	
Breeder's reference	

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

[#]4. Information on the breeding scheme and propagation of the variety

4.1 Breeding scheme

Variety resulting from:

4.1.1 Crossing

(a) controlled cross [ ]
(please state parent varieties)

(……..……..…) x (……..……..…)
female parent male parent

(b) partially known cross [ ]
(please state known parent variety(ies))

(……..……..…) x (……..……..…)
female parent male parent

(c) unknown cross [ ]

4.1.2 Mutation [ ]
(please state parent variety)

4.1.3 Discovery and development [ ]
(please state where and when discovered and how developed)

4.1.4 Other [ ]
(please provide details)

[#] 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:

4.2 Method of propagating the variety

4.2.1 Seed-propagated varieties

(a) Self-pollination [ ]
(b) Cross-pollination
(i) population [ ]
(ii) synthetic variety [ ]
(c) Hybrid [ ]
(d) Other [ ]
(please provide details)

4.2.2 Vegetative propagation [ ]

4.2.3 Other [ ]
(please provide details)

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 Variety	Note
5.1 (1)	**Plant: attitude of rosette leaves**		
	erect	Atstek	1[ ]
	erect to semi erect		2[ ]
	semi erect	Shirokolistiy	3[ ]
	semi erect to horizontal		4[ ]
	horizontal	Odesckiy 17	5[ ]
5.2 (3)	**Rosette leaf: length of blade**		
	very short		1[ ]
	very short to short		2[ ]
	short	Odesckiy 17	3[ ]
	short to medium		4[ ]
	medium	Shirokolistiy	5[ ]
	medium to long		6[ ]
	long	Atstek	7[ ]
	long to very long		8[ ]
	very long		9[ ]

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

	Characteristics	Example Variety	Note
5.3 (10)	**Plant: height**		
	very short		1[ ]
	very short to short		2[ ]
	short	Odesckiy 17	3[ ]
	short to medium		4[ ]
	medium	Shirokolistiy	5[ ]
	medium to tall		6[ ]
	tall	Atstek	7[ ]
	tall to very tall		8[ ]
	very tall		9[ ]
5.4 (19)	**Time of full flowering**		
	very early		1[ ]
	very early to early		2[ ]
	early	Odesckiy 17	3[ ]
	early to medium		4[ ]
	medium	Atstek	5[ ]
	medium to late		6[ ]
	late	Shirokolistiy	7[ ]
	late to very late		8[ ]
	very late		9[ ]
55 (21)	**Panicle: color**		
	greenish pink	Atstek	1[ ]
	brown pink	Odesckiy 17	2[ ]
	brown	Shirokolistiy	3[ ]

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

6. Similar varieties and differences from these varieties

Please, use the table and space provided for comments below 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 **similar** variety(ies)	Describe the expression of the characteristic(s) for **your** candidate variety
Example	*Plant: height*	*medium*	*tall*

Comments:

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

[#]7. Additional information which may help in the examination of the variety

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?

Yes [ ] No [ ]

(If yes, please provide details)

7.2 Are there any special conditions for growing the variety or conducting the examination?

Yes [ ] No [ ]

(If yes, please provide details)

7.3 Other information

8. Authorization for release

(a) Does the variety require prior authorization for release under legislation concerning the protection of the environment, human and animal health?

Yes [ ] No [ ]

(b) Has such authorization been obtained?

Yes [ ] No [ ]

If the answer to (b) is yes, please attach a copy of the authorization.

[#] 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 of 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 Date

[End of document]