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PLANTS

UNION INTERNATIONALE
POUR LA PROTECTION
DES OBTENTIONS
VÉGÉTALES

INTERNATIONALER
VERBAND ZUM SCHUTZ
VON PFLANZEN-
ZÜCHTUNGEN

UNIÓN INTERNACIONAL
PARA LA PROTECCIÓN
DE LAS OBTENCIONES
VEGETALES

DRAFT

**GUIDELINES
FOR THE CONDUCT OF TESTS
FOR DISTINCTNESS, UNIFORMITY AND STABILITY**

GLOBE ARTICHOKE
(Cynara scolymus L.)
(Cynara cardunculus var scolymus L.)

These Guidelines should be read in conjunction with document TG/1/2, which contains explanatory notes on the general principles on which the Guidelines have been established.

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I. Subject of these Guidelines

These Test Guidelines apply to all varieties of *Cynara scolymus* L. (*Cynara cardunculus* var. *scolymus* L.), of the family of the *Compositae*.

II. Material Required

1. The competent authorities decide when, where and in what quantity and quality the seed or the young 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. The minimum quantity of seed or plant material to be supplied by the applicant in one or several samples should be:

- (b) vegetatively propagated varieties: 60 plants
- (a) seed propagated varieties: 50 g of seed

The plant material supplied should be visibly healthy, not lacking in vigour or affected by any important pest or disease and virus free. The seed should at least meet the minimum requirements for germination capacity, moisture content and purity for marketing seed in the country in which the application is made. The germination capacity should be as high as possible.

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 normally be 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 measurement and counting without prejudice to the observations which must be made up to the end of the growing period. Each test should include a total of 40 plants which should be divided between two or more replicates. 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. Unless otherwise indicated, all observations determined by measurement, weighting or counting should be made on 10 plants or parts taken from each of 10 plants.
2. For the assessment of uniformity, a population standard of 5% with an acceptance probability of at least 95% should be applied. In case of a sample size off 40 plants the maximum number of off-types allowed would be 4 (the number includes plants resulting from the selfing of a parent line)
3. Unless otherwise indicated, all observations on the leaves should be made on fully developed leaves, on the 3rd or 4th leaves from base (i.e. when flower head is about 3 cm in diameter).
4. Unless otherwise indicated all observations on outer bracts of flower head should be made on the 5th whorl of bracts from the base of the central flower head.
5. Unless otherwise indicated, all observations on inner bracts of flower head must be made on the central flower head.

V. Grouping of Varieties

1. The collection of varieties 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. Their various states of expression should be fairly evenly distributed throughout the collection.
2. It is recommended that the competent authorities use the following characteristics for grouping varieties:
 - (a) Leaf: lobbing (10 to 12 leaves stage) (characteristic 7)
 - (b) Central flower head: shape in longitudinal section (characteristic 26)
 - (c) Central flower head: time of appearance (characteristic 28)
 - (d) Outer bract: color (outer side) (characteristic 43)

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 (numbers), for the purposes of electronic data processing, are given opposite the states of the different characteristics.
3. Legend:
 - (*) Characteristics that should be used on all varieties in every growing period over which the examinations are made and always be included in the variety descriptions, 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.

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

English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
1. Plant: height (* (+) (including central flower head)	Plante: hauteur (capitule central inclus)	Pflanze: Höhe (ein- schließlich mittlere Blütenkopf)	Planta: altura (incluyendo el capitulo central)		
short	courte	klein	pequeña	Violet de Provence, Tudela	3
medium	moyenne	mittel	media	Blanc Hyérois, Camus de Bretagne, Vertu	5
tall	haute	hoch	alta	Caribou, Popvert, Salambo	7
2. Plant: number of laterals on main stem	Plante: nombre de ramifications sur la tige principale	Pflanze: Anzahl Verzweigungen am Haupttrieb	Planta: número des ramificaciones en el tallo principal		
few	peu	gering	escasas	Blanc Hyérois, Calico, Popvert	3
medium	moyen	mittel	media	Salambo	5
many	beaucoup	groß	alto	Chrysanthème, Vertu	7
3. Main stem: height (* (+) (excluding central flower head)	Tige principale: hauteur (à l'ex- clusion du capitule central)	Haupttrieb: Höhe (mittlere Blütenkopf ausgenommen)	Planta: altura (excluyendo el capítulo central)		
short	basse	niedrig	corta	Capitan	3
medium	moyenne	mittel	media	Castel, Salambo	5
tall	haute	hoch	alta	Caribou	7
4. Main stem: distance between central flower head and lowest well developed leaf	Tige principale: distance entre le capitule central et la feuille bien développée la plus basse	Haupttrieb: Abstand zwischen mittleren Blütenkopf und unterstem voll entwickelten Blatt	Tallo principal: distancia entre el capitulo central y la hoja bien desarrollada más bajo		
short	courte	kurz	corta	Caribou, Violet de Provence	3
medium	moyenne	mittel	media	Blanc Hérois, Tudela	5
long	longue	lang	larga	Castel	7

English	français	deutsch	español	Example Varieties Exemples Beispielsorten Variedades ejemplo	Note/ Nota
5. Main stem: diameter (at about 10 cm below central flower head)	Tige principale: diamètre (à 10 cm environ sous la base du capitule central)	Haupttrieb: Durchmesser (bei ungefähr 10 cm unter dem mittleren Blütenkopf)	Tallo principal: diámetro (aproximadamente a 10 cm por debajo del capitulo central)		
small	petit	klein	pequeño	Violet de Provence	3
medium	moyen	mittel	media	Castel, Vertu	5
large	grand	groß	grande	Carène	7
6. Leaf: attitude (10 to 12 leaves stage)	Feuilles: port (stade 10 à 12 feuilles)	Blatt: Stellung (10 bis 12 Blattstadium)	Hoja: porte (estado de 10 a 12 hojas)		
erect	dressé	aufrecht	erecto	Capitan, Pètre, Vert de Provence	1
semi-erect	demi-dressé	halbaufrecht	semierecto	Calico, Camus de Bretagne	3
horizontal	horizontal	waagrecht	horizontal	Blanc Hyèrois, Popvert	5
7. Leaf: lobbing (10 to 12 leaves stage)	Feuilles: découpe (stade 10 à 12 feuilles)	Blatt: Lappung (10 bis 12 Blattstadium)	Hoja: lobulado (estado de 10 a 12 hojas)		
absent	absente	fehlend	ausente	Tudela, Violet de Provence	1
present	présente	vorhanden	presente	Camus de Bretagne, Vertu	2
8. Leaf: long spines	Feuilles: épines longues	Blatt: lange Stacheln	Hoja: espinas largas		
absent	absente	fehlend	ausente	Camus de Bretagne, Tudela	1
present	présente	vorhanden	presente	Spinoso sardo	2
9. Leaf: length	Feuilles: longueur	Blatt: Länge	Hoja: longitud		
short	courte	kurz	corta	Tudela, Violet de provence	3
medium	moyenne	mittel	media	Blanc Hyérois, Chrysanthème, Popvert	5
long	longue	lang	larga	Camus de Bretagne, Caribou	7

English	français	deutsch	español	Example Varieties Exemples Beispielsorten Variedades ejemplo	Note/ Nota
10. Leaf: number of lobes (including terminal lobe)	Feuilles: nombre de pennes (y compris le lobe terminal)	Blatt: Anzahl Lappen (einschließlich Endlappen)	Hoja: número de lóbulos (incluyendo lóbulo terminal)		
few	faible	gering	bajo	Violet de Provence, Tudela	3
medium	moyen	mittel	medio	Blanc Hyérois, Chrysanthème	5
many	élevé	groß	alto	Salanquet	7
11. Leaf: length of longest lobe	Feuilles: longueur du penne le plus long	Blatt: Länge der längsten Lappe	Hoja: longitud del lóbulo más largo		
short	court	kurz	corta	Vertu	3
medium	moyen	mittel	media	Orlando, Popvert, Sybaris	5
long	long	lang	larga		7
12. Leaf: width of largest lobe	Feuilles: largeur du penne le plus large	Blatt: Breite der breitesten Lappe	Hoja: anchura del lóbulo más largo		
narrow	étroit	schmal	estrecho	Vertu	3
medium	moyen	mittel	media	Orlando, Popvert, Sybaris	5
broad	large	breit	ancha		7
13. Lobe: shape of tip (excluding terminal lobe)	Penne: forme de l'extrémité (à l'exclusion du lobe terminal)	Lappe: Form des Endes (Endlappen ausgenommen)	Lóbulo: forma de la punta (excluyendo el lóbulo terminal)		
acute	aiguë	spitz	aguda	Camus de Bretagne, Vertu	1
nearly right angle	approximativement à angle droit	fast rechtwinklig	casi en ángulo recto	Calico, Caribou, Salambo	2
obtuse	obtus	stumpf	obtuso	types Romanesco	3

English	français	deutsch	español	Example Varieties Exemples Beispielsorten Variedades ejemplo	Note/ Nota
14. Lobe: number of secondary lobes	Penne: nombre de divisions	Lappe: Anzahl der Sekundärlappen	Lóbulo: número de lóbulos secundarios		
none or very few	aucune ou très peu	fehlend oder sehr gering	ninguna o muy bajo	Violet de Provence	1
few	peu	gering	bajo	Camus de Bretagne	3
medium	moyen	mittel	medio	Blanc Hyérois, Popvert	5
many	nombreuses	groß	alto	Orlando, Sybaris	7
very many	très nombreuses	sehr groß	muy alto		9
15. Lobe: shape of tip of (+) secondary lobes	Penne: forme de l'extrémité des divisions	Lappe: Form der Spitze des Sekundärlappens	Lóbulo: forma de la punta de los lóbulos secundarios		
acuminate	très pointue	mit aufgesetzter Spitze	acuminada	Vert de Provence	1
acute	pointue	spitz	aguda	Blanc Hyérois, Tudela	2
rounded	arrondie	abgerundet	redondeada	Cric, Popvert	3
16. Leaf blade: shape in cross section	Limbe: forme en section transversale	Blattspreite: Form im Querschnitt	Limbo: forma de la sección transversal		
flat	plane	flach	plana	Salambo, Vertu	1
V shaped	en V	V-förmig	en forma de V	Capitan, Castel	2
17. Leaf blade: intensity of green color (upper side)	Limbe: intensité de la couleur verte (face supérieure)	Blattspreite: Intensität der Grünfärbung (der Oberseite)	Limbo: intensidad del color verde (del haz)		
light	claire	hell	clara	Blanc Hyérois, Pètre	3
medium	moyenne	mittel	media	Violet de Provence, Tudela, Vertu	5
dark	foncée	dunkel	oscura	Camus de Bretagne, Cric	7

English	français	deutsch	español	Example Varieties Exemples Beispielsorten Variedades ejemplo	Note/ Nota	
18. (*)	Leaf blade: hue of green color	Limbe: teinte de la couleur verte	Blattspreite: Ton der Grünfärbung	Limbo: tonalidad del color verde		
	absent	absente	fehlend	ausente	Salambo	1
	yellowish	jaunâtre	gelblich	amarillento	Blanc Hyérois,	2
	greyish	grisâtre	gräulich	grisáceo	Camus de Bretagne	3
19. (*)	Leaf blade: intensity of grey hue	Limbe: intensité de la teinte grise	Blattspreite: Intensität des Grautons	Limbo: intensidad del tonalidad gris		
	light	claire	hell	clara		3
	medium	moyenne	mittel	media		5
	dark	foncée	dunkel	oscura		7
20. (*)	Leaf blade: intensity of tomentose (upper-side)	Limbe: intensité du tomentum (face supérieure)	Blattspreite: Intensität des Filzes (der Oberseite)	Limbo: intensidad del tomento (del haz)		
	absent or very weak	absente ou faible	fehlend oder sehr gering	ausente o muy débil	Camus de Bretagne, Castel, Very Globe	1
	weak	faible	gering	débil	Vertu	3
	medium	moyenne	mittel	medio	Carène, Popvert	5
	strong	forte	stark	fuerte	Violet de Provence	7
	very strong	très forte	sehr stark	muy fuerte		9
21. (*)	Leaf blade: blistering	Limbe: cloqure	Blattspreite: Blasigkeit	Limbo: abullonado		
	absent or very weak	absente ou très faible	fehlend oder sehr gering	ausente o muy débil		1
	weak	faible	gering	débil	Blanc Hyérois, Popvert	3
	medium	moyenne	mittel	medio	Calico, Caribou	5
	strong	forte	stark	fuerte	Chrysanthème	7
	very strong	très forte	sehr stark	muy fuerte	Cric	9

English	français	deutsch	español	Example Varieties Exemples Beispielsorten Variedades ejemplo	Note/ Nota
22. Petiole: intensity of anthocyanin coloration at base	Pétiolle: intensité de la pigmentation anthocyanique de la base	Blattstiel: Intensität der Anthocyanfärbung an der Basis	Pecíolo: intensidad de la pigmentación antocianica de la base		
absent or very weak	absente ou très faible	fehlend oder sehr gering	ausente o muy débil	Capitan, Carène	1
weak	faible	gering	débil	Castel	3
medium	moyenne	mittel	medio	Pètre	5
strong	forte	stark	fuerte	Violet de Provence	7
very strong	très forte	sehr stark	muy fuerte		9
23. Central flower head: length	Capitule central: longueur	Mittlerer Blütenkopf: Länge	Capitulo central: longitud		
short	courte	kurz	corta	Pètre	3
medium	moyenne	mittel	media		5
long	longue	lang	larga	Vert de Provence	7
24. Central flower head: diameter	Capitule central: diamètre	Mittlerer Blütenkopf: Durchmesser	Capitulo central: diámetro		
small	petit	klein	pequeño	Vert de Provence	3
medium	moyen	mittel	medio		5
large	grand	groß	grande	Camus de Bretagne, Salambo	7
25. (*) Central flower head: size	Capitule central: taille	Mittlerer Blütenkopf: Größe	Capitulo central: tamaño		
small	petit	klein	pequeño	Vert de Provence, Violet de Provence	3
medium	moyen	mittel	mediano	Blanc Hyérois, Chrysanthème	5
large	gros	groß	grande	Castel, Salambo	7

English	français	deutsch	español	Example Varieties Exemples Beispielsorten Variedades ejemplo	Note/ Nota
26. (* (+)	Central flower head: shape in longitudinal section	Capitule central: forme en section longitudinale	Mittlerer Blütenkopf: Form im Längsabschnitt	Capítulo central: forma de la sección longitudinal	
	circular	circulaire	rund	redonda	Castel, Green Globe 1
	elliptic	elliptique	elliptisch	elíptica	Chrysanthème, Vert de Provence 2
	ovate	ovale	eiförmig	oval	Cric, Salambo 3
	triangular	triangulaire	dreieckig	triangular	Tudela, Violet de Provence 4
	transverse elliptic	elliptique transverse	quer elliptisch	elíptica transversal	Pètre, Carène 5
27. (*	Central flower head: shape of tip	Capitule central: forme au sommet	Mittlerer Blütenkopf: Form der Spitze	Capítulo central: forma de la punta	
	acute	pointue	spitz	aguda	Violet de Provence 1
	rounded	arrondie	abgerundet	redondeada	Camus de Bretagne 2
	flat	aplatie	flach	llano	Chrysanthème 3
	depressed	creuse	eingesunken	hundida	Carène, Pètre 4
28. (*	Central flower head: time of appearance	Capitule central: époque d'apparition	Mittlerer Blütenkopf: Zeitpunkt des Erscheinens	Capítulo central: Época de aparición del	
	early	précoce	früh	precoz	Chrysanthème, Tudela 3
	medium	moyenne	mittel	media	Blanc Hyérois 5
	late	tardive	spät	tardía	Camus de Bretagne 7
29.	Central flower head: time of beginning of opening	Capitule central: période du début de l'ouverture	Mittlerer Blütenkopf: Zeitpunkt des Beginns der Öffnung	Capítulo central: Época de la apertura	
	early	précoce	früh	precoz	Chrysanthème, Vert de Provence 3
	medium	moyenne	mittel	media	Camus de Bretagne 5
	late	tardive	spät	tardía	Popvert, Tudela 7

English	français	deutsch	español	Example Varieties Exemples Beispielsorten Variedades ejemplo	Note/ Nota	
30. (+)	Central flower head: density of inner bracts	Capitule central: densité des bractées internes	Mittlerer Blütenkopf: Dichte der inneren Deckblätter	Capitulo central: densidad de las bractéas internas	<u>à mettre après 45</u>	
	sparse	lâche	locker	escasa	Camard, Calice	3
	medium	moyenne	mittel	media	Camus de Bretagne	5
	dense	dense	dicht	densa	Cacique, Compact	7
31.	Central flower head: intensity of anthocyanin coloration of inner bracts	Capitule central: intensité de la coloration anthocyanique des bractées internes	Mittlerer Blütenkopf: Anthocyanfärbung der inneren Deckblätter	Capitulo central: intensidad de la pigmentación antocianica	<u>à mettre après 45</u>	
	absent or very weak	absente ou très faible	fehlend oder sehr gering	ausente o muy débil	Popvert	1
	weak	faible	gering	débil	Catsel	3
	medium	moyenne	mittel	media	Blanc Hyérois	5
	strong	forte	stark	fuerte	Chrysanthème	7
	very strong	très forte	sehr stark	muy fuerte	Salambo	9
32.	First flower head on lateral: length	Premier capitule latéral: longueur	Erster seitlicher Blütenkopf: Länge	Primer capitulo lateral: longitud		
	short	courte	klein	pequeña	Pètre, Popvert	3
	medium	moyenne	mittel	media		5
	long	longue	hoch	alta	Vert de Provence	7
33.	First flower head on lateral: diameter	Premier capitule latéral: diamètre	Erster seitlicher Blütenkopf: Durchmesser	Primer capitulo lateral: diámetro		
	narrow	étroit	schmal	estrecho	Vert de Provence	3
	medium	moyen	mittel	medio	Blanc Hyérois	5
	large	grand	groß	grande	Salambo	7
34.	First head on lateral: size	Premier capitule latéral: taille	Erster seitlicher Blütenkopf: Größe	Primer capitulo lateral: tamaño		
	small	petite	klein	pequeño	Violet de Provence	3
	medium	moyenne	mittel	medio	Chrysanthème	5
	large	grosse	groß	grande	Blanc Hyérois, Castel	7

English	français	deutsch	español	Example Varieties Exemples Beispielsorten Variedades ejemplo	Note/ Nota
35. First flower head on lateral: shape in longitudinal section	Premier capitule latéral: forme en section longitudinale	Erster seitlicher Blütenkopf: Form im Längsabschnitt	Primer capitulo lateral: forma de la sección longitudinal		
circular	circulaire	rund	circular	Castel, Salambo	1
elliptic	elliptique	elliptisch	elíptica	Cric, Blanc Hyérois	2
ovate	ovale	eiförmig	oval	Velours	3
triangular	triangulaire	dreieckig	triangular	Violet de Provence	4
transverse elliptic	elliptique transverse	quer elliptisch	elíptica transversal	Pètre, Popvert	5
36. First flower head on lateral: degree of opening	Premier capitule latéral: degré de l'ouverture	Erster seitlicher Blütenkopf: Stärke der Öffnung	Primer capitulo lateral: longitud en la base		
weak	faible	gering	débil	Salambo	3
medium	moyen	mittel	media	Blanc Hyérois	5
strong	fort	stark	fuerte	Chrysanthème	7
37. (+) Outer bract: length at base	Bractée externe: longueur de la base	Äußeres Deckblatt: Länge an der Basis	Bráctea exterior: longitud en la base		
short	courte	klein	pequeña		3
medium	moyenne	mittel	media		5
long	longue	hoch	alta		7
38. (+) Outer bract: width at base	Bractée externe: largeur de la base	Äußeres Deckblatt: Breite an der Basis	Bráctea exterior: anchura en la base		
narrow	étroite	schmal	estrecha	Orlando	3
medium	moyenne	mittel	media	Blanc Hyérois, Popvert, Vertu	5
broad	large	breit	ancha	Pètre	7

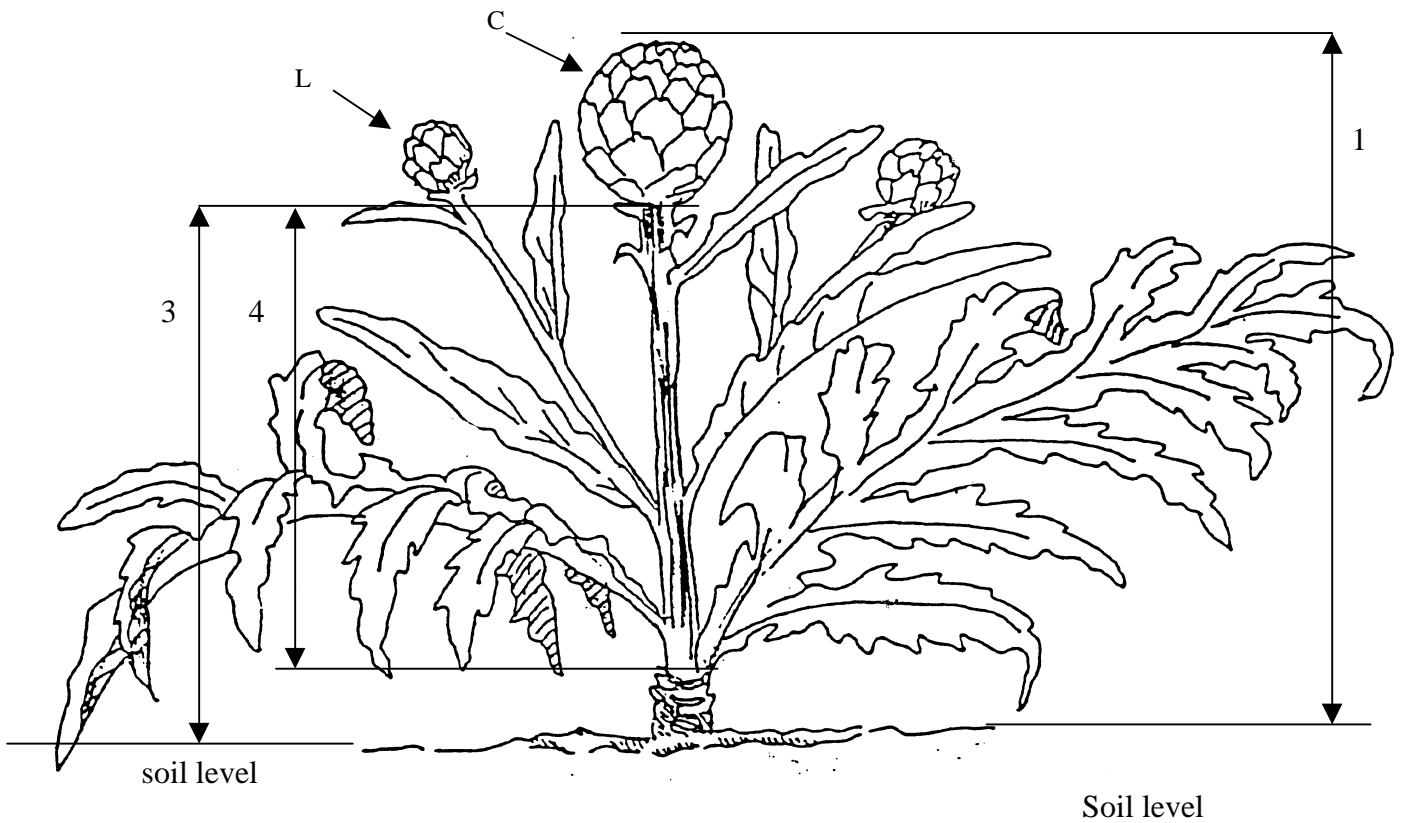
English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
39. (+)	Outer bract: thickness at base	Bractée externe: épaisseur de la base	Äußeres Deckblatt: Dicke an der Basis	Bráctea exterior: espesor en la base	
thin	fine	dünn	delgado		3
medium	moyenne	mittel	media	Blanc Hyérois, Popvert, Vertu	5
thick	épaisse	dick	grueso	Pètre	7
40. (*)	Outer bract: main shape	Bractée externe: forme principale	Äußeres Deckblatt: Hauptform	Bráctea exterior: forma principal	
broader than high	plus large que haute	breiter als hoch	más ancha que elevada	Calico, Cric Pètre, ,	1
as broad as high	aussi large que haute	ebenso breit wie hoch	tan elevada tan larga	Camus de Bretagne, Pètre	2
higher than broader	plus haute que large	höher als breit		Vert de Provence, Vertu	3
41. (*)	Outer bract: shape of apex	Bractée externe: forme de l'apex	Äußeres Deckblatt: Form der Spitze	Bráctea exterior: forma del ápice	
acute	pointue	spitz	aguda	Spinoso sardo	1
flat	plate	flach	plana	Talpiot	2
emarginate	échancrée	eingekerbt	emarginada	Chrysanthème	3
42. (*)	Outer bract: depth of emargination	Bractée externe: profondeur de l'échancrure	Äußeres Deckblatt: Tiefe des Randeinschnittes	Bráctea exterior: profundidad del emarginado	
shallow	faible	flach	poco profunda	Castel, Violet de provence	3
medium	moyenne	mittel	media	Blanc Hyérois	5
deep	profonde	tief	profunda	Chrysanthème	7

English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
43. Outer bract: color (outer side) (*)	Bractée externe: couleur (face externe)	Äußeres Deckblatt: Farbe (Außenseite)	Bráctea exterior: color (cara externa)		
green	verte	grün	verde	Vert de provence, Tudela, Blanc hyérois	1
green striped with violet	verte striée de violet	grün gestreift bis violett	verde rayado con violeta	Violet de provence	2
violet striped with green	violet striée de vert	violett gestreift bis grün	violeta rayado con verde	Chrysanthème	3
mainly violet	principalement violette	überwiegend violett	principalmente violeta	Salambo, Cric	4
entirely violet	entièrement violette	vollständig violett	completamente violeta	Velours	5
44. Outer bract: hue of secondary color (as 43) (*)	Bractée externe: teinte secondaire (comme 43)	Äußeres Deckblatt: Farbton der Sekundärfarbe (wie unter 43)	Bráctea exterior: tonalidad del color secundario (como para 43)		
absent	absente	fehlend	ausente	Calico	1
bronze	bronze	bronzefarben	bronce	Blanc Hyérois, Sakiz	2
grey	grise	grau	gris	Camus de Bretagne, Popvert	3
45. Outer bract: reflexing of tip (+)	Bractée externe: courbure au sommet	Äußeres Deckblatt: Krümmung an der Spitze	Bráctea exterior: curvatura de la punta		
absent	absente	fehlend	ausente	Castel, Salambo	1
present	présente	vorhanden	presente	Calice, Chrysanthème	9
46. Outer bract: size of spines (*)	Bractée externe: taille de l'épine	Äußeres Deckblatt: Größe der Stacheln	Bráctea exterior: tamaño de las espinas		
absent or very small	absente à très petite	fehlend oder sehr klein	ausente o muy pequeña	Calico	1
small	petite	klein	pequeña	Chrysanthème, Vertu	3
medium	moyenne	mittel	media	Violet de Provence	5
large	grande	groß	grande		7
very large	très grande	sehr groß	muy grande	Spinoso Sardo	9

English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
47. Outer bract: mucron (+)	Bractée externe: mucron	Äußeres Deckblatt: aufgesetzte Spitze	Bráctea exterior: mucrón		
absent	absent	fehlend	ausente	Pètre, Chrysanthème	1
present	présent	vorhanden	presente	Camus de Bretagne	9
48. Receptacle: diameter (+)	Réceptacle: diamètre	Blütenboden: Durchmesser	Receptáculo: diámetro		
small	petit	klein	pequeño	Violet de provence	3
medium	moyen	mittel	medio	Camus de Bretagne	5
large	grand	groß	grande	Capitan, Salambo	7
49. Receptacle: thick- ness (+)	Réceptacle: épaisseur	Blütenboden: Dicke	Receptáculo: espesor		
thin	fin	dünn	delgado	Blanc Hyérois, Tudela	3
medium	moyen	mittel	media	Pètre	5
thick	épais	dick	grueso	Camus de Bretagne, Castel	7
50. Receptacle: shape in longitudinal section (+)	Réceptacle: forme en section longitu- dinale	Blütenboden: Form im Längsabschnitt	Receptáculo: forma de la sección longitudinal		
flat	plat	flach	plana	Carène	3
slightly depressed	légèrement en creux	leicht eingesenkt	ligeramente deprimida	Camus de Bretagne, Salambo	5
strongly depressed	fortement en creux	stark eingesenkt	muy deprimida	Chrysanthème, Blanc Hyérois	7
51. Tendency to produce lateral stems at base	Tendance à pro- duire des tiges latérales à la base	Neigung zur Bildung von Seitentrieben an der Basis	Tendencia a producir ramas laterales en la base		
weak	faible	gering	débil		3
medium	moyenne	mittel	media		5
strong	forte	stark	fuerte		7

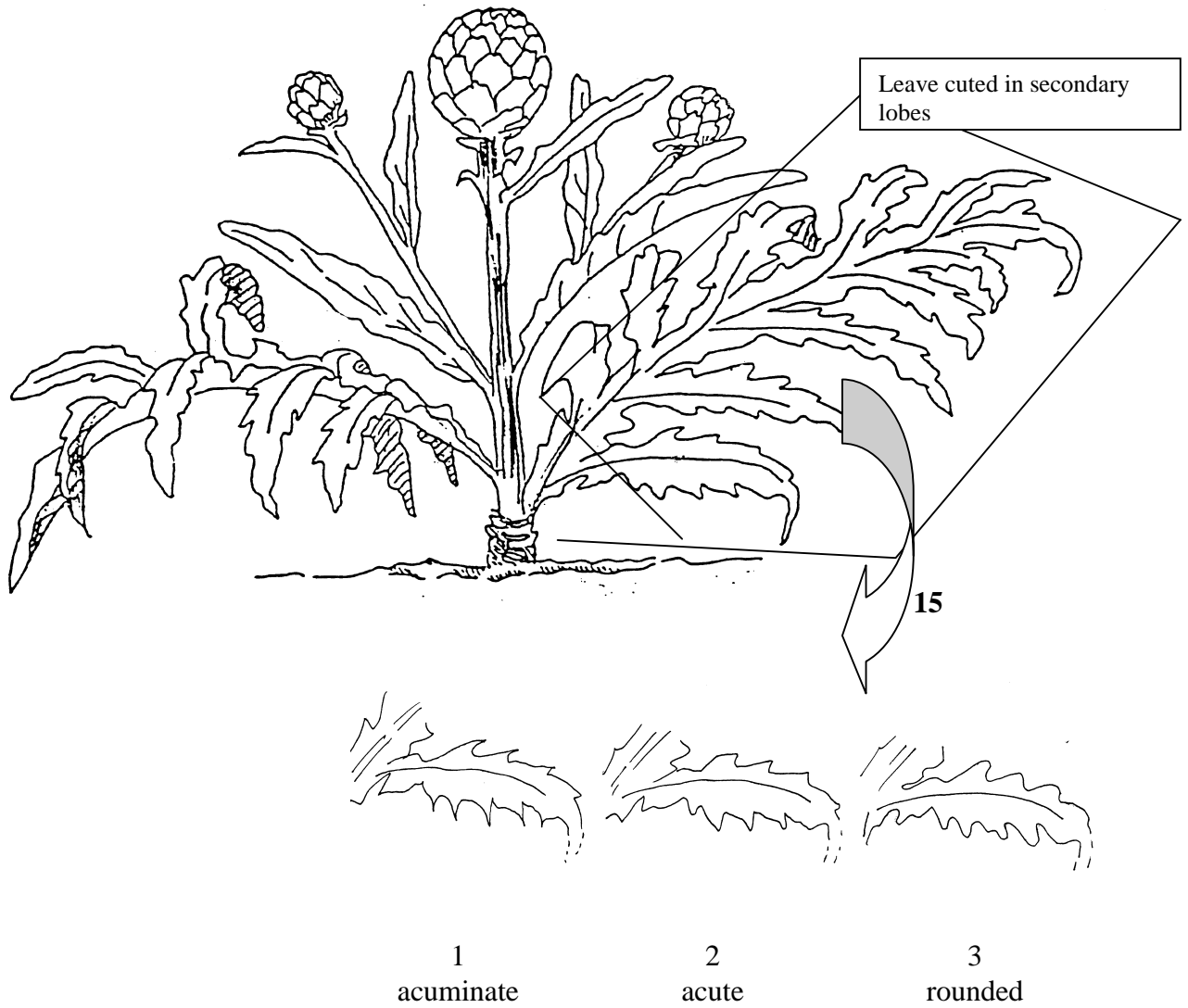
VIII. Explanation on the Table of Characteristics

Ad. 1, 3, 4 : Plant : height (including central flower head) (1); Main stem : height (3);
Main stem : distance between flower head and last developed leaf (4)

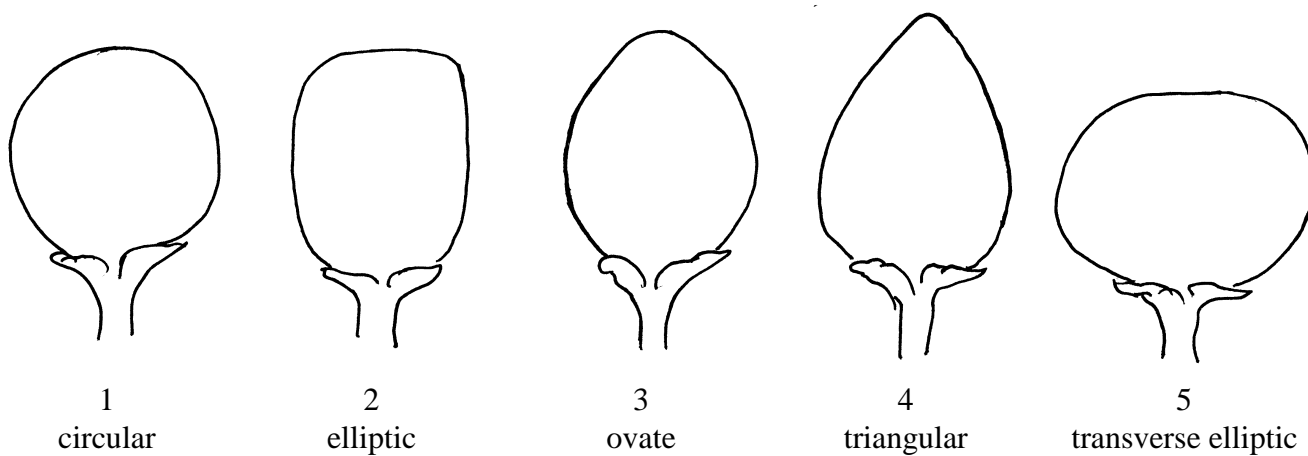


- C:** Central flower head
- L:** First flower head on lateral

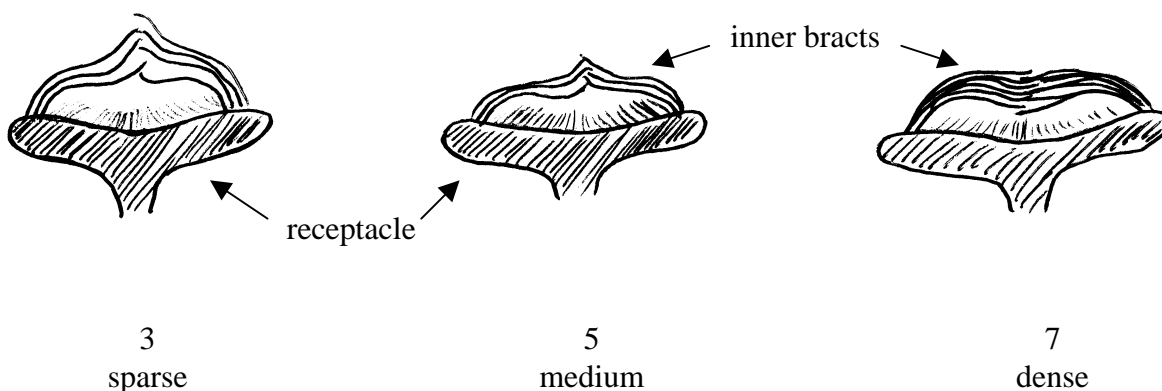
Ad. 15: Lobe: shape of tip of secondary lobes (on the 3rd – 4th whorl of leaves)



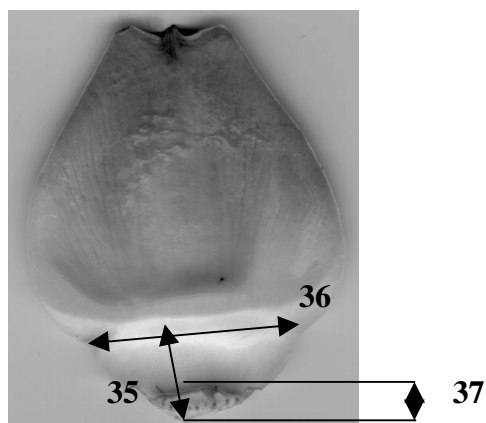
Ad. 26, 35: Central flower head (26) and First flower head on lateral (35): shape in longitudinal section



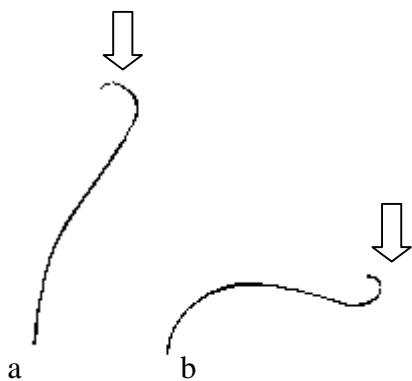
Ad. 30: Central flower head: density of inner bracts



Ad. 37, 38, 39: Outer bracts: length at base (37), width at base (38), thickness at base (39)



Ad. 45: Outer bract: reflexing at tip

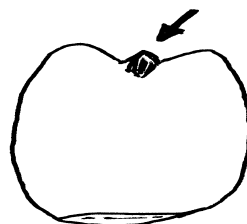


- a: reflexing at tip (on Chrysanthème)
- b: reflexing at tip (on Calice)

Ad. 47: Outer bract: mucron



1
absent

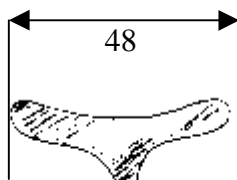


9
present

Ad. 48, 49, 50: Receptacle: diameter (48), thickness (49), shape in longitudinal section (50)



3
flat



5
slightly depressed



7
strongly depressed

IX. Literature

Basnizky J. and Zohary D. 1994: Breeding of seed-Planted Artichoke. Plant Breeding Reviews 12: 253-267

Foury C. 1967, Etude de la biologie florale de l'artichaut (*Cynara scolymus* L.); Application à la sélection. 1^{ère} partie: données sur la biologie florale, Ann. Amélior. Plantes 17 (4): 357-373

Foury C. 1969, Etude de la biologie florale de l'artichaut (*Cynara scolymus* L.); Application à la sélection. 2^{ème} partie: étude des descendances obtenues en fécondation contrôlée, Ann. Amélior. Plantes 19 (1): 23-52

Foury C. et Aubert S. 1977, Observations préliminaires sur la présence et la répartition de pigments anthocyaniques dans un mutant d'artichaut (*Cynara scolymus* L.) à fleurs blanches, Ann. Amélior. Plantes 27 (5): 603-612

Foury C. 1978, Quelques aspects de l'histoire des variétés d'artichaut (*Cynara scolymus* L.), Journal d'agric. traditionnelle et de botanique appliquée, XXV (1) janvier-mars 1978.

Foury C. 1979, Quelques aspects pratiques de la sélection généalogique de l'artichaut, 1-Présentation, création de lignées, Ann. Amélior. Plantes 29 (4): 383-418

Foury C. 1989, Ressources génétiques et diversification de l'artichaut (*Cynara scolymus* L.), Acta Horticulturae 242: 155-166

Pécaut P. and Martin F. 1993, Variation occurring after natural and in vitro multiplication of early Mediterranean cultivars of globe artichoke *Cynara scolymus* L.. Agronomie 13: 909-919

Zohary D. and Basnizky J. 1975, The cultivated artichoke – *Cynara scolymus* L. Its probable wild Ancestors. Economic Botany 29: 233-235

X. Technical Questionnaire

		Reference Number (not to be filled in by the applicant)
TECHNICAL QUESTIONNAIRE to be completed in connection with an application for plant breeders' rights		
1. Species	<i>Cynara scolymus</i> L. / <i>Cynara cardunculus var scolymus</i> L.	
	ARTICHOKE	
2. Applicant (Name and address)		
3. Proposed denomination or breeder's reference		
4. Information on origin, maintenance and reproduction of the variety		
4.1 Method of maintenance and reproduction		
(a) Vegetative propagation		[]
(b) Seed propagation		[]
- Hybrid.....		[]
- Open pollinated		[]
(c) Other (specify)		[]
4.2 Other information		

5. Characteristics of the variety to be indicated (the number in brackets refers to the corresponding characteristic in Test Guidelines; please mark the state of expression which best corresponds).

Characteristics	Example Varieties	Note
5.1 Leaf: lobbing (10 to 12 leaves stage) (7)		
absent	Tudela, Violet de Provence	1[]
present	Camus de Bretagne, Vertu	9[]
5.2 Central flower head: shape in longitudinal section (26)		
circular	Castel, Green Globe	1[]
elliptic	Chrysanthème, Vert de Provence	2[]
ovate	Cric, Salambo	3[]
triangular	Violet de Provence	4[]
elliptic transverse	Carène, Pètre	5[]
5.3 Central flower head: shape of tip (27)		2[]
acute	Violet de Provence	1[]
rounded	Camus de Bretagne	2[]
flat	Chrysanthème	3[]
depressed	Carène, Pètre	4[]
5.4 Central flower head: time of appearance (28)		
early	Chrysanthème, Tudela	3[]
medium	Blanc Hyérois	5[]
late	Camus de Bretagne	7[]

Characteristics	Example Varieties	Note
5.5 Outer bract: color (outer side) (43)		
green	Blanc hyérois, Vert de Provence, Tudela	1[]
green striped with violet	Violet de Provence	2[]
violet striped with green	Chrysanthème	3[]
mainly violet	Cric, Salambo	4[]
entirely violet	Velours	5[]

6. Similar varieties and differences between these varieties

Denomination of similar variety	Characteristic in which the similar variety is different ^{o)}	State of expression of similar variety	State of expression of candidate variety

^{o)} In the case of identical states of expressions of both varieties, please indicate the size of the difference.

7. Additional information which may help to distinguish the variety

7.1 Main use

(a) Fresh market

- large flower head []
- small flower head []

(b) Canning

- receptacle []
- bottom []
- pickling artichoke []

(c) Industrial use

- leaf extraction []
- biomass []

(d) Other (please specify) []

.....

7.2 Resistance to pests and diseases

7.3 Special conditions for the examination of the variety

7.4 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 that question is yes, please attach a copy of such an authorization.

[End of document]

FRENCH TRANSLATION:

7. Additional information which may help to distinguish the variety	
7.1 Main use	
(a) Fresh market / marché de frais	
- large flower head / gros capitules	[]
- small flower head / en bouquet	[]
(b) Canning / Conserverie	
- receptacle / fond	[]
- bottom / cœur	[]
- pickling artichoke / au vinaigre	[]
(c) Industrial use /Utilisation industrielle	
- leaf extraction / extraction foliaires	[]
- biomass / biomasse	[]
(d) Other (please specify) / Autre (spécifier)	[]
.....	