

TG/TEA(proj.2)
ORIGINAL: English
DATE: 2006-05-31

INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS

GENEVA



TEA

UPOV code: CMLIA SIN

Camellia sinensis (L.) Kuntze

GUIDELINES

FOR THE CONDUCT OF TESTS

FOR DISTINCTNESS, UNIFORMITY AND STABILITY

prepared by an expert from China

to be considered by the Technical Working Party for Agricultural Crops at its thirty-fifth session to be held in Beijing, China, from July 3 to 7, 2006

Alternative Names:*

Botanical name	English	French	German	Spanish
Camellia sinensis (L.) Kuntze Thea sinensis L.	Tea	Théier	Tee, Teestrauch	Té

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.]

TABLE OF CONTENTS

D			71	
Ρ	Д	(т	н

1.	SUBJECT OF THESE TEST GUIDELINES	3
2.	MATERIAL REQUIRED	3
3.	METHOD OF EXAMINATION	3
	3.1 Number of Growing Cycles	3
	3.2 Testing Place	3
	3.3 Conditions for Conducting the Examination	3
	3.4 Test Design	4
	3.5 Number of Plants / Parts of Plants to be Examined	4
	3.6 Additional Tests	4
4.	ASSESSMENT OF DISTINCTNESS, UNIFORMITY AND STABILITY	4
	4.1 Distinctness	4
	4.2 Uniformity	5
	4.3 Stability	
5.	GROUPING OF VARIETIES AND ORGANIZATION OF THE GROWING TRIAL	5
6.	INTRODUCTION TO THE TABLE OF CHARACTERISTICS	6
	6.1 Categories of Characteristics	6
	6.2 States of Expression and Corresponding Notes	6
	6.3 Types of Expression	6
	6.4 Example Varieties	6
	6.5 Legend	6
7.	TABLE OF CHARACTERISTICS/TABLEAU DES	
	CARACTÈRES/MERKMALSTABELLE/TABLA DE CARACTERES	
8.	EXPLANATIONS ON THE TABLE OF CHARACTERISTICS	
	8.1 Explanations covering several characteristics	
	8.2 Explanations for individual characteristics	
9.	LITERATURE	26
10	TECHNICAL OUESTIONNAIRE.	27

TG/TEA(proj.2) Tea, 2006-05-31

- 3 -

1. Subject of these Test Guidelines

These Test Guidelines apply to all varieties of *Camellia sinensis* (L.) O. Kuntze and its closely related species in *Camellia* Sect. *Thea*

2. <u>Material Required</u>

- 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 one-year-old rooted cuttings.
- 2.3 The minimum quantity of plant material, to be supplied by the applicant, should be:

20 rooted cuttings.

- 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 one consecutive growing cycle.

3.2 Testing Place

The test should normally be conducted at one place. If any characteristics of the variety, which are relevant for the examination of DUS, cannot be seen at one place, the variety may be tested at an additional place.

3.3 Conditions for Conducting the Examination

3.3.1 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. Observations should be made on plants which are at least two years after being planted.

TG/TEA(proj.2) Tea, 2006-05-31

3.3.2 The recommended method of observing the characteristic is indicated by the following key in the second column of the Table of Characteristics in Chapter 7:

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

3.4 Test Design

- 3.4.1 Each test should be designed to result in a total of at least 10 plants.
- 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 Number of Plants / Parts of Plants to be Examined

Unless otherwise indicated, all observations should be made on 10 plants or parts taken from each of 10 plants.

3.6 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.

4.2 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 1% and an acceptance probability of at least 95% should be applied. In the case of a sample size of 10 plants, 1 off-type is 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 tested, either by growing a further generation, or by testing a new plant stock to ensure that it exhibits the same characteristics as those shown by the previous 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 It is recommended that the competent authorities use the following characteristics for grouping varieties:
 - (a) Plant: stem type (characteristic 2)
 - (b) Young shoot: color of the second leaf at 'two and a bud' stage (characteristic 7)

TG/TEA(proj.2) Tea, 2006-05-31

- (c) Leaf blade: length (characteristic 13)
- (d) Leaf blade: color (characteristic 16)
- 5.4 Guidance for the use of grouping characteristics, in the process of examining distinctness, is provided through the General Introduction.
- 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

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.

6.3 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

TG/TEA(proj.2) Tea, 2006-05-31 - 7 -

MG: single measurement of a group of plants or parts of plants – see Chapter 3.3.2

MS: measurement of a number of individual plants or parts of plants – see Chapter 3.3.2

VG: visual assessment by a single observation of a group of plants or parts of plants – Chapter 3.3.2

VS: visual assessment by observation of individual plants or parts of plants" – see Chapter 3.3.2

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

TG/TEA(proj.2) Tea, 2006-05-31 - 8 -

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

		English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
1. (*)	VG	Plant: vigor					
QN		weak					3
		medium				Longjing 43	5
		strong				Yunkang 10	7
2. (*) (+)	VG	Plant: stem type					
PQ		shrub					1
		semi-arbor					2
3. (*) (+)	VG	Plant: growth habit					
QN		erect					1
		semi-erect					3
		spreading					5
4.	VG	Plant: branch density					
QN		sparse				Yunkang 10	3
		medium				Biyun	5
		dense				Tengcha	7
5. (*) (+)	VG	Branch: zigzaging	į.				
QL		absent					1
		present					9

		English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
6. (*)	MG/ VG	Young shoot: time of beginning of 'one and a bud' stage					
QN	(a)	early				Longjing 43	3
		medium				Biyun	5
		late				Qianmei 419	7
7. (*) (+)	VG	Young shoot: color of the second leaf at 'two and a bud' stage					
PQ	(a)	whitish					1
		yellow green					2
		light green					3
		medium green					4
		purple green					5
8. (*) (+)	VG	Young shoot: bud pubescence					
QL	(a)	absent					1
		present					9
9.	VG	Young shoot: density of bud pubescence					
QN	(a)	weak				Longjing 43	3
		medium				Biyun	5
		strong				Yunkang 10	7
10. (*) (+)	VG	Young shoot: anthocyanin coloration in the base of the petiole					
QL	(a)	absent					1
		present					9

		English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
11. (*)	VG/ MS	Young shoot: length of 'three and a bud'					
QN	(a)	short				Xicha 11	3
		medium				Longjing 43	5
		long				Qianmei 419	7
12. (*) (+)	VG MS	Leaf: attitude					
PQ	(b)	upwards					3
		outwards					5
		downwards					7
13. (*)	VG MS	Leaf blade: length					
QN	(b)	short				Biyun	3
		medium				Qianmei 419	5
		long				Yinghong 1	7
14. (*)	VG MS	Leaf blade: width					
QN	(b)	narrow				Tengcha	3
		medium				Qianmei 419	5
		broad				Yunkang 10	7
15. (*) (+)	VG	Leaf blade: shape					
PQ	(b)	near rounded					1
		elliptic					2
		oblong					3
		lanceolate					4

		English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
16. (*) (+)	VG	Leaf blade: color					
PQ	(b)	yellow green					1
		light green					2
		medium green					3
		dark green					4
17.	VG	Leaf blade: cross section					
(+)		section					
QN	(b)	convex					1
		flat					2
		concave					3
18.	VG	Leaf blade: texture of upper surface	•				
QN	(b)	smooth				Hanlv	1
		slightly rugose				Tengcha	2
		rugose				Qianmei 419	3
19. (*) (+)	VG	Leaf blade: shape of apex					
PQ	(b)	acuminate					1
		acute					2
		obtuse					3
20.	VG	Leaf blade: undulation of					
(+)		margin					
QN	(b)	absent or very weak					1
		medium					2
		strong					3

		English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
22.	VG	Leaf blade: serration of					
(+)		margin					
PQ	(b)	denticulate/weak?					1
		crenulate/medium?					2
		serreulate/strong?					3
22. (*) (+)	VG	Leaf blade: base shape					
PQ	(b)	attenuate					1
		rounded					2
23.	MG	Flower: time of full flowering					
QN	(c)	early				Longjing 43	3
		medium				Yinghong 1	5
		late				Qianmei 419	7
24.	VG MS	Flower: length of pedicel					
QN	(c)	short					3
		medium				Biyun	5
		long				Yangshulin 783	7
25. (*)	VS	Flower: pubescence on sepal on outer side					
QL	(c)	absent				Longjing 43	1
		present				Qianmei 419	9
26. (*)	VG	Flower: color of sepal					
PQ	(c)	green				Longjing 43	1
		purple				Biyun	2

		English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
27. (*)	VG MS	Flower: diameter					
QN	(c)	small				Yangshulin 783	3
		medium				Xicha 11	5
		large				Yunkang 10	7
28.	VG	Flower: color of inner petals					
PQ	(c)	white					1
		greenish					2
		pink					3
29. (*) (+)	VS	Flower: ovary pubescence					
QL	(c)	absent					1
		present					9
30.	VS	Flower: density of ovary pubescence					
QN	(c)	weak					3
		medium				Longjing 43	5
		strong				Qianmei 419	7
31.	VG	Flower: length of style					
QN	(c)	short				Yangshulin 783	3
		medium				Biyun	5
		long				Xicha 11	7

		English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
32. (*) (+)	MS	Flower: number of style splittings	•				
PQ	(c)	stage 1					1
		stage 2					2
33. (*) (+)	VG	Flower: position of style splitting	•				
QN	(c)	low					3
		medium					5
		high					7
34. (*) (+)	VG	Flower: position of stigma relative to stamens	•				
QN	(c)	below					1
		same level					2
		above					3
35. (*) (+)	MG	Fermentation ability					
PQ	(a)	weak				Longjing 43	3
		medium				Qianmei 419	5
		strong				Yunkang 10	7
36.	MG	Caffeine content					
(+)							
QN	(d)	state 1					1
		state 2					2
		state 3					3
		state 4					4
		state 5					5

TG/TEA(proj.2) Tea, 2006-05-31 - 15 -

8. Explanations on the Table of Characteristics

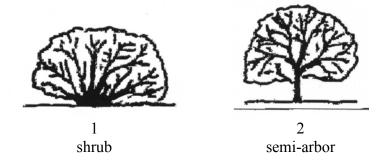
8.1 Explanations covering several characteristics

Characteristics containing the following key in the second column of in the Table of Characteristics should be examined as indicated below:

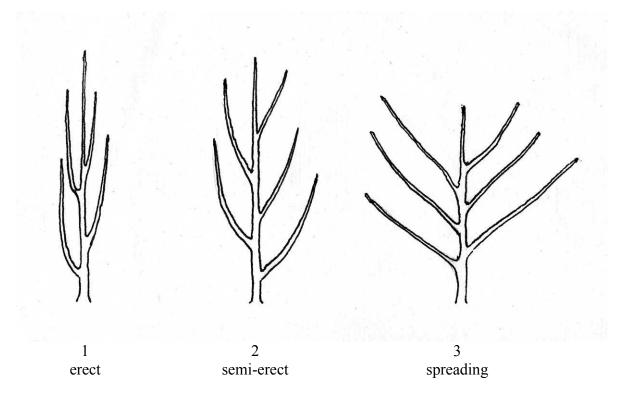
- (a) Observations on the young shoot should be made in the first flush of the year.
- (b) Observations on the leaf blade should be made in summer or autumn on fully developed leaves from the middle of a well-developed current season shoot.
- (c) All observations on the flower should be made on fully developed flowers at the blooming stage.
- (d) The measurement of caffeine content should be made using the "two and a bud" samples harvested from the first flush of the year. After harvesting, the shoots should be dried immediately by 120-125 C hot air and storage at room temperature till they are analyzed.

8.2 Explanations for individual characteristics

Ad. 2: Plant: stem type

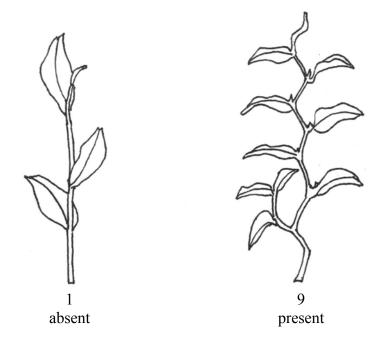


Ad. 3: Plant: growth habit

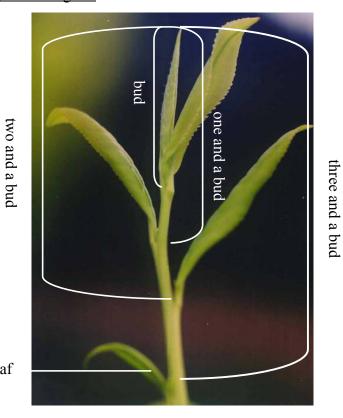


TG/TEA(proj.2) Tea, 2006-05-31 - 17 -

Ad. 5: Branch: zigzagging



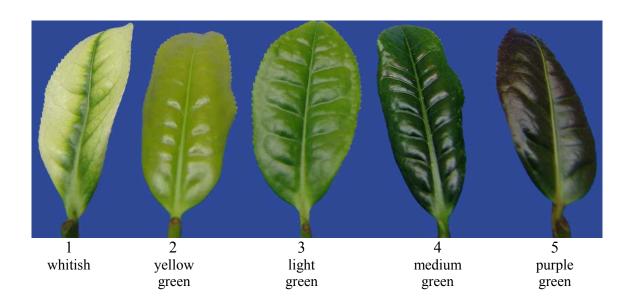
Ad. 6-11: young shoot diagram



fish leaf

TG/TEA(proj.2) Tea, 2006-05-31 - 18 -

Ad. 7: Young shoot: color of the second leaf at 'two and a bud' stage

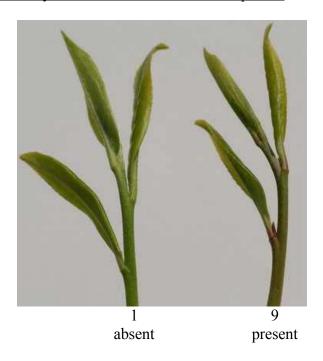


Ad. 8: Young shoot: bud pubescence

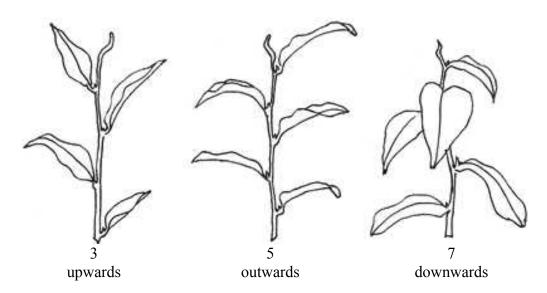




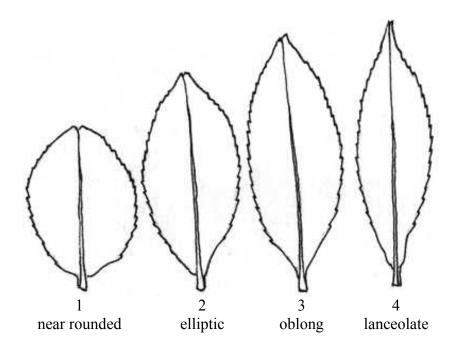
Ad. 10: Young shoot: anthocyanin coloration in the base of petiole



Ad. 12: Leaf: attitude



Ad. 15: Leaf blade: shape



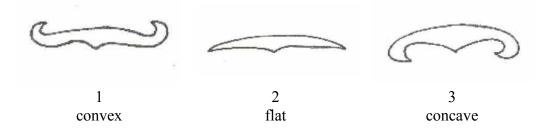
state 1 near rounded length/width ratio <2.0 2.0-2.5 state 2 elliptic state 3 oblong 2.6-3.0 state 4 lanceolate

Ad. 16: Leaf blade: color

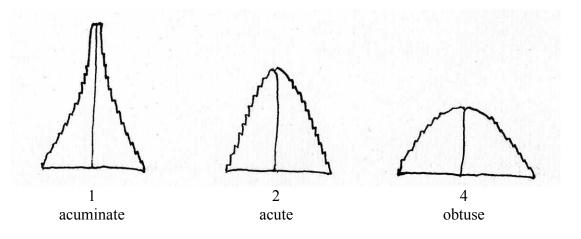


>3.0

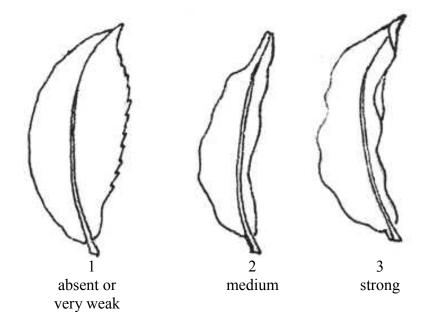
Ad. 17: Leaf blade: cross section



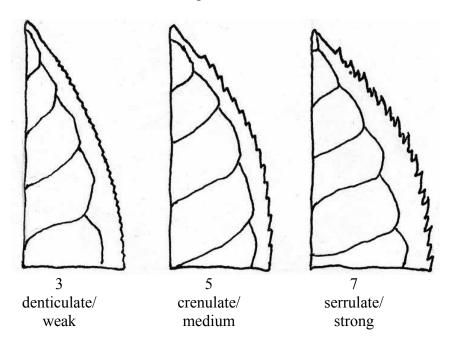
Ad. 19: Leaf blade: apex shape



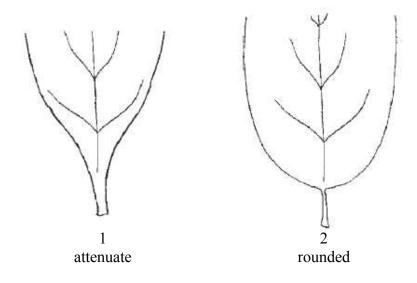
Ad. 20: Leaf blade: undulation of margin



Ad. 21: Leaf blade: serration of margin

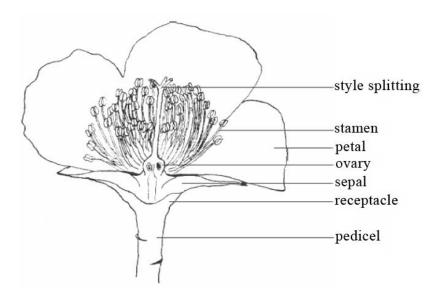


Ad. 22: Leaf blade: base shape

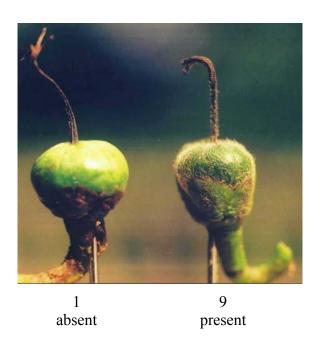


TG/TEA(proj.2) Tea, 2006-05-31 - 23 -

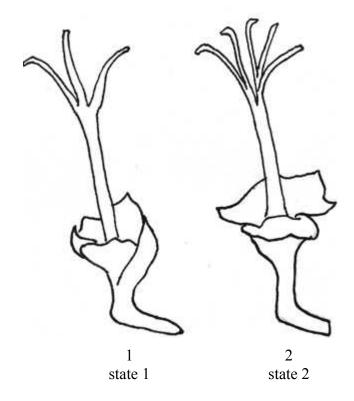
Ad. 23-34: Flower: diagram



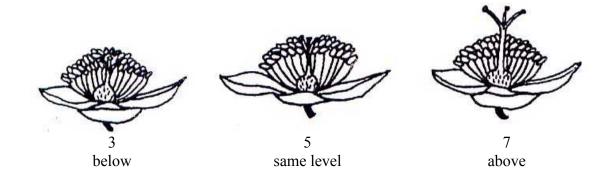
Ad. 29: Flower: ovary pubescence



Ad. 32: Flower: number of style splittings



Ad. 34: Flower: position of stigma relative to stamens



Ad. 35: Fermentation ability

Determined by chloroform test. Inserting the 'two and a bud' young shoots onto a plate in an airtight container containing 1.5-2.0 cm depth chloroform, and then record the time of the shoots turning brown.

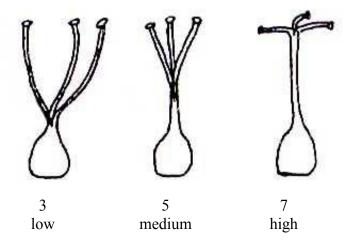
TG/TEA(proj.2) Tea, 2006-05-31 - 25 -

Ad. 36: Caffeine content

Method ISO 10727:1995 'Tea and instant tea in solid form -- Determination of caffeine content -- Method using high-performance liquid chromatography' should be used.

State 1	<0.5%
State 2	0.6-2.0%
State 3	2.1-3.5%
State 4	3.6-5.0%
State 5	>5.0%

Ad. 37: Flower: position of style splitting



TG/TEA(proj.2) Tea, 2006-05-31 - 26 -

9. <u>Literature</u>

Chang, H. T., Bartholomew, B.: 1984 "Camellias", Timber Press, Portland, Oregon, USA

Chen, L., Yang, Y, J., Yu, F. L.: 2005 "Descriptors and data standard for tea (*Camellia* spp.)", China Agricultural Press, Beijing, China

Chen, L., Yu, F. L., Tong, Q. Q.: 2000 "Discussions on phylogenetic classification and evolution of section *Thea*", Journal of Tea Science, 20(2): 89-94

IPGRI: 1997 "Descriptors for tea (Camellia sinensis)". International Plant Genetic Resources Institute, Rome, Italy

Ming, T. L.: 1992 "A revision of *Camellia Sect. Thea*", Acta Botanica Yunanica, 14(2):115-132

TG/TEA(proj.2) Tea, 2006-05-31 - 27 -

10. <u>Technical Questionnaire</u>

TEC	HNICAL QUESTIONNAIR	Е	Page {x} of {y}	Reference Number:	
				Application date: (not to be filled in by the applicant)	<u> </u>
			NICAL QUESTIONN tion with an application	NAIRE on for plant breeders' rights	
1.	Subject of the Technical Qu	esti	onnaire		
	1.1 Genus	Car	mellia (L.)		
	1.1.1 Botanical name (species)				
	1.1.2 Common name	Tea	1		
2.	Applicant				
	Name				
	Address				
	<u> </u>				
	Telephone No.				
	Fax No.				
	E-mail address				
	Breeder (if different from ap	pli	cant)		
	L				
3. and b	Proposed denomination preeder's reference				
	Proposed denomination (if available)				
	Breeder's reference				

TECHNICAL QUESTIONNAIRE Page {x} of {y} Reference						per:				
[#] 4. Information on the breeding scheme and propagation of the variety										
	4.1	Breedi	Breeding scheme							
		Variet	y resulting from:							
		4.1.1	Crossing							
			(a) controlled (please state	I	. 1					
		(ies))								
			(c) unknown c	ross	[]				
		4.1.2	I]						
	4.1.3 Discovery and development (please state where and when discovered and how developed)									
		4.1.4	Other (please provide d							
4.2	4.2 Method of propagating the variety									
		(a)	cuttings		[]				
	(b) in vitro propagation]				
	(c) other (state method) []									

 $^{^{\#}}$ Authorities may allow certain of this information to be provided in a confidential section of the Technical Questionnaire.

TG/TEA(proj.2) Tea, 2006-05-31 - 29 -

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 Varieties	Note
5.1 (2)	Plant type		
	shrub		1[]
	semi-arbor		2[]
5.2 (7)	Young shoot: color of the second leaf at 'two and a bud' stage		
	whitish		1[]
	yellow green		2[]
	light green		3 []
	medium green		4[]
	purple green		5[]
5.3 (13)	Leaf blade: length		
	short	Biyun	3 []
	medium	Qianmei 419	5[]
	long	Yinghong 1	7[]
5.4 (16)	Leaf blade: color		
	yellow green		1[]
	light green		2[]
	medium green		3 []
	dark green		4[]

TG/TEA(proj.2) Tea, 2006-05-31 - 30 -

TECHNICAL QUESTI	ONNAIRE	Page {x}	of {y}	Reference Nu	ımber:				
Characteristics	ample Varieties								
6. Similar varieties	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 knotgledge, 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	Characteri which your variety diffe similar va	candidate rs from the	of the cha	the expression aracteristic(s) he similar liety(ies)	Describe to expression of characteristic(f the (s) for			
Example	Leaf blade: a	ipex shape	ас	cuminate	obtuse				
Comments:									

TG/TEA(proj.2) Tea, 2006-05-31 - 31 -

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 ye	es, pleas	e provide details)						
7.2	7.2 Are there any special conditions for growing the variety or conducting the examination								
	Yes	[]		No []				
	(If ye	es, pleas	e provide details)						
7.3	Othe	r inform	nation						
8.	Auth	orizatio	on 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	e answe	r to (b) is yes, pleas	se attach	а сору	of the	authorization.		

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

TG/TEA(proj.2) Tea, 2006-05-31 - 32 -

TEC	HNIC	CAL QUESTIONNAIRE	Page {x} of {y}	Reference N	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. viru	s, bacteria, phytoplasn	na)	Yes []	No []		
	(b)	Chemical treatment (e.g. g	growth retardant, pestic	eide)	Yes []	No []		
	(c)	Tissue culture			Yes []	No []		
	(d)	Other factors		Yes []	No []			
	Please provide details for where you have indicated "yes".							
9.3 Has the plant material to be examined been tested for the presence of virus or other pathogens?								
	Yes	[]						
(please provide details as specified by the Authority)								
	No	[]						
10. I hereby declare that, to the best of my knowledge, the information provided in this form is correct:								
	Applicant's name							
	Signature Date							