MANUFACTURING PROPERTIES OF CEYLON TEA CLONES

D. Kirtisinghe, W. A. C. de Silva & S. Samarasingham

This paper presents an up-to-date summary of the information that is now available on the manufacturing properties of tea clones selected in Ceylon by individual estates and by the Tea Research Institute. It must be emphasized that the classification relates only to manufacturing properties and does not take into account other clonal characteristics. All previous classifications are cancelled with the publication of this paper.

Several changes of a supplementary and revisionary nature have been made to the information first published on the manufacturing properties of Ceylon tea clones (Keegel 1959). This paper summarizes and reviews this information which is scattered throughout the literature and attempts to produce once more, a single list for easy reference.

The scheme of clonal classification has been revised and clones have now been divided into five groups on the following basis :

Group 1	—	Excellent quality
Group 2	—	Good quality
Group 3	—	Satisfactory quality
Group 4	—	Little quality
Group 5	—	Poor quality

The scheme is based on the means of the tea tasting evaluations of several manufacturing tests carried out at St Coombs on each clone. It is possible, therefore, that a clone falling into group 5 may have good quality or even flavour under favourable weather conditions, but it can be assumed that over a reasonable period of time, clones in group 1 will have more liquoring quality than those in group 2, which in turn will surpass those in group 3 *etc.*

It must be emphasized here that this clonal classification is based on *quality evaluations alone* and that other important factors such as rooting ability, yield potential, tolerance to pests and diseases *etc* have *not* been taken into consideration. For instance, clone TRI 777 classified in group 1 makes an excellent tea but its yield potential is too low to interest many estates. Similarly, clone TRI 2142 which produces an exceptionally good tea with the added advantage of being highly tolerant to the Root-Lesion Nematode *Pratylenchus loosi,* is also of little commercial interest because of its yield, except perhaps in areas that are badly eelworm infested.

The large majority of these clones have been classified into these groups on the basis of experimental manufactures carried out by the miniature manufacturing technique (Keegel 1954), and on their evaluations by the traditional tea tasting methods. These findings have been confirmed by commercial-scale manufactures in a few instances where clonal leaf has been available in sufficient quantity.

The clones are listed in their five groups in Tables 1 to 5.

TABLE 1—*Classification Group 1—Clones with excellent manufacturing quality*

Origin	Clone	Remarks	*References
St Coombs	TRI 777	A very attractive tea	1,2,3
	TRI 1294	Pungent liquor with a very bright coppery infusion	1,2
	TRI 1526	Harsh liquor, otherwise outstanding	1,2
	TRI 2142	Promising quality—Bright, coppery infusion	1,2,4,5,6
Diyanilakelle	DK 19	Very useful clone—Good liquor	1,2,3,5
Drayton	DT 1	Excellent clone with a very bright coppery infusion	1,2,4,7
Harrow	H 8/2	Promising clone—Nice quality	8
Neluwa	NL 4/2	Consistent quality—Useful clone	2,7
Norwood	N 2	Useful clone	—
Sirikandura	S 106	Coppery infusion and creams down well	1,2
Tillicoultry	TC 9	A very attractive tea	2,7,9
Waltrim	WT 26	Very good all round tea	7,12
Wootton	W 3	Useful strength and colour	1,2,5
	W 14	Nice quality, attractive liquor	1,2,3,5

TABLE 2—*Classification Group 2—Clones with good manufacturing quality*

Origin	Clone	Remarks	*References
St Coombs	TRI 407	Useful strength and colour—Would suit mid-country requirements	1,2,3,6
	TRI 425	Promising quality	1,2,7,11
	TRI 1001	Useful strength and colour—Would suit mid-country requirements	1,6
	TRI 2077	Above average quality. All round tea	6
Bogawana	B 95	All round tea, above average quality	1,2,5,6
Brunswick	BW EM 9	All round tea	7
Chapelton	C 103	A clone to suit mid-country requirements. Good colour and strength	6
Concordia	CC 72	—	—
Diyanilakelle	DK 11	All round tea	1,2,5,6
	DK 17	Useful strength and colour. Would suit mid-country requirements	6
Downside	DW 73	Fair all rounder, good colour	10
	DW 317	Fair all rounder	10
Dunsinane	DUN	—	2
	DUN 7	—	7

Origin	Clone	Remarks	*References
Craigie Lea	CLEA 6	All rounder	2,7
Gartmore	B 3	Useful clone	8
	B 7	Useful clone	8
	B 18	Useful clone	8
Harrow	H 1/3	—	8
	H 10/4	—	8
	H 11/6	—	8
	H 12/1	—	8
	H 17/4	—	8
Hauteville	HV	Good colour and strength	6
Mooloya	MO 241	All round tea	7
Rutland	RL/B	Good strength and colour and suits mid-country requirements	6
	RL/80	—	6
Talankande	TK 45	Useful strength and colour Good as a mid-country tea	6

TABLE 3—*Classification Group 3—Clones with satisfactory manufacturing quality*

Origin	Clone	Remarks	*References
St Coombs	TRI 4	All round tea	1,2
	TRI 14	Rather green	1
	TRI 15	Good tea	1
	TRI 16	Useful strength and colour, suits mid-country requirements	1,3,6
	TRI 21	Useful strength and colour, suits mid-country requirements	1
	TRI 23	Useful strength and colour, good mid-country tea	1,3,6
	TRI 25	Rather light liquor	1,12
	TRI 37	Very rapid fermenter	1,2
	TRI 43	All round tea	1,2
	TRI 45	Useful strength and colour, suits mid-country requirements	1,2,3,6
	TRI 46	Fast fermenter, good coppery infusion	1
	TRI 128	Good all rounder	1,2
	TRI 170	Useful strength and colour, suits mid-country requirements	1,2,3,6
	TRI 216	Good all round tea	1,2
	TRI 222	—	1
	TRI 331	Appear very promising, coppery infusion	1,2
	TRI 483	Useful colour and quality	1,2
	TRI 769	Coloury and strong	1
	TRI 784	Fast fermenter	1
	TRI 928	Fairly good all rounder	1,2
	TRI 1002	Good all rounder	1
	TRI 1005	Good tea, but greenish character	1,2
	TRI 1016	Useful strength and colour suits mid-country requirements	1,3,6
	TRI 1076	A little green	1,2
	TRI 1082	Mellow smooth liquor	1,2
	TRI 1446	All round tea	1,2,7

Origin	Clone	Remarks	*Reference
	TRI 1456	Good all round tea	1,2
	TRI 1530	Round and useful liquor	1,2
	TRI 2020	Liquor slightly greenish, useful quality	1,2
	TRI 2021	Useful tea	1,2
	TRI 2023	Fairly good all round tea	1,2
	TRI 2024	Commendable quality, rather green	1,2,7
	TRI 2027	Promising quality, good colour	—
	TRI 2041	Bright, coppery infusion	1,2
	TRI 2115	Coloury liquor	1,2,3,6
	TRI 2116	Coloury liquor	1,2
	TRI 2145	A very useful clone	1
	TRI 2151	Useful clone	1,2,5
	TRI 2138	Useful strength and colour, suits mid-country requirements	6
	TRI 3011	All round tea	6
Abbotsleigh	ABB-AL 2/33	Useful clone	7
Albion	ABB-3B2	All round tea	6
	B-3B5	All round tea	6
Carolina	CAR 2/18	Good all rounder	2,7
	CAR 7/10	Useful clone	7
	CAR 7/10A	Useful clone	2
	CAR 7/10B	—	2
Chapleton	C 12	—	6
	C 38	Useful clones	2,7
	C 41	—	6
Concordia	CC 72	—	—
Diyagama	D	Greenish, dull infusion	1,2
Diyanilakelle	DK 2	Rather green	6
	DK 3	All rounder	6
	DK 8	All round tea	1,2,5
	DK 9	Useful clone	2,6
	DK 13	All rounder	2,6
	DK 16	Useful all rounder	1
Downside	BR 1	—	10
Ederapola	ED 46	—	2
Eildon Hall	EH 8/15	—	7
Galatura	G 14	Fair all rounder	2
	G 15		
	G 16		
Gartmore	B 2	—	8
	B 5	—	8
	B 15	—	8
Glassaugh	GL 48	Good all rounder	1
Goatfell	GF 5/01	—	10
	GF 7/6	—	2,7
Great Western	GW 19	Fair all rounder	2,7
Hethersett	HS 10/A	—	9,10
Harrow	H 1/2	Useful clones	8
	H 2/1		8
	H 5/1		2,7,8
	H 11/1		8
	H 16/2		8
	H 10/3		8
	H 14/3		8

Origin	Clone	Remarks	*Reference
Karapinchawatte	KP 9	Useful clone	9
Kenilworth	KEN 15/7	Useful colour and strength	1,2
	KEN 15/8	Fair all round tea	1,2,3,6
	KEN 15/13	Fair all rounder	1,2,3,6
	KEN 16/3	Very green, dull infusion	1,2,3,6,7
Kirkoswald	K 136	—	6,7
	K 145	Rather green and plain—Good colour	1,2,6,7
	K 150	Good colour, useful all rounder	1,2,7
	K.EEUD 65	—	2,7
Mattakelle	MK 2	Useful colour and strength	6
	MK 5	Fair quality	6
Mooloya	MO 20	Useful clones	7
	MO 21		7
	MO 110		7
	MO 114		7
	MO 116		4,7
	MO 134		7
	MO 208		7
	MO 209		7
Moray	M 21	Fair all rounder	1,2
	M 23	Fair all round tea	2
	M 25	Fair all round tea	2
	M 222	—	2
	MH	Coppery infusion	1,2
Nayabedde	NAY 3	Good bright infusion	1,2
Neluwa	NL 3/1	Useful clone	2,7
	NL 8/3	—	2,7
Ouvahkellie	OK 3	—	1,2,3,6
	OK 4	—	1,2
	VK 9	Rather greenish, but useful strength	1,2
Panwatte	PW 14	Fairly good all rounder with useful quality	9,10
Park	PK 2	—	10
Pedro	PD 1/5	Useful all rounder	9
	PD 13/7	Useful all rounder	9
Ragala	R-B/275	—	7
Rutland	RL/E	Greenish infusion, coloury liquor	1,6
	RE	—	2
	RL/D	—	6
Sirikandura	S 123	—	1,2
St Margarets	SM 404	—	10
Talankande	TK 42	Rather green, useful liquor	1,2,5,6
	TK 48	Poor fermenter, somewhat green liquor	1,2
	TK 53	Useful colour and strength	6
	TK 69	Fair quality	6
Uda Radella	UR 1	—	9,10
	UR 12	Bright infusion, useful strength and colour	1,2
Waltrim	WT 23/F2	All round tea	6
	WT 24/F2	All round tea	6
	WT 30/F3	Fair quality	6
	WT 34/F3	Useful colour and strength	6
	WT 36	All round tea	7
	WT 37	—	7

TABLE 4—*Classification Group 4—Clones with little manufacturing quality*

Origin	Clone	*References
St Coombs	TRI 1	1,2
	TRI 19	1
	TRI 32	1
	TRI 33	1
	TRI 34	1
	TRI 235	1,2
	TRI 293	1,2
	TRI 343	1,2
	TRI 397	1,2
	TRI 603	1,2
	TRI 679	1
	TRI 708	1,2
	TRI 839	1,2
	TRI 862	1,2
	TRI 934	1,2
	TRI 999	1,2
	TRI 1000	1
	TRI 2016	1,2,7
	TRI 2022	1,2,7
	TRI 2025	1,2,7
	TRI 2042	1,2
	TRI 2065	1,2,3,6
	TRI 2086	1,2
	TRI 2091	1,2
	TRI 2114	1,2
	TRI 2118	1,2,7
	TRI 2120	2,7
	TRI 2137	6
	TRI 3012	6
Aislaby	AL 3/4	2,7
	AL 10/24	2,7
Balangoda	MT 18	2,7
Bogawana	B 77	6
Brunswick	BW-CB2A1	2,7
	BW-CB3B3	2,7
	BW-CB1B2	7
	BW-1B2	2
	BW-DT 1/47	2,7
	BW-DT 1/56	2
Carolina	CAR 7/3	2,7
	CAR 7/4	2, 7
Chapelton	C 171	1,2,6
	C 33	7
	C 33A	2
Concordia	CC 34	–
	CC/CL 30	–
	CC/CL 64	–
Craighead	CH 13	1,2,5,7
Dambatenne	DA 434	1
Diyagama	D 32	2
	DN	1,2,5
Diyanilakelle	DK 1	1,2,4
	DK 24	6
Downside	DW 304	10
Drayton	DT 95	1,2,4,7,11
	DT 1001	2
Galatura	G 19	2
Glenanore	GN 10/1	6
Glentilt	GLEN 6/3	2,7
Kew	KEW 4A/2	1,2
	KEW 4A/4	1,2
	KEW 14/1	1,2
Kenilworth	KEN 13/3	1,2
	KEN 22/1	1,2
Kirimetiya	KM 247	1
Kirkoswald	K-EEUD 20	2,7
	K-EEUD 163	2,7
Luckyland	LLF 14/2	2,7

Origin	Clone	*Reference
Maliboda	MB 33	2
Marigold	DON 3N1	2,7
Mooloya	MO 16	7
	MO 146	4,7
	MO 33	7
	MO 220	7
Ouvahkellie	OK 2	1,2
	VK 1	1,2
Queenstown	QT 1/5	2,7
	QT 3/3	2,7
	QT 4/4	2,7
Rutland	RL/A	6
St James	SJ 2/28	2,7
	SJ 2/30	2,7
	SJ 76	10
St Margaret	SM 401	10
Tillicoultry	TC 10	2
Uva Highlands	UH 3/4	2,7
	UH 3/7	2,7
	UH 9/3	2,7
Vellai Oya	VO 33/3	2,7

TABLE 5—*Classification Group 5—Clones with poor manufacturing quality*

Origin	Clone	*References
St Coombs	TRI 9	1,2
	TRI 13	1
	TRI 18	1
	TRI 20	1,2
	TRI 22	1,2
	TRI 26	1
	TRI 105	1,2
	TRI 142	1,2
	TRI 223	1,2
	TRI 384	1,2
	TRI 396	1,2
	TRI 510	1,2
	TRI 740	1,2
	TRI 742	1,2
	TRI 789	1,2
	TRI 896	1,2
	TRI 946	1,2
	TRI 960	1,2
	TRI 997	1,2
	TRI 1054	1,2
	TRI 1114	1,2
	TRI 1118	1,2
	TRI 1128	1,2
	TRI 1387	1,2
	TRI 1544	1,2
	TRI 2026	1,2
	TRI 2043	1,2
	TRI 2046	1,2
	TRI 2104	1,2
	TRI 2135	1,7
Concordia	CC/CL 35	
Drayton	DT 150	1
Galatura	G 18	2
Kanapediwatte	KPW	1
Kenilworth	KEN 15/2	1,2
Moray	M 3	1
Ouvahkellie	OK 1	1,2
Passara	PA 22	2,7
Queenstown	QT 1/3	2,7

*References: 1—Keegel (1959); 2—Kehl (1963); 3—Keegel (1964); 4—Hutchinson (1964); 5—Visser (1960); 6—Keegel (1963); 7—Keegel (1962a); 8—Kirtisinghe (1968); 9—Kirtisinghe (1966); 10—Kirtisinghe (1965); 11—Keegel (1962b); 12—Keegel (1961)

References

HUTCHINSON, M. T. (1964). Further developments of control in meadow nematodes. *Tea Q.* **35,** 90-95.

KEEGEL, E. L. (1954). A note on the operation of the miniature roller. *Tea Q.* **25,** 66-67.

KEEGEL, E. L. (1959). Tea made from clones. *Tea Q.* **30,** 134-142.

KEEGEL, E. L. (1961). Report of the Technologist *Rep. Tea Res. Inst. Ceylon 1960,* 94-99.

KEEGEL, E. L. (1962a). Tea made from clones. *Tea Q.* **33,** 183-188.

KEEGEL, E. L. (1962b). Report of the Technologist. *Rep. Tea Res. Inst. Ceylon 1961,* 125-133.

KEEGEL, E. L. (1963). Report of the Technologist. *Rep. Tea Res. Inst. Ceylon 1962,* 131-145.

KEEGEL, E. L. (1964). Report of the Technologist. *Rep. Tea Res. Inst. Ceylon 1963,* 109-122.

KEHL, F. H. (1963). Selection, propagation and testing of clones. *Rep. Tea Res. Inst. Ceylon 1962,* 107-129.

KIRTISINGHE, D. (1965). Report of the Acting Technologist. *Rep. Tea Res. Inst. Ceylon 1964,* 108-111.

KIRTISINGHE, D. (1966). Report of the Technology Division. *Rep. Tea Res. Inst. Ceylon 1965,* 96-102.

KIRTISINGHE, D. (1968). Report of the Technology Division. *Rep. Tea Res. Inst. Ceylon 1967,* 112-126.

VISSER, T. (1960). Report of the Plant Physiologist. *Rep. Tea Res. Inst. Ceylon 1959,* 73-90.

(*Accepted for Publication—14th July 1968*)