

Group C

Pulses

As the third largest family of flowering plants, the Fabaceae or Leguminosae contains more than 20,000 species which serve as nutrient rich source of food around the world. They are a rich source of proteins, complex carbohydrates, vitamins and fibre. This group contains chick pea, different types of lentils, dry peas and beans.

SLFCT contains 10 commonly consumed pulses in Sri Lanka.



SLC001



SCIENTIFIC NAME: *Cicer arietinum*
 ENGLISH NAME: Bengal gram, dhal
 SINHALA NAME: කඩල පරිඡ්ඡා
 TAMIL NAME: கடலைப்பருப்பு

SLC002



SCIENTIFIC NAME: *Cicer arietinum*
 ENGLISH NAME: Bengal gram, whole
 SINHALA NAME: කොණ්ඩ කඩල
 TAMIL NAME: கொண்டல் கடலை

SLC003



SCIENTIFIC NAME: *Phaseolus mungo*
 ENGLISH NAME: Black gram, dhal
 SINHALA NAME: උණු පරිඡ්ඡා
 TAMIL NAME: உளுந்தු

SLC004



SCIENTIFIC NAME: *Vigna catjang*
 ENGLISH NAME: Cowpea, brown
 SINHALA NAME: කවුටි, දුඹුරු
 TAMIL NAME: கௌபி, மண்ணீரம்

SLC005



SCIENTIFIC NAME: *Vigna catjang*
 ENGLISH NAME: Cowpea, white
 SINHALA NAME: කවුටි, සුදු
 TAMIL NAME: கௌபி, வெள்ளை

SLC006



SCIENTIFIC NAME: *Vigna radiata*
 ENGLISH NAME: Green gram, dhal
 SINHALA NAME: මුං පරිඡ්ඡා
 TAMIL NAME: பயற்றம்பருப்பு

SLC007



SCIENTIFIC NAME: *Vigna radiata*
ENGLISH NAME: Green gram, whole
SINHALA NAME: මුං ඇට
TAMIL NAME: பாசிப்பயறு

SLC008



SCIENTIFIC NAME: *Dolichos biflorus*
ENGLISH NAME: Horse gram, whole
SINHALA NAME: කොල්ලු
TAMIL NAME: கொள்ளு

SLC009



SCIENTIFIC NAME: *Lens culinaris*
ENGLISH NAME: Lentil, dhal
SINHALA NAME: මයිසුර් පරිච්ඡු
TAMIL NAME: மைசூர்பருப்பு

SLC010



SCIENTIFIC NAME: *Pisum sativum*
ENGLISH NAME: Peas, green, dry
SINHALA NAME: ග්‍රීන් පීස්
TAMIL NAME: பச்சைப்பட்டாணி

Table 1. PROXIMATE PRINCIPLES AND DIETARY FIBRES

(All values are expressed per 100g edible portion)

Food code	Food Name	Energy		Moisture	Protein	Total Fat	Carbohyd -rate	Total Dietary Fibre	Soluble Dietary Fibre	Insoluble Dietary Fibre	Ash
		ENERC	ENERC								
		kcal	kJ		g	g	g	g	g	g	g
SLC001	Bengal gram, dhal (<i>Cicer arietinum</i>)	327	1370	9.43	20.12	5.32	47.88	15.13	2.20	12.92	2.12
SLC002	Bengal gram, whole (<i>Cicer arietinum</i>)	288	1205	8.22	18.68	5.01	39.69	25.73	3.45	22.27	2.67
SLC003	Black gram, dhal (<i>Phaseolus mungo</i>)	323	1355	9.18	22.43	1.69	51.61	11.91	4.26	7.65	3.19
SLC004	Cowpea, brown (<i>Vigna catjang</i>)	320	1341	9.33	20.24	1.08	54.96	11.46	2.80	8.66	2.93
SLC005	Cowpea, white (<i>Vigna catjang</i>)	320	1340	9.32	21.25	1.14	53.77	11.70	2.79	8.91	2.83
SLC006	Green gram, dhal (<i>Vigna radiata</i>)	326	1366	9.16	23.40	1.39	53.31	9.71	1.33	8.38	3.04
SLC007	Green gram, whole (<i>Vigna radiata</i>)	290	1217	10.11	21.97	0.93	46.57	17.28	2.22	15.06	3.15
SLC008	Horse gram, whole (<i>Dolichos biflorus</i>)	328	1374	9.52	21.27	0.64	57.35	7.89	1.69	6.20	3.34
SLC009	Lentil, dhal (<i>Lens culinaris</i>)	319	1335	10.42	23.09	0.77	53.08	10.49	1.45	9.04	2.15
SLC010	Peas, dry (<i>Pisum sativum</i>)	299	1255	9.94	19.18	1.85	49.44	17.30	2.57	14.73	2.30

Table 2. FAT SOLUBLE VITAMINS

(All values are expressed per 100g edible portion; NA indicates component not available from reference sources)

Food code	Food Name	Vitamin E (α-tocopherol equivalents - TE)												
		Vitamin A (Retinol Equivalents - RE)		Vitamin D (D2 - ergocalciferol)	Vitamin K (Vitamin K1)	Vitamin E	α - Tocopherols		γ - Tocopherols		δ - Tocopherols		δ - Tocotrienols	
		VITA μg	ERGCAL μg	VITK1 μg	VITE mg	TOCPHA mg	TOCPHB mg	TOCPHG mg	TOCPHD mg					
SLC001	Bengal gram, dhal (<i>Cicer arietinum</i>)	26.83	1.49	1.62	0.19	0.09	1.04	0.03	NA	NA	NA	NA	NA	
SLC002	Bengal gram, whole (<i>Cicer arietinum</i>)	27.00	2.00	1.94	1.65	1.53	1.23	0.08	NA	NA	NA	NA	NA	
SLC003	Black gram, dhal (<i>Phaseolus mungo</i>)	1.68	8.25	8.94	0.17	0.03	1.38	0.03	NA	NA	NA	NA	NA	
SLC004	Cowpea, brown (<i>Vigna catjang</i>)	0.96	0.93	1.80	0.73	0.35	3.51	2.80	NA	NA	NA	NA	NA	
SLC005	Cowpea, white (<i>Vigna catjang</i>)	1.36	0.93	1.70	0.65	0.32	3.06	2.70	NA	NA	NA	NA	NA	
SLC006	Green gram, dhal (<i>Vigna radiata</i>)	20.16	2.02	7.50	0.25	0.06	1.89	NA	NA	NA	NA	NA	NA	
SLC007	Green gram, whole (<i>Vigna radiata</i>)	19.50	3.61	11.90	0.36	0.16	1.98	NA	0.26	NA	NA	NA	NA	
SLC008	Horse gram, whole (<i>Dolichos biflorus</i>)	8.64	1.74	10.54	0.24	0.05	1.90	NA	NA	NA	NA	NA	NA	
SLC009	Lentil, dhal (<i>Lens culinaris</i>)	1.06	1.45	3.89	0.17	0.03	1.35	0.22	NA	NA	NA	NA	NA	
SLC010	Peas, dry (<i>Pisum sativum</i>)	11.91	15.00	13.20	0.30	0.08	2.20	NA	NA	NA	NA	NA	NA	

Table 3. WATER SOLUBLE VITAMINS

(All values are expressed per 100g edible portion; NA indicates component not available from reference sources)

Food code	Food Name	Thiamine (B1)	Riboflavin (B2)	Niacin (B3)	Pantothenic acid (B5)	Vitamin B6	Biotin (B7)	Total Folate (B9)	Total Ascorbic Acid
		THIA	RIBF	NIA	PANTAC	VITB6C	BIOT	FOLSUM	VITC
		mg	mg	mg	mg	mg	µg	µg	mg
SLC001	Bengal gram, dhal (<i>Cicer arietinum</i>)	0.35	0.16	1.91	1.40	0.20	0.83	180	NA
SLC002	Bengal gram, whole (<i>Cicer arietinum</i>)	0.39	0.25	2.11	2.25	0.37	1.02	231	NA
SLC003	Black gram, dhal (<i>Phaseolus mungo</i>)	0.20	0.09	1.72	3.30	0.18	0.89	87.86	NA
SLC004	Cowpea, brown (<i>Vigna catjang</i>)	0.50	0.11	1.68	1.61	0.27	4.19	273	NA
SLC005	Cowpea, white (<i>Vigna catjang</i>)	0.34	0.09	1.51	1.66	0.26	4.28	249	NA
SLC006	Green gram, dhal (<i>Vigna radiata</i>)	0.35	0.12	1.70	1.81	0.20	0.71	85.59	NA
SLC007	Green gram, whole (<i>Vigna radiata</i>)	0.42	0.28	2.21	2.06	0.33	1.31	135	NA
SLC008	Horse gram, whole (<i>Dolichos biflorus</i>)	0.32	0.21	1.92	1.62	0.22	0.57	172	NA
SLC009	Lentil, dhal (<i>Lens culinaris</i>)	0.32	0.16	1.80	1.33	0.22	1.12	55.00	NA
SLC010	Peas, dry (<i>Pisum sativum</i>)	0.55	0.16	2.74	1.26	0.29	0.55	116	NA

Table 4. MAJOR MINERALS

(All values are expressed per 100g edible portion)

Food code	Food Name	Calcium		Phosphorus		Magnesium		Sodium		Potassium	
		CA		P		MG		NA		K	
		mg		mg		mg		mg		mg	
SLC001	Bengal gram, dhal (<i>Cicer arietinum</i>)	50.78		311		108		20.79		919	
SLC002	Bengal gram, whole (<i>Cicer arietinum</i>)	166		262		165		26.45		903	
SLC003	Black gram, dhal (<i>Phaseolus mungo</i>)	46.58		326		174		21.59		1169	
SLC004	Cowpea, brown (<i>Vigna catjang</i>)	81.83		382		194		13.77		1235	
SLC005	Cowpea, white (<i>Vigna catjang</i>)	84.10		378		213		12.52		1243	
SLC006	Green gram, dhal (<i>Vigna radiata</i>)	38.87		380		147		10.28		1215	
SLC007	Green gram, whole (<i>Vigna radiata</i>)	98.96		338		146		12.47		1127	
SLC008	Horse gram, whole (<i>Dolichos biflorus</i>)	309		295		132		11.89		1045	
SLC009	Lentil, dhal (<i>Lens culinaris</i>)	41.27		308		66.63		10.24		798	
SLC010	Peas, dry (<i>Pisum sativum</i>)	75.93		336		118		23.51		886	

Table 5. TRACE ELEMENTS AND HEAVY METALS

(All values are expressed per 100g edible portion; NA indicates component not available from reference sources)

Food code	Food Name	Minerals																						
		Iron			Manganese		Copper		Zinc		Selenium		Cobalt		Molybdenum		Chromium		Lithium		Mercury		Antimony	
		FE	MN	CU	ZN	SE	CO	MO	CR	LI	HG	SB												
		mg	mg	mg	mg	µg	mg	mg	mg	µg	mg	mg	mg	mg	mg	mg	µg	µg						
SLC001	Bengal gram, dhal (<i>Cicer arietinum</i>)	5.94	1.43	0.71	3.65	39.01	0.017	0.014	0.020	0.004	1.85	NA												
SLC002	Bengal gram, whole (<i>Cicer arietinum</i>)	6.04	2.35	0.68	3.10	40.84	0.016	0.115	0.012	0.003	1.96	0.58												
SLC003	Black gram, dhal (<i>Phaseolus mungo</i>)	5.15	1.43	0.50	3.19	21.06	0.021	0.027	0.009	NA	1.68	NA												
SLC004	Cowpea, brown (<i>Vigna catjang</i>)	4.95	1.35	0.75	3.40	22.35	0.014	0.151	0.011	0.004	NA	NA												
SLC005	Cowpea, white (<i>Vigna catjang</i>)	5.04	1.35	0.68	3.57	26.55	0.017	0.226	0.004	0.007	NA	NA												
SLC006	Green gram, dhal (<i>Vigna radiata</i>)	3.88	0.97	0.85	2.62	38.69	0.005	0.043	0.001	NA	0.02	NA												
SLC007	Green gram, whole (<i>Vigna radiata</i>)	4.15	1.02	0.83	2.86	26.05	0.010	0.092	0.022	NA	0.02	NA												
SLC008	Horse gram, whole (<i>Dolichos biflorus</i>)	7.82	3.60	1.29	2.60	31.50	0.027	0.059	0.019	0.001	1.43	NA												
SLC009	Lentil, dhal (<i>Lens culinaris</i>)	7.45	1.37	0.80	3.34	69.26	0.008	0.047	0.003	0.001	0.11	NA												
SLC010	Peas, dry (<i>Pisum sativum</i>)	5.12	1.11	0.63	3.27	50.51	0.009	0.016	0.007	0.001	0.42	NA												

Table 6. AMINO ACIDS

(All values are expressed per 100g of protein)

Food code	Food Name	Tryptophan		Aspartic Acid		Threonine		Serine		Glutamic Acid		Proline		Glycine		Alanine		Cysteine		Valine		Methionine		Isoleucine		Leucine		Tyrosine		Phenylalanine		Histidine		Lysine		Arginine	
		TRP	ASP	THR	SER	GLU	PRO	GLY	ALA	CYS	VAL	MET	ILE	LEU	TYR	PHE	HIS	LYS	ARG																		
		g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	
SLC001	Bengal gram, dhal (<i>Cicer arietinum</i>)	1.12	11.20	3.17	3.75	16.30	3.66	3.51	4.30	0.90	4.24	1.42	4.52	7.60	3.08	7.95	2.46	6.42	7.97																		
SLC002	Bengal gram, whole (<i>Cicer arietinum</i>)	0.86	11.40	3.24	4.09	18.50	3.76	3.75	4.51	1.29	5.23	0.93	4.69	7.84	3.00	7.59	2.35	6.74	8.10																		
SLC003	Black gram, dhal (<i>Phaseolus mungo</i>)	1.16	11.10	3.13	5.02	17.50	3.89	3.31	4.54	0.44	5.81	1.85	4.72	8.57	3.27	7.29	2.75	6.47	6.02																		
SLC004	Cowpea, brown (<i>Vigna catjang</i>)	1.04	10.20	4.99	4.43	15.20	4.74	5.63	4.09	0.66	5.86	1.67	5.08	8.76	3.16	4.57	3.72	9.15	9.61																		
SLC005	Cowpea, white (<i>Vigna catjang</i>)	0.92	11.00	4.10	4.80	18.20	4.05	4.09	5.06	0.60	5.31	1.53	4.40	7.96	3.25	5.63	3.25	7.14	7.44																		
SLC006	Green gram, dhal (<i>Vigna radiata</i>)	1.43	11.30	3.21	4.48	18.60	3.98	3.65	4.45	0.50	5.83	1.42	4.78	8.21	3.00	6.47	2.76	7.06	6.71																		
SLC007	Green gram, whole (<i>Vigna radiata</i>)	1.17	10.40	3.30	5.08	17.40	4.03	3.68	4.78	0.71	5.48	1.20	4.14	7.93	2.86	5.56	2.67	6.52	6.61																		
SLC008	Horse gram, whole (<i>Dolichos biflorus</i>)	1.08	11.00	3.47	4.34	17.90	4.10	4.59	4.34	0.89	5.15	1.06	4.41	7.34	3.65	9.09	3.18	7.26	6.39																		
SLC009	Lentil, dhal (<i>Lens culinaris</i>)	0.84	11.60	3.36	4.48	18.20	3.72	3.78	4.55	0.60	5.48	0.86	4.59	7.59	3.08	6.44	1.84	5.65	7.94																		
SLC010	Peas, dry (<i>Pisum sativum</i>)	0.92	11.40	3.67	4.81	18.20	3.85	4.36	4.32	1.07	5.85	1.01	4.57	7.43	3.26	4.84	2.42	8.10	8.26																		

Table 7. FATTY ACIDS

(All values are expressed per 100g edible portion; (-) symbol in the table indicates below detectable limit)

Food code	Food Name	Saturated Fatty Acids					Mono Unsaturated Fatty Acids					Poly Unsaturated Fatty Acids		
		Total	Palmitic (C16:0)	Stearic (C18:0)	Arachidic (C20:0)	Behenic (C22:0)	Lignoceric (C24:0)	Total	Palmitoleic (C16:1)	Oleic (C18:1)	Eicosaenoic (C20:1)	Total	Linoleic (C18:2)	A-Linolenic (C18:3)
FASAT	F16D0	F18D0	F20D0	F22D0	F24D0	FAMS	F16D1C	F18D1C N9	F20D1N 9F	FAPU	F18D2C N6	F18D3N3		
		mg	mg	mg	mg	mg	mg	mg	mg	mg	mg	mg	mg	
SLC001	Bengal gram, dhal (<i>Cicer arietinum</i>)	481	416	53.04	12.46	-	-	884	9.34	863	11.91	2465	2354	112
SLC002	Bengal gram, whole (<i>Cicer arietinum</i>)	451	380	57.70	13.41	-	-	924	8.77	904	11.75	2232	2122	111
SLC003	Black gram, dhal (<i>Phaseolus mungo</i>)	284	227	57.20	-	-	-	185	-	185	-	748	175	573
SLC004	Cowpea, brown (<i>Vigna catjang</i>)	277	222	32.58	5.94	11.74	4.13	59.42	-	56.93	2.49	528	329	199
SLC005	Cowpea, white (<i>Vigna catjang</i>)	285	228	34.43	6.34	12.19	4.05	70.12	-	67.63	2.49	557	354	203
SLC006	Green gram, dhal (<i>Vigna radiata</i>)	244	212	32.75	-	-	-	42.48	-	42.48	-	570	400	170
SLC007	Green gram, whole (<i>Vigna radiata</i>)	260	224	35.64	-	-	-	21.69	-	21.69	-	633	446	187
SLC008	Horse gram, whole (<i>Dolichos biflorus</i>)	133	113	13.53	-	4.34	2.84	65.66	-	65.66	-	262	207	54.37
SLC009	Lentil, dhal (<i>Lens culinaris</i>)	93.06	82.26	10.80	-	-	-	115	-	115	-	346	274	71.69
SLC010	Peas, dry (<i>Pisum sativum</i>)	243	191	51.35	-	-	-	379	-	379	-	839	700	139

Table 8. STARCH AND SUGARS

(All values are expressed per 100g edible portion; NA indicates component not available from reference sources)

Food code	Food Name	Available CHO	Free sugars				Oligosaccharides				Total Starch		
			Total	Fructose	Glucose	Maltose	Sucrose	Raffinose	Stachyose	Verbascose		Ajugose	
			g	g	g	g	g	g	g	g	g	g	STARCH
SLC001	Bengal gram, dhal (<i>Cicer arietinum</i>)	40.97	0.71	0.11	0.12	0.18	0.30	0.22	0.46	NA	NA	NA	40.26
SLC002	Bengal gram, whole (<i>Cicer arietinum</i>)	34.77	0.75	0.10	0.08	0.12	0.45	0.20	0.46	NA	NA	NA	34.02
SLC003	Black gram, dhal (<i>Phaseolus mungo</i>)	50.55	1.04	0.24	0.18	NA	0.62	0.03	0.15	1.07	0.08	NA	49.51
SLC004	Cowpea, brown (<i>Vigna catjang</i>)	46.50	1.26	0.11	0.42	NA	0.73	0.12	1.17	0.01	NA	NA	45.24
SLC005	Cowpea, white (<i>Vigna catjang</i>)	47.51	1.18	0.13	0.39	NA	0.67	0.12	1.13	0.01	NA	NA	46.33
SLC006	Green gram, dhal (<i>Vigna radiata</i>)	42.29	1.25	0.08	0.28	NA	0.89	0.08	0.34	0.94	0.02	NA	41.04
SLC007	Green gram, whole (<i>Vigna radiata</i>)	45.61	0.63	0.08	0.17	NA	0.38	0.17	0.37	1.64	0.05	NA	44.98
SLC008	Horse gram, whole (<i>Dolichos biflorus</i>)	47.68	0.29	0.07	0.14	NA	0.08	0.03	1.59	NA	NA	NA	47.39
SLC009	Lentil, dhal (<i>Lens culinaris</i>)	45.95	2.01	0.86	0.30	NA	0.85	0.07	0.62	0.08	NA	NA	43.94
SLC010	Peas, dry (<i>Pisum sativum</i>)	47.85	2.31	0.59	0.83	NA	0.89	0.08	0.62	0.09	NA	NA	45.54

Table 9. PHYTOSTEROLS

(All values are expressed per 100g edible portion)

Food code	Food Name	Campesterol	Stigmasterol	β-Sitosterol
		mg	STGSTR	STGSTR
		mg	mg	mg
SLC001	Bengal gram, dhal (<i>Cicer arietinum</i>)	7.34	3.60	90.64
SLC002	Bengal gram, whole (<i>Cicer arietinum</i>)	6.86	6.15	85.37
SLC003	Black gram, dhal (<i>Phaseolus mungo</i>)	2.97	11.58	40.36
SLC004	Cowpea, brown (<i>Vigna catjang</i>)	6.67	33.89	60.72
SLC005	Cowpea, white (<i>Vigna catjang</i>)	6.86	32.64	65.43
SLC006	Green gram, dhal (<i>Vigna radiata</i>)	3.06	12.49	53.22
SLC007	Green gram, whole (<i>Vigna radiata</i>)	2.95	11.65	51.71
SLC008	Horse gram, whole (<i>Dolichos biflorus</i>)	3.84	11.75	49.22
SLC009	Lentil, dhal (<i>Lens culinaris</i>)	5.75	3.22	70.45
SLC010	Peas, dry (<i>Pisum sativum</i>)	6.16	2.88	81.49

Table 10. CAROTENES AND XANTHOPHYLS

(All values are expressed per 100g edible portion; NA indicates component not available from reference sources)

Food code	Food Name	Lutein		Zeaxanthin		β - Carotene	
		LUTN		ZEAX		CARTB	
		μg		μg		μg	
SLC001	Bengal gram, dhal (<i>Cicer arietinum</i>)	240		1.33		161	
SLC002	Bengal gram, whole (<i>Cicer arietinum</i>)	354		16.31		162	
SLC003	Black gram, dhal (<i>Phaseolus mungo</i>)	56.74		NA		10.12	
SLC004	Cowpea, brown (<i>Vigna catjang</i>)	97.32		NA		5.76	
SLC005	Cowpea, white (<i>Vigna catjang</i>)	78.52		NA		8.21	
SLC006	Green gram, dhal (<i>Vigna radiata</i>)	135		2.37		121	
SLC007	Green gram, whole (<i>Vigna radiata</i>)	165		6.58		117	
SLC008	Horse gram, whole (<i>Dolichos biflorus</i>)	73.45		2.52		51.85	
SLC009	Lentil, dhal (<i>Lens culinaris</i>)	10.87		NA		6.41	
SLC010	Peas, dry (<i>Pisum sativum</i>)	429		31.45		71.46	

