

Supplementary Table S1. Accession Identification, origin, latitude, longitude (collection place) and pollination type of 55 *C. chinense* accessions from *Universidade Estadual do Norte Fluminense Darcy Ribeiro* germplasm bank.

Accession ID	Origin	Lat/Long	Biome	Accession ID	Origin	Lat/Lon	Biome
UENF 1707	São Luiz, MA	02°31'/44°18'	Cerrado	UENF 2086	Cáceres, MT	16°04'/57°40'	Amazon
UENF 1708	São Luiz, MA	02°31'/44°18'	Cerrado	UENF 2087	Cáceres, MT	16°04'/57°40'	Amazon
UENF 1720	Ilhéus, BA	14°47'/39°02'	Atlantic Forest	UENF 2091	Cáceres, MT	16°04'/57°40'	Amazon
UENF 1721	Ilhéus, BA	14°47'/39°02'	Atlantic Forest	UENF 2093	Cáceres, MT	16°04'/57°40'	Amazon
UENF 1722	Ilhéus, BA	14°47'/39°02'	Atlantic Forest	UENF 2097	Cáceres, MT	16°04'/57°40'	Amazon
UENF 1726	Ilhéus, BA	14°47'/39°02'	Atlantic Forest	UENF 2100	Cáceres, MT	16°04'/57°40'	Amazon
UENF 1730	Peru	-	Amazon biome	UENF 2101	Cáceres, MT	16°04'/57°40'	Amazon
UENF 1736	São Domingos, ES	19°08'/40°37'	Atlantic Forest	UENF 2106	Cáceres, MT	16°04'/57°40'	Amazon
UENF 1764	Belém, PA	01°27'/48°30'	Amazon biome	UENF 2110	Cáceres, MT	16°04'/57°40'	Pantanal
UENF 1765	Belém, PA	01°27'/48°30'	Amazon biome	UENF 2111	Cáceres, MT	16°04'/57°40'	Cerrado
UENF 1768	Belém, PA	01°27'/48°30'	Amazon biome	UENF 2112	Cáceres, MT	16°04'/57°40'	Cerrado
UENF 1770	Belém, PA	01°27'/48°30'	Amazon biome	UENF 2113	Cáceres, MT	16°04'/57°40'	Cerrado
UENF 1787	São Luiz, MA	02°31'/44°18'	Cerrado	UENF 2115	Cáceres, MT	16°04'/57°40'	Cerrado
UENF 1788	São Luiz, MA	02°31'/44°18'	Cerrado	UENF 2116	Cáceres, MT	16°04'/57°40'	Cerrado
UENF 1791	São Luiz, MA	02°31'/44°18'	Cerrado	UENF 2118	Cáceres, MT	16°04'/57°40'	Cerrado
UENF 2036	Campos, RJ	21°45'/41°19'	Atlantic Forest	UENF 2123	Cáceres, MT	16°04'/57°40'	Cerrado
UENF 2044	Campos, RJ	21°45'/41°19'	Atlantic Forest	UENF 2129	Cáceres, MT	16°04'/57°40'	Cerrado
UENF 2051	Campos, RJ	21°45'/41°19'	Atlantic Forest	UENF 2130	Cáceres, MT	16°04'/57°40'	Cerrado
UENF 2066	Campos, RJ	21°45'/41°19'	Atlantic Forest	UENF 2131	Cáceres, MT	16°04'/57°40'	Cerrado

UENF 2073	Rio das Ostras, RJ	22°31'/41°56'	Atlantic Forest	UENF 2133	Cáceres, MT	16°04'/57°40'	Cerrado
UENF 2074	Rio das Ostras, RJ	22°31'/41°56'	Atlantic Forest	UENF 2134	Cáceres, MT	16°04'/57°40'	Cerrado
UENF 2075	Rio das Ostras, RJ	22°31'/41°56'	Atlantic Forest	UENF 2135	Cáceres, MT	16°04'/57°40'	Cerrado
UENF 2083	Cáceres, MT	16°04'/57°40'	Amazon	UENF 2154	Cáceres, MT	16°04'/57°40'	Cerrado
UENF 2085	Cáceres, MT	16°04'/57°40'	Amazon				

All Accession are open-pollinated; Lat=Latitude/Long=longitude

Supplementary Table S2. Descriptors used to characterize quantitative traits in 55 *C. chinense* accessions (54 from four different geographic Brazilian regions + one Peruvian) according to IPGRI (1995).

Descriptor	Evaluation criteria
PH - Plant height (cm)	Measured from the soil surface to the highest point of the plant when 50% of the plants present mature fruits
CD - Canopy diameter (cm)	Measured after the first harvest between the broadest points of the crown
SD - Stem diameter (cm)	Measured in the middle part of the first bifurcation
DG - Days for germination (days)	Number of days from sowing to 50% of the plants have germinated
DFL - Days for flowering (days)	Number of days from germination to 50% of the plants have at least one open flower
DFR - Days for fruiting (days)	Number of days from germination to 50% of the plants have mature fruits in the first and second bifurcation;
DM - Days for maturation (days)	Number of days after germination until 50% are mature fruit;
FL - Fruit length (mm)	Measured in the longitudinal region of five mature fruits
FD - Fruit diameter (mm)	Measured in the equatorial region of five mature fruits
FW - Fruit weight (g)	Measured in five mature fruits
CLL - Cotyledon leaf length (mm)	Measured when fully developed
CLD - Cotyledon leaf diameter (mm)	Measured when fully developed
LL - Leaf length (cm)	Measured on five fully developed leaves
LW - Leaf width (cm)	Measured on five fully developed leaves
PL - Peduncle length (mm)	Measured in five mature fruits
PT - Pericarp thickness (mm)	Measured of the highest fruit pulp thickness after a cross-section in five mature fruits

Supplementary Table S3. Descriptors for qualitative traits and phenotypes used to characterize 55 *C. chinense* accessions (54 from four different geographic Brazilian regions + one Peruvian) according to IPGRI (1995).

Descriptor	Phenotypes
HC - Hypocotyl Color	1 = White; 2 = Green; 3 = Purple;
CLC - Cotyledon leaf color	1 = Light green; 2 = Green; 3 = Dark green; 4 = Light purple; 5 = Purple; 6 = Dark purple; 7 = Variegated; 8 = Yellow 9 = Other;
CLS - Cotyledon leaf shape	1 = Deltoid; 2 = Ovate; 3 = Lanceolate; 4 = Elong-deltoid;
ACN - Anthocyanin color of the node	1 = Green; 3 = Light purple; 5 = Purple; 7 = Dark purple;
SC - stem color	1 = Green; 2 = Green with pink stripes; 3 = Purple; 4 = Other;
SS- stem shape	1 = Cylindrical; 2 = Angled; 3 = Flattened;
SP - stem pubescence	3 = Sparse; 5 = Intermediate; 7 = Dense;
LC - Leaf color	1 = Yellow; 2 = Light green; 3 = Green; 4 = Dark green; 5 = Light purple; 6 = Purple; 7 = Variegated; 8 = Other;
LS - Leaf shape	1 = Deltoide; 2 = Ovate; 3 = Lanceolate;
CC - Corolla color	1 = White; 2 = Light yellow; 3 = Yellow; 4 = Yellow-Green; 5 = Purple with white base; 6 = White with purple base; 7 = White with purple margin; 8 = Purple; 9 = Other;
CS - corolla shape	1 = Rotate; 2 = Campanulate; 3 = Other;
AC - Anther color	1 = White; 2 = Yellow; 3 = Light blue; 4 = Blue; 5 = Purple; 6 = other;
NFA - Number of flowers per axilla	1 = one; 2 = two; 3 = three or more; 4 = many with short training; 5 = one and two; 6 = one, two and three; 7 = two and three and 8 = two, three and four;
FP - Flower position	3 = Pendant; 5 = Intermediate; 7 = Erect;
PGH - Plant growth habit	3 = Prostrate; 5 = Intermediate (compact); 7 = Erect; 9 = Other;
FCIS - Fruit color at intermediate stage	1 = White; 2 = Yellow; 3 = Green; 4 = Orange; 5 = Purple; 6 = Deep purple; 7 = Other;
FCMS - Fruit color at mature stage	1 = White; 2 = Lemon-yellow; 3 = Light orange yellow; 4 = Orange-yellow; 5 = Light orange; 6 = Orange; 7 = Light red; 8 = Red; 9 = Dark red; 10 = Purple; 11 = Brown; 12 = Black; 13 = Other
FS - Fruit shape	1 = Elongate; 2 = Almost Round; 3 = Triangular; 4 = Campanulate; 5 = Block; 6 = Other
FS - Fruit surface	1 = Smooth; 2 = Semiwrinkled; 3 = Wrinkled;
NL - Number of locules	1 = One; 2 = Two; 3 = Three; 4 = Four;
NBF - Neck at the base of the fruit	0 = Absent; 1 = Present;
CPS - Capsaicin	0 = Absent; 1 = Present;

Supplementary Table S4. ISSR primers sequences used for genotyping 55 *C. chinense* accessions (54 from four different geographic Brazilian regions + one Peruvian).

Primer	Sequence (5'-3')	Annealing temperature
4	(GTG) ₃ GC	52 °C
5	(AG) ₈ YT	50 °C
6	(AC) ₈ CG	48 °C
7	(AC) ₈ CT	48 °C
9	(TG) ₈ GG	52 °C
11	(GGAT) ₃ GA	48 °C
12	(GAA) ₆ AA	52 °C
17	(AC) ₈ T	50 °C
19	(AG) ₈ YA	48 °C
20	(GA) ₈ YT	52 °C
23	(CA) ₈ CYG	52 °C
25	(ATG) ₆	52 °C
41	(TC) ₈ AGG	50 °C
50	(AC) ₈ C	52 °C
51	(ATC) ₆ T	50 °C
57	(GA) ₉ T	50 °C
75	(AC) ₈ G	50 °C
81	(GA) ₈ YG	48 °C

Supplementary Table S5. Microsatellite (SSR) primers sequences used for genotyping 55 *C. chinense* accessions (54 from four different geographic Brazilian regions + one Peruvian).

Primer	Forward (5'-3' orientation)	Reverse (5'-3' orientation)	Annealing temperature
TES-402	gccgaatctacaaagaggagca	atcaccaacaaaacggaagac	60 °C
CAMS-888	cctcggagtggtttgtgat	gcttggtcacgccaccttat	60 °C
CM-005	catgaccacatgaggata	gatagccacgagcatagtatt	59 °C
344	tggtgctcgaactctccaaa	cataggagaggttaaccgca	63 °C
CAN-130829	gctaattacttgctccgttttg	aatgggggagttgttttgg	60 °C
GP-1102	gaacccttcattcctgtatgt	ttgcccgcattatgtaaate	59 °C
CA-505155	taatcgagcggtagattcgg	taagtggaggtgcccttctg	63 °C
CB-164897	gggacgtatttcgaagagg	cttcgcttggtgactaggg	63 °C
CACCFL1i	ctctaataaggcaatagctgacatgc	gcagtctcccagaacgtgtcc	63 °C
CM-0008	atagctcacatgccctataaa	aatcttgagcaataattggac	59 °C
CM-0006	agttaacaacttgggtgctgt	taatatggtaagcacattcca	56 °C
CM-0010	ttggttttgctactggtaat	aaactgtcatatattgtgtgact	56 °C
CAMS-089	aacagcgtgatcctttacc	caacatcacagtggcagaaga	66 °C
CAMS-051	accagttccctttcttgggt	gaaggttagcggatgaacg	60 °C

CAMS-081	gtgggggagagtgggtat	tgggtgaacactagcatg	63 °C
CAMS-191	cccgaatccaagtcattgag	taaaccggttcccttct	63 °C
CAMS-095	cgctagcatgacactcaagg	aacggcaaggctacacatc	63 °C

Supplementary Table S6. Clustering of 16 quantitative traits means of 55 *Capsicum chinense* accessions by Scott-Knott method at 5% probability.

Genotype	DG	PH	CD	SD	DFL	DFR	DM	FL	FD	FW	CLL	CLD	LL	LW	PL	PT
UENF 1707	9c	126.13c	111.00b	1.60b	92.20b	117.40a	161.40d	11.57h	12.64e	3.40h	12.81g	6.21d	7.93b	3.82e	22.18f	2.06c
UENF 1708	9c	86.90e	68.33c	1.99a	83.33b	87.66d	147.33e	24.87f	13.19e	2.60i	18.67c	6.06d	7.76b	3.86e	24.83e	1.86d
UENF 1720	9d	75.16e	73.46c	1.72b	66.40d	80.80e	138.20f	27.23f	21.83c	5.48g	17.25d	6.72d	7.28c	3.38e	30.84c	2.64a
UENF 1721	11a	109.32d	74.92c	1.77b	90.00b	115.25a	168.00d	41.82d	15.57d	5.45g	17.35d	6.96c	7.37c	3.62e	32.30b	2.31b
UENF 1722	9d	110.22d	104.46b	2.08a	76.60c	91.40d	167.40d	29.49f	23.10c	6.96f	18.62c	6.94c	7.78b	3.98d	27.68d	2.71a
UENF 1726	11a	110.33d	78.65c	1.56b	89.00b	105.00b	188.60c	44.12d	17.93d	8.20f	15.72e	7.57b	7.64c	3.90d	29.93c	2.34b
UENF 1730	7f	108.65d	63.36d	1.27d	81.00b	95.80c	150.40e	81.45a	24.51c	12.08d	25.96a	7.99a	9.42a	4.98b	43.69a	2.28c
UENF 1736	9d	71.47f	73.35c	1.45c	92.50b	110.50b	192.25c	31.71e	28.00b	18.15a	16.17e	7.22c	8.17b	3.75e	29.97c	2.83a
UENF 1753	9d	140.43b	103.32b	1.84b	86.50b	94.50c	183.50c	45.36d	21.97c	11.50d	18.15c	7.23c	7.55c	3.73	24.06e	2.64a
UENF 1764	9d	120.78c	81.76b	1.49c	82.80b	96.80c	201.60b	44.45d	15.14e	4.24h	19.33b	7.02c	7.24c	3.70e	27.42d	1.83d
UENF 1765	10b	82.46e	73.12c	1.68b	63.20d	72.20f	135.20f	17.20g	19.07d	7.56f	15.76e	7.01c	7.16e	3.54e	25.18e	2.28c
UENF 1768	9d	85.76e	74.82c	1.38c	71.40c	82.80e	139.20f	44.90d	26.10b	18.44a	15.42e	5.98e	7.72b	4.00d	26.01e	3.08a
UENF 1770	9d	111.30d	98.04b	1.42c	85.60b	98.40c	139.80f	46.82d	27.91b	10.68e	16.95d	6.44d	7.48c	3.88e	26.98d	3.00a
UENF 1787	11a	155.77a	123.12a	1.42c	74.75c	122.00a	217.25a	18.44g	15.87d	11.45d	16.72d	6.31d	7.00c	3.67e	24.51e	1.99c
UENF 1788	10b	85.75e	76.90c	1.29c	93.50b	107.00b	200.00b	31.80e	26.08b	7.25f	14.90e	7.16c	7.97b	3.57e	33.26b	2.72a
UENF 1791	10b	108.44d	74.86c	1.44c	70.40d	80.20e	162.00d	17.08g	12.99e	7.68f	14.16f	5.81e	7.96b	3.80e	23.47f	2.09c
UENF 2036	8e	113.10d	73.08c	1.46c	84.20b	88.00d	154.60d	45.17d	24.51c	9.84e	19.73b	6.90c	9.51a	5.94a	34.32b	2.95a
UENF 2044	7f	86.00e	66.44d	1.18d	76.20c	95.80c	153.20e	31.40e	16.92d	4.68h	17.11d	6.60d	7.15c	3.96d	19.00g	2.43b
UENF 2051	7f	85.68e	57.86d	1.18d	75.60c	100.80c	157.80d	27.74f	30.75a	7.96f	17.04d	8.45a	6.89c	4.44c	24.78e	2.60a
UENF 2066	8e	103.16d	57.80d	1.39c	79.40c	100.60c	161.60d	30.52e	33.18a	8.73f	13.78f	6.76d	7.33c	4.46c	27.05d	2.73a
UENF 2073	8e	49.82g	44.18d	0.96d	70.40d	99.00c	163.20d	24.02f	26.87b	6.13g	16.26e	6.95c	7.02c	4.10d	23.29f	2.12c

DG - Days for germination (days); PH - Plant height (cm); CD - Canopy diameter (cm); SD - Stem diameter (cm); DFL - Days for flowering (days); DFR - Days for fruiting (days); DM - Days for maturation (days); FL- Fruit length (mm); FD - Fruit diameter (mm); FW - Fruit weight (g); CLL - Cotyledon leaf length (mm); CLD - Cotyledon leaf diameter (mm); LL - Leaf length (cm); LW - Leaf width (cm); PL - Peduncle length (mm); PT - Pericarp thickness (mm).

Supplementary Table S6. Continued.

Genotype	DG	PH	CD	SD	DFL	DFR	DM	FL	FD	FW	CLL	CLD	LL	LW	PL	PT
UENF 2074	7f	69.01f	55.92d	1.43c	74.80c	96.80c	150.20e	35.51e	23.72c	7.38f	19.04c	8.20a	6.90c	4.24d	24.39e	2.21c
UENF 2075	8e	83.54e	80.28c	1.43c	73.40c	103.00c	157.00d	7.85h	9.71e	1.04i	14.62e	6.73d	6.80c	3.57e	14.49h	1.51d
UENF 2078	8e	70.98f	65.44d	1.20d	71.20c	97.80c	158.40c	75.49b	21.69c	5.53g	18.89c	7.30b	8.07b	4.44c	24.27e	2.40b
UENF 2079	11a	66.42f	58.00d	1.00d	67.50d	92.25d	153.25e	44.46d	13.34e	3.40h	12.80g	6.08d	6.87c	3.97d	22.22f	1.89d
UENF 2082	8e	72.54f	52.20d	1.20d	66.80d	101.20c	162.00d	27.01f	19.05d	4.29h	16.99d	6.69d	7.95b	4.36c	23.45f	2.34b
UENF 2083	7f	54.5g	50.43d	1.16d	79.00c	88.60d	147.60e	50.27d	21.74c	7.30f	17.56d	6.91	7.37c	4.11d	24.05e	2.31b
UENF 2085	8e	71.02f	58.72d	1.12d	75.60c	92.60d	159.80d	61.17c	19.75d	8.41f	17.12d	7.48b	7.47c	4.06d	26.77d	2.64a
UENF 2086	7f	79.00e	52.76d	1.30c	72.33c	107.66b	162.66d	37.15e	18.13d	5.72g	15.23e	8.03a	7.87b	4.79c	31.38c	1.95c
UENF 2087	7f	73.32f	59.64d	1.24d	70.40d	90.20d	159.20d	15.88g	15.02e	2.62i	18.07c	7.26c	7.57c	3.77e	19.04g	1.74d
UENF 2091	7f	76.56e	66.06c	1.28d	68.33d	86.33d	156.00d	16.99g	13.77e	1.79i	15.73e	7.43b	7.53c	4.34c	23.75e	1.86d
UENF 2093	9d	64.95f	54.87d	1.02d	63.75d	77.75e	136.75f	42.73d	13.22e	2.71i	18.02c	6.91c	6.54c	3.85c	21.20f	1.96c
UENF 2097	9d	66.40f	67.26c	1.27d	65.66d	86.00d	138.00f	59.64c	34.44a	18.61a	17.57d	6.21d	8.16b	4.56c	25.81e	2.72a
UENF 2100	7f	84.12e	81.07c	1.11d	72.50c	90.75d	150.50e	29.98f	18.99d	3.50h	18.76c	6.25d	7.84b	4.27d	23.46f	2.52b
UENF 2101	10b	65.07f	71.22c	1.11d	67.00d	84.75e	143.50f	44.6d	16.80d	5.47g	16.17e	5.25e	7.08c	3.60e	24.14e	2.68a
UENF 2106	6g	71.22f	63.86d	1.22d	72.60c	94.60c	153.00e	23.07g	20.50d	4.87h	15.53e	6.22d	7.39c	4.20d	23.09f	2.18c
UENF 2107	6g	58.62g	63.5d	1.13d	73.20c	88.40d	151.00e	22.18g	33.47a	9.64e	13.75f	5.68e	7.57c	4.45c	22.98f	2.56b
UENF 2110	5h	59.16g	61.3d	1.50c	68.00d	82.80e	150.80e	25.99f	32.34a	11.17d	18.93c	7.87a	8.83a	5.10b	19.99g	2.58a
UENF 2111	10b	50.54g	64.32d	1.10d	76.80c	94.40c	159.60d	13.09h	8.99e	1.11i	10.10h	5.38e	7.59c	5.23b	16.62h	1.38d
UENF 2112	9d	79.58e	75.64c	1.33c	67.00d	83.80e	154.00d	56.67c	32.57a	16.44b	20.20b	6.31d	8.51b	4.73c	24.70e	2.64a
UENF 2113	10b	99.5d	78.35c	1.42c	74.00c	90.75d	152.75e	22.20g	15.95d	2.47i	16.21e	7.36b	7.67c	4.13d	19.78g	1.84d

DG - Days for germination (days); PH - Plant height (cm); CD - Canopy diameter (cm); SD - Stem diameter (cm); DFL - Days for flowering (days); DFR - Days for fruiting (days); DM - Days for maturation (days); FL- Fruit length (mm); FD - Fruit diameter (mm); FW - Fruit weight (g); CLL - Cotyledon leaf length (mm); CLD - Cotyledon leaf diameter (mm); LL - Leaf length (cm); LW - Leaf width (cm); PL - Peduncle length (mm); PT - Pericarp thickness (mm).

Supplementary Table S6. Continued.

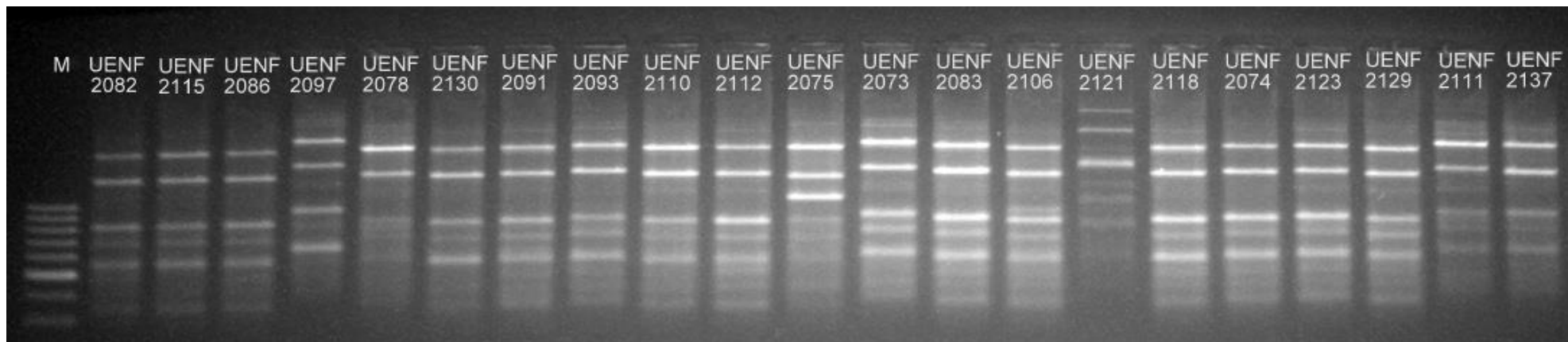
Genotype	DG	PH	CD	SD	DFL	DFR	DM	FL	FD	FW	CLL	CLD	LL	LW	PL	PT
UENF 2115	8e	82.92e	76.64c	1.30c	65.40d	91.80d	160.40d	21.26g	17.17d	3.65h	17.05d	7.15c	6.54c	3.79e	14.99h	1.91d
UENF 2116	8e	70.28f	53.42d	1.33c	73.00c	93.20d	162.20d	34.56e	27.00b	7.68f	18.29c	8.13a	6.81c	4.12d	25.93e	2.61a
UENF 2118	9d	110.68d	76.38c	1.24d	66.00d	82.80e	152.00e	35.53e	23.06c	4.03h	16.81d	7.56b	7.33c	4.67c	23.96e	1.96c
UENF 2123	10b	72.63f	68.73c	1.26d	79.33c	92.66d	162.66d	84.93a	23.52c	14.48c	17.20d	7.20c	8.96a	5.15b	28.51d	2.74a
UENF 2129	5h	86.22e	69.20c	1.40c	79.20c	94.40 c	158.20d	27.49f	32.55a	8.24f	18.00c	7.62b	7.31c	4.41c	22.73f	2.81a
UENF 2130	9d	83.35e	72.07c	1.26d	70.75d	85.25e	150.50e	32.62e	22.34c	4.75h	16.58d	7.64b	7.44c	3.92d	16.54h	2.46b
UENF 2131	9d	52.80g	61.05d	1.21d	75.25c	90.75d	152.00e	55.34c	27.58b	10.05e	17.70d	7.63b	8.10b	4.83c	26.40e	2.00c
UENF 2133	8e	81.34e	72.76c	1.31c	66.20d	82.40e	153.80d	26.13f	17.67d	3.21h	15.62e	7.49b	6.95c	4.05d	19.84g	2.18c
UENF 2134	9d	79.32e	76.57c	1.29c	67.75d	79.75e	145.75e	20.69g	11.56e	2.17i	16.66d	6.5d	7.02c	4.24d	18.01g	1.63d
UENF 2135	6g	57.46g	68.50c	1.31c	73.00c	93.6d	161.20d	35.94e	29.35a	9.77e	17.51d	7.47b	7.27c	4.35c	21.20f	2.46b
UENF 2137	8e	70.86f	55.28d	1.23d	75.40c	95.6c	157.80d	11.39h	15.59d	1.90i	15.97e	6.24d	7.87b	4.26d	22.62f	2.06c
UENF 2140	7f	113.68d	69.80c	1.30c	73.40c	91.00d	151.00e	41.30d	18.18d	5.38g	16.15e	7.21c	6.70c	3.55e	24.15e	2.24c
UENF 2153	8e	93.80e	67.46c	1.43c	65.00d	90.33d	149.66e	27.47f	13.34e	2.62i	16.79d	7.06c	8.25b	4.60c	19.91g	2.32b
UENF 2154	5h	66.56f	61.82d	1.47c	78.40c	95.00c	161.00d	25.25f	21.15d	4.84h	15.42e	8.07a	7.78b	4.32c	22.46f	2.85a

DG - Days for germination (days); PH - Plant height (cm); CD - Canopy diameter (cm); SD - Stem diameter (cm); DFL - Days for flowering (days); DFR - Days for fruiting (days); DM - Days for maturation (days); FL- Fruit length (mm); FD - Fruit diameter (mm); FW - Fruit weight (g); CLL - Cotyledon leaf length (mm); CLD - Cotyledon leaf diameter (mm); LL - Leaf length (cm); LW - Leaf width (cm); PL - Peduncle length (mm); PT - Pericarp thickness (mm).

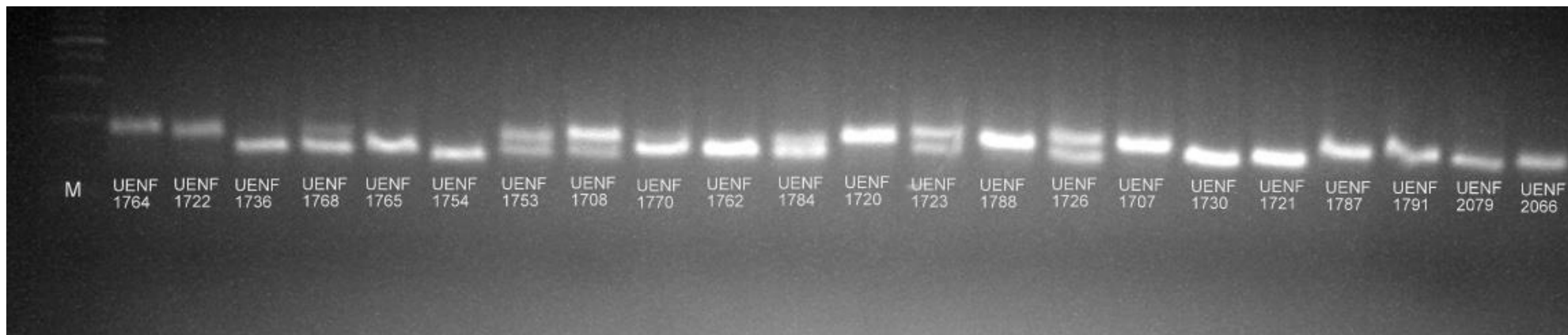
Supplementary Table S7. Correlations between the independent variables obtained by Pearson's correlation coefficient considering 16 descriptors used to characterize 55 *C. chinense* accessions (54 from four different geographic Brazilian regions + one Peruvian).

	PH	CD	SD	LL	LW	FL	FD	FW	PL	PT	CLL	CLD	DG	DFL	DFR	DM
PH	1	0.75	0.52	0.076	-0.21	-0.018	-0.17	0.08	0.29	0.045	0.14	-0.019	0.35	0.43	0.26	0.43
CD		1	0.57	0.031	-0.31	-0.14	-0.17	0.11	0.03	0.049	-0.043	-0.25	0.41	0.41	0.14	0.37
SD			1	0.14	-0.25	-0.16	-0.034	0.109	0.23	0.18	0.14	0.077	0.21	0.34	0.018	0.17
LL				1	0.64	0.39	0.26	0.43	0.51	0.32	0.38	0.003	-0.059	0.25	-0.034	0.014
LW					1	0.29	0.33	0.2	0.17	0.11	0.21	0.13	-0.3	-0.07	-0.09	-0.18
FL						1	0.33	0.49	0.55	0.36	0.55	0.23	0.065	0.026	0.016	-0.069
FD							1	0.69	0.32	0.71	0.304	0.29	-0.39	-0.015	0.009	-0.079
FW								1	0.48	0.66	0.29	0.035	0.047	0.11	0.07	0.088
PL									1	0.43	0.47	0.19	0.15	0.34	0.23	0.18
PT										1	0.24	0.12	-0.204	0.15	-0.005	-0.075
CLL											1	0.45	-0.24	-0.096	-0.047	-0.049
CLD												1	-0.38	0.007	0.15	0.11
DG													1	0.15	0.085	0.25
DFL														1	0.46	0.44
DFR															1	0.7
DM																1

PH - Plant height (cm); CD - Canopy diameter (cm); SD - Stem diameter (cm); LL - Leaf length (cm); LW - Leaf width (cm); FL - Fruit length (mm); FD - Fruit diameter (mm); FW - Fruit weight (g); PL - Peduncle length (mm); PT - Pericarp thickness (mm); CLL - Cotyledon leaf length (mm); CLD - Cotyledon leaf diameter (mm); DG - Days for germination (days); DFL - Days for flowering (days); DFR - Days for fruiting (days); DM - Days for maturation (days).



Supplementary Figure S1. Representative sample of 2% agarose gel. DNA amplified fragments using ISSR marker 23. M – 100 bp DNA Ladder.



Supplementary Figure S2. Representative sample of 4% Metaphor gel. DNA amplified fragments using the microsatellite loci CB-164897.