

Supplementary table. Morphological characters and growth habit for individuals in Tottori populations (Header, ID; code for individual, PH; Plant height, SD; Stem diameter, SW; 100 seed weight. In the list, -; data not available, bm; black mottled seed coat, dk; dark gray pod).

Location	ID	Growth	Growth stage	Stem color	PH (cm)	SD (mm)	SW (g)	Seed color	Pod color	Pod shattering	Other characteristics
Ketaka	(AV)	erect-twining	early vegetative-flowering	purple	49.8	2.0					
CED2k2001	1	semi-erect	early vegetative	purple	30	1.1	-	-	-	-	
	2	twining	vegetative	purple	70	1.6	-	-	-	-	
	3	semi-erect	early vegetative	purple	33	1.2	-	-	-	-	
	4	semi-erect	early vegetative	purple	45	1.8	-	-	-	-	
	5	semi-erect	early vegetative	purple	50	1.5	-	-	-	-	
	6	twining	flowering	purple	100	2.5	-	-	-	-	
	7	twining	flowering	purple	100	2.3	-	-	-	-	
	8	erect	early vegetative	purple	10	2.0	-	-	-	-	
	9	erect	early vegetative	purple	10	1.8	-	-	-	-	
	10	erect	early vegetative	purple	10	0.9	-	-	-	-	
	11	twining	flowering	purple	70	4.6	-	-	-	-	
	12	twining	flowering	purple	70	3.2	-	-	-	-	
Ketaka	(AV)	twining	flowering	purple	115.0	2.6					
CED2k2002	bulk	-	-	-	-	-	3.5	bm	dk	shattering	
	1	twining	flowering	purple	90	2.8	-	-	-	-	
	2	semi-erect	early vegetative	purple	30	1.7	2.2	bm	dk	shattering	
	3	twining	flowering	purple	100	1.5	2.3	bm	dk	shattering	
	4	twining	flowering	purple	130	1.7	-	-	-	-	
	5	twining	flowering	purple	200	2.8	-	-	-	-	
	6	twining	flowering	purple	140	4.9	-	-	-	-	
Ketaka	(AV)	twining	flowering	purple	119.4	2.2	2.5	bm	dk	shattering	
CED2k2003	1	twining	maturing	purple	120	1.5	2.5	bm	dk	shattering	
	2	twining	flowering	purple	85	2.3	2.9	bm	dk	shattering	
	3	twining	flowering	purple	100	1.7	2.1	bm	dk	shattering	
	4	twining	flowering	purple	120	1.1	-	-	-	-	
	5	twining	flowering	purple	160	3.8	2.0	bm	dk	shattering	
	6	twining	vegetative	purple	90	2.5	3.2	bm	dk	shattering	
	7	twining	flowering	purple	120	1.1	2.5	bm	dk	shattering	
	8	twining	flowering	purple	160	3.9	2.7	bm	dk	shattering	
Ketaka	(AV)	twining	flowering	purple	168.6	2.8	2.4	bm	dk	shattering	
CED2k2004	1	twining	flowering	purple	170	2.1	2.2	bm	dk	shattering	
	2	twining	early vegetative	purple	50	2.0	1.8	bm	dk	shattering	
	3	twining	flowering	purple	190	2.8	1.9	bm	dk	shattering	
	4	twining	flowering	purple	170	2.3	3.5	bm	dk	shattering	
	5	twining	flowering	purple	190	3.0	2.7	bm	dk	shattering	
	6	twining	flowering	purple	190	3.3	2.4	bm	dk	shattering	
	7	twining	flowering	purple	220	3.9	2.3	bm	dk	shattering	
Ketaka	(AV)	erect-twining	flowering	green-purple	93.8	3.5					
CED2k2005	bulk	-	-	-	-	-	3.3	bm	dk	shattering	including long pods
	bulk	(upper load)	-	-	-	-	2.6	bm	dk	shattering	
	1	twining	flowering	purple	140	1.2	-	-	-	-	
	2	erect	flowering	intermediate	70	2.9	-	-	-	-	lobed leaflets
	3	erect	flowering	green	30	2.6	-	-	-	-	
	4	twining	flowering	purple	120	1.4	2.3	bm	dk	shattering	
	5	erect	flowering	green	90	5.2	-	-	-	-	lobed leaflets
	6	twining	flowering	purple	170	1.8	-	-	-	-	
	7	erect	flowering	green	35	3.8	2.2	bm	dk	shattering	lobed leaflets, long pod
	8	erect	flowering	green	25	3.3	3.2	bm	brown	shattering	lobed leaflets, long pod
	9	twining	flowering	purple	100	2.4	-	-	-	-	
	10	twining	flowering	purple	150	3.4	-	-	-	-	
	11	erect	flowering	green	45	4.6	-	-	-	-	lobed leaflets
	12	twining	flowering	purple	100	3.1	-	-	-	-	
	13	erect	flowering	intermediate	110	4.8	-	-	-	-	
	14	erect	flowering	intermediate	140	2.0	-	-	-	-	
	15	twining	flowering	purple	110	1.7	-	-	-	-	
	16	erect	maturing	green	140	3.6	-	-	-	-	lobed leaflets
	17	semi-erect	early vegetative	purple	30	1.1	-	-	-	-	
	18	erect	maturing	green	110	10.4	-	-	-	-	lobed leaflets
	19	erect	maturing	green	100	9.7	-	-	-	-	lobed leaflets
	20	erect	flowering	green	35	2.9	-	-	-	-	
	21	twining	flowering	purple	120	2.3	-	-	-	-	

Supplementary table (continued).

Aridome	(AV)	erect-twining	flowering-maturing	green-intermediate	112.0	3.4	3.4	bm	dk	shattering	
CED2k2006	1	twining	flowering	green	110	2.4	2.0	bm	dk	shattering	round leaflet, long large pod
	2	semi-erect	flowering	green	70	2.6	3.4	tan	dk	reduced	
	3	twining	flowering	green	90	1.5	2.1	bm	dk	shattering	
	4	twining	maturing	green	170	2.5	3.0	bm	dk	shattering	
	5	erect	flowering	green	30	2.3	-	-	-	-	lobed leaflets
	6	erect	flowering	green	25	3.3	3.3	bm	dk	reduced	lobed leaflets, short pod
	7	erect	early vegetative	green	20	2.0	2.7	bm	dk	shattering	
	8	twining	flowering	intermediate	50	2.4	2.2	bm	dk	shattering	
	9	twining	flowering	intermediate	30	2.1	2.2	bm	dk	shattering	
	10	twining	flowering	intermediate	50	2.6	2.2	bm	gray	shattering	
	11	twining	flowering	intermediate	100	2.6	1.9	bm	dk	shattering	
	12	twining	maturing	intermediate	90	1.8	2.2	bm	dk	shattering	
	13	twining	flowering	purple	110	3.5	2.1	bm	dk	shattering	
	14	twining	maturing	purple	70	2.6	2.2	bm	dk	shattering	
	15	twining	maturing	intermediate	170	2.5	2.4	bm	dk	shattering	
	16	twining	maturing	intermediate	60	1.9	1.9	bm	dk	shattering	
	17	twining	maturing	green	80	2.0	-	-	-	-	
	18	erect	flowering	green	120	6.0	8.6	tan	brown	no	round leaflets, long large pod
	19	erect	flowering	green	90	5.2	-	-	-	-	round leaflets, long large pod
	near14	twining	-	-	-	-	2.1	bm	gray	reduced	
	near12	twining	-	-	-	-	1.9	bm	gray	shattering	
	22	semi-erect	-	-	-	-	4.7	bm	gray	reduced	large long pod
	23	semi-erect	-	-	-	-	6.3	bm	gray	reduced	large long pod
	24	semi-erect	-	-	-	-	5.1	bm	gray	reduced	large long pod
	25	semi-erect	-	-	-	-	4.3	bm	gray	reduced	large long pod
	26	semi-erect	-	-	-	-	3.2	bm	gray	reduced	large long pod
	27	semi-erect	-	-	-	-	3.8	bm	gray	reduced	large long pod
	28	semi-erect	-	-	-	-	3.9	bm	gray	reduced	large long pod
	29	semi-erect	-	-	-	-	5.5	bm	gray	reduced	large long pod
	30	semi-erect	-	-	-	-	5.8	bm	gray	reduced	large long pod
Aridome	(AV)	erect-twining	vegetative-maturing	green-purple	92.1	3.0	2.8	bm	dk	shattering	
CED2k2007	1	erect	maturing	green	60	3.9	4.0	bm	gray	reduced	lobed leaflets, large long pod
	2	erect	maturing	green	80	5.8	2.5	bm	dk	shattering	lobed leaflets
	3	semi-erect	maturing	green	150	5.7	4.1	bm	dk	shattering	lobed leaflets, large long pod
	4	semi-erect	maturing	green	200	3.6	-	-	-	-	lobed leaflets
	5	semi-erect	maturing	green	100	2.4	2.4	bm	dk	shattering	lobed leaflets
	6	semi-erect	maturing	green	150	2.5	2.7	bm	dk	shattering	lobed leaflets
	7	semi-erect	flowering	green	200	2.7	3.3	bm	dk	shattering	lobed leaflets
	8	twining	vegetative	purple	70	3.9	2.2	bm	dk	shattering	
	9	twining	vegetative	purple	45	3.3	2.4	bm	dk	shattering	
	10	twining	vegetative	purple	40	2.5	2.5	bm	dk	shattering	
	11	erect	flowering	green	25	4.0	2.3	bm	dk	shattering	lobed leaflets
	12	twining	vegetative	intermediate	40	2.8	-	-	-	-	
	13	semi-erect	early vegetative	purple	10	1.6	-	-	-	-	lobed leaflets
	14	twining	vegetative	purple	45	2.9	2.1	bm	dk	shattering	
	15	twining	vegetative	purple	60	2.5	2.6	bm	dk	shattering	
	16	twining	early vegetative	intermediate	7	1.8	1.5	bm	dk	shattering	
	17	twining	flowering	purple	70	2.8	2.2	bm	dk	shattering	
	18	twining	maturing	purple	130	1.3	1.7	bm	dk	shattering	
	19	twining	late maturity	purple	180	2.2	1.8	bm	gray	shattering	
	20	twining	flowering	purple	180	2.2	2.5	bm	dk	shattering	
	21	semi-erect	-	-	-	-	4.6	bm	brown	reduced	large long pod
	22	semi-erect	-	-	-	-	4.9	bm	brown	reduced	large long pod
	23	semi-erect	-	-	-	-	3.4	bm	dk	reduced	large long pod
	near1	semi-erect	-	-	-	-	4.5	bm	dk	shattering	large long pod
near11	twining	-	-	-	-	2.1	bm	dk	shattering		
near12	twining	-	-	-	-	3.2	bm	gray	shattering		
Aridome	(AV)	erect-twining	flowering-maturing	green-intermediate	96.7	2.5	2.9	bm	dk	shattering	
CED2k2008	1	twining	maturing	green	200	3.7	2.2	bm	dk	shattering	
	2	twining	maturing	intermediate	210	3.5	-	-	-	-	
	3	erect	maturing	green	50	3.0	3.3	bm	dk	shattering	lobed leaflets, long pod
	4	erect	maturing	green	50	2.7	4.2	bm	dk	shattering	lobed leaflets, long pod
	5	erect	maturing	green	90	4.4	3.7	bm	dk	shattering	lobed leaflets, long pod
	6	erect	flowering	green	70	2.5	-	-	-	-	lobed leaflets, long pod
	7	erect	flowering	green	50	2.1	3.5	bm	dk	shattering	lobed leaflets, long pod
	8	twining	vegetative	intermediate	100	1.7	2.4	bm	dk	shattering	
	9	twining	flowering	intermediate	120	1.2	1.9	bm	dk	shattering	
	10	twining	flowering	purple	80	2.0	2.3	bm	dk	shattering	
	11	twining	flowering	purple	90	2.0	-	-	-	-	
	12	twining	flowering	intermediate	50	0.7	2.1	bm	dk	shattering	
	near11	twining	-	-	-	-	3.4	bm	dk	shattering	

Supplementary table (continued).

39	twining	flowering	purple	-	-	1.5	bm	gray	shattering	short pod	
40	twining	maturing	purple	-	-	-	-	-	-		
41	twining	flowering	intermediate	-	-	-	-	-	-		
42	twining	maturing	green	-	-	-	-	-	-		
43	twining	maturing	intermediate	-	-	2.2	bm	dk	shattering		
44	twining	flowering	intermediate	-	-	-	-	-	-		
45	twining	flowering	purple	-	-	-	-	-	-		
46	twining	flowering	purple	-	-	-	-	-	-		
47	twining	vegetative	purple	-	-	-	-	-	-		
48	twining	maturing	purple	-	-	-	-	-	-		
49	twining	maturing	purple	-	-	-	-	-	-		
50	twining	flowering	purple	-	-	-	-	-	-		
51	twining	maturing	purple	-	-	-	-	-	-		
52	twining	flowering	purple	-	-	-	-	-	-		
53	twining	flowering	purple	-	-	1.3	black	dk	shattering		
54	twining	flowering	purple	-	-	1.9	bm	dk	shattering		
55	twining	maturing	purple	-	-	-	-	-	-		
56	twining	flowering	purple	-	-	-	-	-	-		
57	twining	maturing	purple	-	-	2.5	bm	dk	shattering		
58	twining	flowering	purple	-	-	1.8	bm	dk	shattering		
59	twining	flowering	purple	-	-	-	-	-	-		
60	twining	maturing	intermediate	-	-	1.8	bm	gray	shattering		
61	twining	maturing	purple	-	-	-	-	-	-		
62	twining	flowering	intermediate	-	-	1.7	bm	dk	shattering		
63	twining	flowering	purple	-	-	-	-	-	-		
Aridome	(AV)	erect	flowering	green	-	-	20.2	red	brown	no	
CED2k2012	C01	erect	flowering	green	-	-	18.3	red	brown	no	round leaflets
	C02	erect	flowering	green	-	-	23.4	red	brown	no	round leaflets
	C03	erect	flowering	green	-	-	18.7	red	brown	no	round leaflets
	C04	erect	flowering	green	-	-	-	-	-	-	round leaflets
	C05	erect	flowering	green	-	-	-	-	-	-	round leaflets
	C06	erect	flowering	green	-	-	-	-	-	-	round leaflets
	C07	erect	flowering	green	-	-	-	-	-	-	round leaflets
Aridome	(AV)	erect-twining	flowering-maturing	purple-intermediate	57.1	3.5	3.6	bm	dk	shattering	lobed leaflets
CED2k2013	1	twining	maturing	intermediate	60	2.3	4.7	bm	dk	shattering	lobed leaflets
	2	erect	maturing	purple	30	3.6	2.5	bm	dk	shattering	lobed leaflets
	3	erect	maturing	intermediate	50	3.9	4.3	bm	dk	shattering	lobed leaflets
	4	erect	maturing	purple	80	5.6	5.1	bm	dk	shattering	lobed leaflets
	5	erect	flowering	purple	45	4.9	2.8	bm	dk	shattering	lobed leaflets
	6	twining	maturing	purple	60	2.0	3.2	bm	dk	shattering	lobed leaflets
	7	semi-erect	flowering	green	70	2.8	3.0	bm	dk	shattering	lobed leaflets
	8	erect	maturing	purple	100	3.8	3.9	bm	dk	shattering	lobed leaflets
	9	erect	maturing	green	40	3.3	2.2	bm	dk	shattering	lobed leaflets
	10	semi-erect	flowering	purple	60	5.2	2.9	bm	dk	shattering	lobed leaflets
	11	twining	maturing	purple	70	3.3	4.5	bm	dk	shattering	lobed leaflets
	12	erect	early vegetative	purple	20	1.4	-	-	-	-	
Aridome	(AV)	erect-twining	early vegetative-flowering	green-purple	64.8	3.8	3.6	bm	dk	shattering	lobed leaflets, long pod
CED2k2014	1	erect	early vegetative	purple	30	3.3	3.3	bm	dk	shattering	lobed leaflets, long pod
	2	twining	vegetative	purple	80	2.0	3.0	bm	dk	shattering	long pod
	3	erect	maturing	purple	120	3.9	3.6	bm	dk	shattering	lobed leaflets, long pod
	4	twining	early vegetative	purple	30	1.3	2.7	bm	dk	shattering	long pod
	5	erect	flowering	green	50	3.1	3.0	bm	dk	shattering	lobed leaflets, long pod
	6	erect	vegetative	green	35	4.5	3.5	bm	gray	shattering	lobed leaflets, long pod
	7	erect	vegetative	intermediate	90	3.0	4.3	bm	dk	shattering	lobed leaflets, long pod
	8	erect	maturing	green	80	5.5	-	-	-	-	lobed leaflets
	9	erect	flowering	green	70	5.3	-	-	-	-	lobed leaflets
	10	erect	flowering	green	60	5.2	-	-	-	-	lobed leaflets
	11	erect	flowering	green	50	3.2	4.3	bm	dk	shattering	lobed leaflets, long pod
	12	erect	flowering	green	30	3.1	4.7	bm	dk	shattering	lobed leaflets, long pod
	13	erect	flowering	intermediate	70	5.9	-	-	-	-	lobed leaflets
	14	erect	flowering	intermediate	80	5.5	-	-	-	-	lobed leaflets
Aridome	(AV)	-	-	-	-	-	3.0	bm	dk	shattering	
CED2k2023	1	twining	-	-	-	-	-	bm	brown	no	
	2	twining	-	-	-	-	2.0	bm	gray	no	
	3	semi-erect	-	-	-	-	12.2	red	brown	no	large long pod
	4	twining	-	-	-	-	1.4	bm	gray	shattering	
	5	twining	-	-	-	-	1.6	bm	gray	shattering	
	6	twining	-	-	-	-	2.6	bm	dk	shattering	
	7	twining	-	-	-	-	2.2	black	dk	shattering	
	8	twining	-	-	-	-	1.5	black	dk	shattering	
	9	twining	-	-	-	-	1.8	black	dk	shattering	

Supplementary table (continued).

11	twining	-	-	-	-	1.9	bm	dk	shattering	
12	twining	-	-	-	-	2.6	bm	dk	shattering	
13	twining	-	-	-	-	2.4	bm	dk	shattering	
14	twining	-	-	-	-	1.9	bm	dk	shattering	
15	twining	-	-	-	-	2.3	bm	dk	shattering	
16	twining	-	-	-	-	3.0	bm	dk	no	
17	twining	-	-	-	-	1.4	bm	dk	no	
18	twining	-	-	-	-	2.3	bm	brown	shattering	
19	semi-erect	-	-	-	-	6.7	tan	brown	reduced	large long pod
20	twining	-	-	-	-	1.4	bm	gray	shattering	
21	twining	-	-	-	-	2.8	bm	dk	shattering	
22	twining	-	-	-	-	2.9	bm	dk	shattering	
23	twining	-	-	-	-	3.5	bm (sparsely)	dk	shattering	
24	twining	-	-	-	-	2.2	bm	dk	shattering	
25	twining	-	-	-	-	1.6	bm	dk	shattering	
26	twining	-	-	-	-	1.5	bm	dk	shattering	
27	twining	-	-	-	-	3.0	bm	dk	shattering	
28	twining	-	-	-	-	1.8	black	gray	shattering	
29	semi-erect	-	-	-	-	4.0	bm	dk	shattering	large long pod
30	twining	-	-	-	-	2.1	bm	dk	shattering	
31	semi-erect	-	-	-	-	6.5	tan	dk	reduced	large long pod
32	semi-erect	-	-	-	-	5.3	tan	gray	reduced	large long pod
33	twining	-	-	-	-	2.6	bm (sparsely)	gray	reduced	
34	twining	-	-	-	-	3.7	bm	dk	shattering	
35	twining	-	-	-	-	3.8	bm (sparsely)	brown	reduced	
36	semi-erect	-	-	-	-	5.1	tan	dk	reduced	large long pod
Aridome	(AV)	semi-erect	-	-	-	5.7	bm-tan	dk	shattering	large long pod
CED2k2024	A01	semi-erect	-	-	-	4.8	tan	brown	shattering	large long pod
	A02	semi-erect	-	-	-	5.9	tan	brown	reduced	large long pod
	A03	semi-erect	-	-	-	6.1	tan	dk	shattering	large long pod
	A04	semi-erect	-	-	-	6.9	tan	brown	reduced	large long pod
	A05	semi-erect	-	-	-	6.4	tan	gray	reduced	large long pod
	A06	semi-erect	-	-	-	3.7	tan	dk	shattering	large long pod
	A07	semi-erect	-	-	-	7.9	tan	dk	shattering	large long pod
	A08	semi-erect	-	-	-	5.9	tan	dk	shattering	large long pod
	A09	semi-erect	-	-	-	5.5	bm	dk	shattering	large long pod
	A10	semi-erect	-	-	-	5.9	tan	dk	shattering	large long pod
	A11	semi-erect	-	-	-	5.7	tan	dk	shattering	large long pod
	A12	semi-erect	-	-	-	6.6	tan	dk	shattering	large long pod
	A13	semi-erect	-	-	-	5.3	tan	dk	shattering	large long pod
	A14	semi-erect	-	-	-	5.6	bm	dk	shattering	large long pod
	B01	semi-erect	-	-	-	4.6	bm	dk	shattering	large long pod
	B02	semi-erect	-	-	-	5.0	bm	dk	shattering	large long pod
	B03	semi-erect	-	-	-	4.9	bm	dk	shattering	large long pod
	B04	semi-erect	-	-	-	5.8	bm	dk	shattering	large long pod
	B05	semi-erect	-	-	-	4.9	bm	dk	shattering	large long pod
	B06	semi-erect	-	-	-	5.3	bm	dk	shattering	large long pod
	B07	semi-erect	-	-	-	5.8	bm	dk	shattering	large long pod
	B08	semi-erect	-	-	-	12.4	bm (sparsely)	brown	shattering	large long pod
	C01	semi-erect	-	-	-	4.3	bm	dk	shattering	large long pod
	C02	semi-erect	-	-	-	4.7	bm	dk	shattering	large long pod
	C03	semi-erect	-	-	-	4.8	bm	dk	shattering	large long pod
	C04	semi-erect	-	-	-	4.7	bm	dk	shattering	large long pod
	C05	semi-erect	-	-	-	4.4	bm	dk	shattering	large long pod
	C06	semi-erect	-	-	-	5.9	bm	dk	shattering	large long pod
	D01	semi-erect	-	-	-	7.2	bm	dk	shattering	large long pod
	E01	semi-erect	-	-	-	5.2	bm	dk	shattering	large long pod
	E02	semi-erect	-	-	-	4.4	bm	dk	shattering	large long pod

Supplementary table (continued).

Koge	(AV)	twining	flowering-maturing	purple	112.5	2.7	2.4	bm	dk	shattering	
CED2k2KogeE	1	twining	flowering	purple	50	3.1	2.7	bm	dk	shattering	
	2	twining	flowering	purple	80	2.4	2.0	bm	dk	shattering	
	3	twining	flowering	purple	125	2.0	2.6	bm	dk	shattering	
	4	twining	maturing	purple	130	3.7	-	-	-	-	
	5	twining	maturing	purple	150	2.3	-	-	-	-	
	6	twining	maturing	purple	140	2.8	-	-	-	-	
Koge	(AV)	twining	flowering-maturing	green-purple	97.0	2.6	3.0	bm	dk	shattering	
CED2k2KogeF	1	twining	flowering	purple	100	1.4	2.8	bm	dk	shattering	
	2	twining	flowering	purple	70	1.5	3.0	bm	dk	shattering	
	3	twining	flowering	purple	130	3.0	3.5	bm	dk	shattering	
	4	twining	maturing	green	110	2.8	2.9	bm	dk	shattering	
	5	twining	flowering	purple	75	4.3	2.8	bm	dk	shattering	
Koge		bulk	twining	flowering	purple	-	-	2.6	bm	dk	shattering
Koge		erect	flowering	green	-	-	18.1	red	brown	no	
CED2k2Koge (Cultivar)	C01	erect	flowering	green	-	-	18.1	red	brown	no	
Saji	(AV)	twining	maturing	purple-inter	140.0	2.4					
CED2k2017	bulk	-	-	-	-	-	2.9	bm	dk	shattering	
	1	twining	maturing	purple	200	3.2	-	-	-	-	
	2	twining	late maturity	purple	100	2.1	1.7	bm	dk	shattering	
	3	twining	maturing	purple	160	3.3	2.6	bm	dk	shattering	
	4	twining	maturing	purple	130	1.9	3.2	bm	dk	shattering	
	5	twining	maturing	purple	115	2.0	-	-	-	-	
	6	twining	late maturity	purple	120	2.7	1.5	bm	dk	shattering	
	7	twining	maturing	purple	95	2.1	-	-	-	-	
	8	twining	maturing	purple	100	2.4	-	-	-	-	
	9	twining	maturing	purple	120	2.0	-	-	-	-	
	10	twining	maturing	purple	200	-	-	-	-	-	
11	twining	flowering	purple p green	200	-	-	-	-	-		
Saji		erect	past maturity	green	-	-	8.9	red	brown	no	
CED2k2017 (Cultivar)	Cultivar	erect	past maturity	green	-	-	8.9	red	brown	no	
Saji	(AV)	twining	flowering-maturing	green-purple	121.8	2.6	2.7	bm	dk	shattering	short pod
CED2k2018	1	twining	flowering	intermediate	200	-	3.0	bm	dk	shattering	short pod
	2	twining	flowering	intermediate	200	-	3.5	bm (sparsely)	dk	shattering	
	3	twining	flowering	purple	50	1.8	-	-	-	-	
	4	twining	flowering	purple	90	2.2	3.5	bm	dk	shattering	short pod
	5	twining	maturing	purple	45	1.2	3.1	bm	dk	shattering	short pod
	6	twining	flowering	intermediate	95	3.2	2.3	bm	dk	shattering	short pod
	7	twining	maturing	intermediate	200	-	2.6	bm	dk	shattering	short pod
	8	twining	flowering	purple	55	1.3	-	-	-	-	
	9	twining	late maturity	intermediate	130	2.6	2.2	bm	dk	shattering	short pod
	10	twining	flowering	purple	360	6.1	-	-	-	-	
	11	twining	maturing	intermediate	130	4.9	2.3	bm	dk	shattering	short pod
	12	twining	flowering	purple	80	3.0	-	-	-	-	
	13	twining	flowering	purple	70	2.2	1.6	bm	dk	shattering	
	14	twining	flowering	green	200	-	-	-	-	-	
	15	twining	vegetative	purple	45	1.8	-	-	-	-	
	16	twining	vegetative	purple	30	2.3	-	-	-	-	
	17	twining	vegetative	green	90	1.0	-	-	-	-	
Saji	(AV)	twining	flowering-maturing	green-purple	133.6	3.3	2.8	bm	dk	shattering	
CED2k2019	1	twining	maturing	intermediate	86	1.0	2.2	bm	dk	shattering	short pod
	2	twining	maturing	intermediate	60	1.9	3.0	bm	dk	shattering	short pod
	3	twining	flowering	green	130	3.1	2.5	bm	dk	shattering	short pod
	4	twining	flowering	green	130	4.2	2.5	bm	dk	shattering	short pod
	5	twining	flowering	intermediate	75	1.4	2.3	bm	dk	shattering	short pod
	6	twining	flowering	intermediate	60	1.8	2.4	bm	dk	shattering	short pod
	7	twining	flowering	purple	95	2.1	2.3	bm	dk	shattering	short pod
	8	twining	flowering	green	-	-	2.9	bm	dk	shattering	
	9	twining	flowering	green	190	3.3	3.2	bm	dk	shattering	
	10	twining	flowering	intermediate	80	2.1	2.4	bm	dk	shattering	
	11	twining	flowering	intermediate	100	2.8	2.6	bm	dk	shattering	short pod

Supplementary table (continued).

12	twining	flowering	intermediate	45	2.2	2.7	bm	dk	shattering		
13	twining	flowering	green	220	3.7	3.0	bm	dk	shattering		
14	twining	flowering	green	-	-	2.8	bm	dk	shattering		
15	twining	flowering	intermediate	-	-	2.4	bm	dk	shattering		
16	twining	flowering	green	190	3.5	2.8	bm	dk	shattering		
17	twining	flowering	green	-	-	2.5	bm	dk	shattering		
18	twining	flowering	green	-	-	2.7	bm	dk	shattering		
19	twining	flowering	green	-	-	2.8	bm	dk	shattering		
20	erect	maturing	green	80	4.6	5.1	bm (sparsely)	dk	no	long large pod	
21	twining	maturing	green	150	4.2	3.0	bm	dk	shattering		
22	twining	maturing	green	250	4.4	3.3	bm	dk	shattering		
23	twining	flowering	green	150	4.2	2.5	bm	dk	shattering		
24	twining	flowering	green	210	4.8	2.0	bm	dk	shattering		
25	twining	flowering	green	260	4.2	2.9	bm	dk	shattering		
26	twining	flowering	green	160	3.2	3.1	bm	dk	shattering		
27	twining	flowering	purple	70	2.6	1.9	bm	dk	shattering	short pod	
28	twining	maturing	green	140	3.0	2.5	bm	dk	shattering		
29	twining	maturing	intermediate	60	2.6	2.7	bm	dk	shattering		
30	twining	maturing	intermediate	140	3.0	2.7	bm	dk	shattering		
31	twining	flowering	green	230	4.8	2.3	bm	dk	shattering		
32	twining	flowering	intermediate	160	3.1	3.0	bm	dk	shattering		
33	twining	flowering	green	70	4.4	-	bm	dk	shattering		
34	twining	flowering	green	-	-	4.2	bm	dk	reduced	long pod	
35	twining	flowering	green	-	-	2.6	bm	dk	shattering		
36	twining	flowering	green	120	4.1	3.5	bm	dk	reduced	long pod	
37	twining	maturing	green	190	4.8	3.0	bm	dk	shattering	short pod	
38	twining	maturing	green	140	3.5	2.9	bm	dk	shattering	short pod	
39	twining	flowering	purple	100	3.3	3.5	bm	dk	reduced	long pod	
Saji	(AV)	erect-twining	flowering-maturing	green-purple	79.6	2.9	3.3	bm	dk	shattering	
CED2k2020	1	twining	late maturity	purple	100	1.3	2.6	bm	dk	shattering	short pod
	2	erect	flowering	green	50	4.5	3.9	bm	brown	reduced	lobed leaflets, long pod
	3	erect	late maturity	green	60	3.1	4.1	bm	dk	shattering	round leaflets, short pod
	4	semi-erect	maturing	green	140	2.1	4.5	bm	brown	reduced	long pod
	5	erect	maturing	green	25	2.2	4.8	bm	gray	reduced	lobed leaflets, long large pod
	6	erect	maturing	green	70	3.9	3.6	bm	gray	shattering	long pod
	7	erect	flowering	green	65	2.1	-	-	-	-	lobed leaflets
	8	twining	flowering	green	90	2.1	3.9	bm	dk	shattering	short pod
	9	erect	maturing	green	22	1.7	2.1	bm	brown	shattering	lobed leaflets, long pod
	10	twining	flowering	purple	50	2.0	3.6	bm	dk	shattering	short pod
	11	erect	maturing	green	25	1.6	4.1	bm	gray	shattering	round leaflets, long pod
	12	erect	late maturity	green	35	3.7	4.3	bm	dk	shattering	lobed leaflets, long pod
	13	twining	flowering	intermediate	200	-	3.5	bm	dk	shattering	
	14	twining	maturing	green	120	3.7	2.9	bm	dk	shattering	
	15	twining	late maturity	green	200	6.4	2.8	bm	dk	shattering	
	16	twining	late maturity	intermediate	170	4.2	2.4	bm	dk	shattering	short pod
	17	semi-erect	maturing	intermediate	60	2.7	3.6	bm	dk	reduced	long pod
	18	semi-erect	maturing	green	80	2.0	2.9	bm	dk	reduced	long pod
	19	twining	maturing	green	75	1.4	2.6	bm	dk	reduced	
	20	erect	maturing	green	30	3.3	2.9	bm	dk	reduced	lobed leaflets, long pod
	21	erect	late maturity	green	25	3.1	3.2	bm	dk	shattering	lobed leaflets, long pod
	22	erect	maturing	green	60	3.6	2.5	bm	dk	shattering	lobed leaflets, long pod
near1	-	-	-	-	-	-	2.7	bm	dk	shattering	

Supplementary table (continued).

Kokufu	(AV)	erect-twining	-	-	-	-	4.2	bm-red	dk	shattering	
CED2k2022	A01	erect	-	-	-	-	4.6	bm	dk	shattering	long pod
	A02	erect	-	-	-	-	3.7	bm	dk	shattering	
	A03	twining	-	-	-	-	2.6	bm	dk	shattering	
	A04	twining	-	-	-	-	2.7	bm	dk	shattering	
	A05	twining	-	-	-	-	2.8	bm	dk	shattering	
	A06	twining	-	-	-	-	2.2	bm	dk	shattering	
	A07	twining	-	-	-	-	2.5	bm	dk	shattering	
	A08	semi-erect	-	-	-	-	5.4	red	dk	shattering	
	A09	semi-erect	-	-	-	-	6.3	red	dk	shattering	long pod
	A10	semi-erect	-	-	-	-	5.8	red	dk	reduced	
	A11	semi-erect	-	-	-	-	6.5	red	dk	shattering	long pod
	A12	semi-erect	-	-	-	-	6.4	red	dk	shattering	long pod
	A13	semi-erect	-	-	-	-	6.7	red	dk	shattering	
	A14	semi-erect	-	-	-	-	6.6	red	dk	shattering	
	A15	semi-erect	-	-	-	-	5.6	red	dk	shattering	
	A16	semi-erect	-	-	-	-	5.2	red	brown	reduced	
	A17	semi-erect	-	-	-	-	5.3	red	dk	shattering	
	A18	twining	-	-	-	-	4.6	bm	dk	shattering	short pod
	A19	semi-erect	-	-	-	-	5.5	red	dk	shattering	
	A20	semi-erect	-	-	-	-	6.2	red	dk	shattering	
	A21	twining	-	-	-	-	2.6	bm	dk	shattering	
	A22	twining	-	-	-	-	3.0	bm	dk	shattering	
	A23	twining	-	-	-	-	2.8	bm	dk	shattering	
	A24	twining	-	-	-	-	2.1	bm	dk	shattering	
	A25a	twining	-	-	-	-	2.6	bm	dk	shattering	
	A25b	twining	-	-	-	-	2.6	bm	dk	shattering	short pod
	A26	twining	-	-	-	-	2.3	bm	dk	shattering	short pod
A27	twining	-	-	-	-	2.2	bm	dk	shattering		
Kokufu	(AV)	twining	-	-	-	-	2.3	bm	dk	shattering	
CED2k2022	B01	twining	-	-	-	-	2.9	bm	dk	shattering	
	B02	twining	-	-	-	-	1.9	bm	dk	shattering	
	B03	twining	-	-	-	-	1.7	bm	dk	shattering	
	B04	twining	-	-	-	-	2.1	bm	dk	shattering	
	B05	twining	-	-	-	-	2.1	bm	dk	shattering	
	B06	twining	-	-	-	-	2.5	bm	dk	shattering	
	B07	twining	-	-	-	-	2.6	bm	dk	shattering	
	B08	twining	-	-	-	-	2.3	bm	dk	shattering	
	B09	twining	-	-	-	-	2.3	bm	dk	shattering	
	B10	twining	-	-	-	-	2.3	bm	dk	shattering	
	B11	twining	-	-	-	-	2.5	bm	dk	shattering	
	B12	twining	-	-	-	-	2.8	bm	dk	shattering	
	B13	twining	-	-	-	-	2.6	bm	dk	shattering	