

Supplement Table 1 The climate data of 16 populations of *A. arguta* var. *arguta*, *A. arguta* var. *giraldii* and *A. melanandra*

Species	Ploidy levels	Population code	Altitude (m a.s.l.)	Annual cumulative sunshine hours (h, HS)	Monthly mean maximum temperature (°C)	Monthly mean minimum temperature (°C)	Monthly extreme maximum temperature (°C)	Monthly extreme minimum temperature (°C)	Monthly mean humidity (% rh)	Monthly mean maximum humidity (% rh)	Monthly mean minimum precipitation (mm)	Monthly mean maximum precipitation (mm)
<i>A. melanandra</i>	Tetraploid	SZB	1424.00	1726.5	23.06	-7.74	33.76	-19.34	60.00	83.00	6.40	196.30
<i>A. melanandra</i>	Tetraploid	SZB	1516.33	1726.5	22.51	-8.29	33.21	-19.89	60.00	83.00	6.40	196.30
<i>A. melanandra</i>	Tetraploid	SZB	1608.67	1726.5	21.95	-8.85	32.65	-20.45	60.00	83.00	6.40	196.30
<i>A. melanandra</i>	Tetraploid	SZB	1701.00	1726.5	21.40	-9.40	32.10	-21.00	60.00	83.00	6.40	196.30
<i>A. arguta</i> var. <i>giraldii</i>	Decaploid	SZB	1385.00	1726.5	23.30	-7.50	34.00	-19.10	60.00	83.00	6.40	196.30
<i>A. melanandra</i>	Tetraploid	SSH	1371.00	2312.6	28.60	-6.40	38.60	-22.60	61.00	81.00	8.50	127.30
<i>A. melanandra</i>	Tetraploid	SSH	1372.00	2312.6	28.59	-6.41	38.59	-22.61	61.00	81.00	8.50	127.30
<i>A. melanandra</i>	Tetraploid	SSH	1373.00	2312.6	28.59	-6.41	38.59	-22.61	61.00	81.00	8.50	127.30
<i>A. melanandra</i>	Tetraploid	SSH	1374.00	2312.6	28.58	-6.42	38.58	-22.62	61.00	81.00	8.50	127.30
<i>A. melanandra</i>	Tetraploid	SSH	1375.00	2312.6	28.58	-6.42	38.58	-22.62	61.00	81.00	8.50	127.30
<i>A. melanandra</i>	Tetraploid	SSH	1376.00	2312.6	28.57	-6.43	38.57	-22.63	61.00	81.00	8.50	127.30
<i>A. melanandra</i>	Tetraploid	SSH	1378.00	2312.6	28.56	-6.44	38.56	-22.64	61.00	81.00	8.50	127.30
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid	SNT	601.00	1726.5	29.20	-3.10	37.40	-16.40	70.00	87.00	6.20	193.90
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid	SNT	648.50	1726.5	27.72	-3.09	38.42	-14.69	60.00	83.00	6.40	196.30
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid	SNT	696.00	1726.5	27.43	-3.37	38.13	-14.97	60.00	83.00	6.40	196.30
<i>A. melanandra</i>	Tetraploid	SMT	1260.00	2015.2	25.50	-7.90	34.00	-29.80	60.00	82.00	4.00	140.30
<i>A. melanandra</i>	Tetraploid	SMT	1300.00	2015.2	25.26	-8.14	33.76	-30.04	60.00	82.00	4.00	140.30
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid	SMT	1260.00	2015.2	28.00	-2.80	38.70	-14.40	60.00	83.00	6.40	196.30
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid	SMT	1270.00	2015.2	27.94	-2.86	38.64	-14.46	60.00	83.00	6.40	196.30
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid	SMT	1280.00	2015.2	25.38	-8.02	33.88	-29.92	60.00	82.00	4.00	140.30
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid	SMT	1290.00	2015.2	25.32	-8.08	33.82	-29.98	60.00	82.00	4.00	140.30
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid	SMT	1300.00	2015.2	25.26	-8.14	33.76	-30.04	60.00	82.00	4.00	140.30
<i>A. arguta</i> var. <i>giraldii</i>	Decaploid	SMT	1285.00	2015.2	25.35	-8.05	33.85	-29.95	60.00	82.00	4.00	140.30
<i>A. melanandra</i>	Tetraploid	SLQ	1200.00	2312.6	28.51	-6.49	38.51	-22.69	61.00	81.00	8.50	127.30
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid	SLQ	1185.00	2312.6	28.60	-6.40	38.60	-22.60	61.00	81.00	8.50	127.30
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid	SLQ	1236.25	2312.6	28.29	-6.71	38.29	-22.91	61.00	81.00	8.50	127.30
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid	SLQ	1287.50	2312.6	27.99	-7.02	37.99	-23.22	61.00	81.00	8.50	127.30
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid	SLQ	1338.75	2312.6	27.68	-7.32	37.68	-23.52	61.00	81.00	8.50	127.30
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid	SLQ	1390.00	2312.6	27.37	-7.63	37.37	-23.83	61.00	81.00	8.50	127.30
<i>A. melanandra</i>	Tetraploid	SLG	1406.00	2350.00	32.50	-4.40	42.80	-16.70	63.00	82.00	5.50	95.00
<i>A. melanandra</i>	Tetraploid	SLG	1406.80	2350.00	32.50	-4.40	42.80	-16.70	63.00	82.00	5.50	95.00
<i>A. melanandra</i>	Tetraploid	SLG	1407.60	2350.00	32.51	-4.41	42.79	-16.71	63.00	82.00	5.50	95.00

<i>A. melanandra</i>	Tetraploid SLG	1408.40	2350.00	32.51	-4.41	42.79	-16.71	63.00	82.00	5.50	95.00
<i>A. melanandra</i>	Tetraploid SLG	1409.20	2350.00	32.52	-4.42	42.78	-16.72	63.00	82.00	5.50	95.00
<i>A. melanandra</i>	Tetraploid SLG	1410.00	2350.00	32.52	-4.42	42.78	-16.72	63.00	82.00	5.50	95.00
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid SLG	1406.00	2350.00	32.50	-4.40	42.80	-16.70	63.00	82.00	5.50	95.00
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid SLG	1406.57	2350.00	32.50	-4.40	42.80	-16.70	63.00	82.00	5.50	95.00
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid SLG	1407.14	2350.00	32.51	-4.41	42.79	-16.71	63.00	82.00	5.50	95.00
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid SLG	1407.71	2350.00	32.51	-4.41	42.79	-16.71	63.00	82.00	5.50	95.00
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid SLG	1408.28	2350.00	32.51	-4.41	42.79	-16.71	63.00	82.00	5.50	95.00
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid SLG	1408.85	2350.00	32.52	-4.42	42.78	-16.72	63.00	82.00	5.50	95.00
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid SLG	1409.42	2350.00	32.52	-4.42	42.78	-16.72	63.00	82.00	5.50	95.00
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid SLG	1410.00	2350.00	32.52	-4.42	42.78	-16.72	63.00	82.00	5.50	95.00
<i>A. arguta</i> var. <i>giraldii</i>	Octaploid SHX	1550.00	1850.00	27.19	-5.11	35.39	-18.41	70.00	87.00	6.20	193.90
<i>A. melanandra</i>	Tetraploid SHX	1500.00	1850.00	27.49	-4.81	35.69	-18.11	70.00	87.00	6.20	193.90
<i>A. melanandra</i>	Tetraploid SHX	1550.00	1850.00	27.19	-5.11	35.39	-18.41	70.00	87.00	6.20	193.90
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid SHX	1500.00	1850.00	27.49	-4.81	35.69	-18.11	70.00	87.00	6.20	193.90
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid SHX	1672.00	1850.00	26.46	-5.84	34.66	-19.14	70.00	87.00	6.20	193.90
<i>A. arguta</i> var. <i>giraldii</i>	Octaploid SHH	1215.00	1850.00	29.20	-3.10	37.40	-16.40	70.00	87.00	6.20	193.90
<i>A. arguta</i> var. <i>giraldii</i>	Octaploid SHH	1283.00	1850.00	28.79	-3.51	36.99	-16.81	70.00	87.00	6.20	193.90
<i>A. arguta</i> var. <i>giraldii</i>	Octaploid SHH	1351.00	1850.00	28.38	-3.92	36.58	-17.22	70.00	87.00	6.20	193.90
<i>A. arguta</i> var. <i>giraldii</i>	Octaploid SHH	1419.00	1850.00	27.98	-4.32	36.18	-17.62	70.00	87.00	6.20	193.90
<i>A. arguta</i> var. <i>giraldii</i>	Decaploid SHH	1317.00	1850.00	28.59	-3.71	36.79	-17.01	70.00	87.00	6.20	193.90
<i>A. arguta</i> var. <i>giraldii</i>	Octaploid SCP	1545.00	1860.2	29.70	-4.70	39.00	-17.50	60.00	82.00	5.10	158.70
<i>A. arguta</i> var. <i>giraldii</i>	Octaploid SCP	1566.00	1860.2	29.57	-4.83	38.87	-17.63	60.00	82.00	5.10	158.70
<i>A. arguta</i> var. <i>giraldii</i>	Octaploid SCP	1587.00	1860.2	29.45	-4.95	38.75	-17.75	60.00	82.00	5.10	158.70
<i>A. arguta</i> var. <i>giraldii</i>	Octaploid SBX	1232.00	1860.2	31.20	-3.10	41.70	-16.10	60.00	77.00	5.10	125.20
<i>A. arguta</i> var. <i>giraldii</i>	Decaploid SBX	1291.00	2120.00	30.85	-3.45	41.35	-16.45	60.00	77.00	5.10	125.20
<i>A. arguta</i> var. <i>giraldii</i>	Decaploid SBX	1350.00	2120.00	30.49	-3.81	40.99	-16.81	60.00	77.00	5.10	125.20
<i>A. arguta</i> var. <i>giraldii</i>	Decaploid SBX	1350.00	2120.00	30.49	-3.81	40.99	-16.81	60.00	77.00	5.10	125.20
<i>A. arguta</i> var. <i>giraldii</i>	Decaploid SBX	1289.00	2120.00	30.86	-3.44	41.36	-16.44	60.00	77.00	5.10	125.20
<i>A. arguta</i> var. <i>giraldii</i>	Octaploid HNT	1005.00	1800.00	30.48	-2.52	40.18	-12.52	63.00	81.00	13.60	184.80
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid HNT	1005.00	1800.00	30.48	-2.52	40.18	-12.52	63.00	81.00	13.60	184.80
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid HNT	1033.40	1800.00	30.31	-2.69	40.01	-12.69	63.00	81.00	13.60	184.80
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid HNT	1061.80	1800.00	30.14	-2.86	39.84	-12.86	63.00	81.00	13.60	184.80
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid HNT	1090.20	1800.00	29.97	-3.03	39.67	-13.03	63.00	81.00	13.60	184.80
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid HNT	1118.60	1800.00	29.80	-3.20	39.50	-13.20	63.00	81.00	13.60	184.80
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid HNT	1147.00	1800.00	29.63	-3.37	39.33	-13.37	63.00	81.00	13.60	184.80
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid HNT	1175.40	1800.00	29.46	-3.54	39.16	-13.54	63.00	81.00	13.60	184.80
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid HNT	1203.80	1800.00	29.29	-3.71	38.99	-13.71	63.00	81.00	13.60	184.80

<i>A. arguta</i> var. <i>arguta</i>	Tetraploid HNT	1232.20	1800.00	29.12	-3.88	38.82	-13.88	63.00	81.00	13.60	184.80
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid HNT	1260.60	1800.00	28.95	-4.05	38.65	-14.05	63.00	81.00	13.60	184.80
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid HNT	1289.00	1800.00	28.78	-4.22	38.48	-14.22	63.00	81.00	13.60	184.80
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid HNT	1317.40	1800.00	28.61	-4.39	38.31	-14.39	63.00	81.00	13.60	184.80
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid HNT	1345.80	1800.00	28.44	-4.56	38.14	-14.56	63.00	81.00	13.60	184.80
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid HNT	1374.20	1800.00	28.26	-4.74	37.96	-14.74	63.00	81.00	13.60	184.80
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid HNT	1402.60	1800.00	28.09	-4.91	37.79	-14.91	63.00	81.00	13.60	184.80
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid HNT	1431.00	1800.00	27.92	-5.08	37.62	-15.08	63.00	81.00	13.60	184.80
<i>A. arguta</i> var. <i>giraldii</i>	Octaploid HNS	1276.00	1800.00	28.85	-4.15	38.55	-14.15	63.00	81.00	13.60	184.80
<i>A. arguta</i> var. <i>giraldii</i>	Octaploid HNS	1315.33	1800.00	28.62	-4.38	38.32	-14.38	63.00	81.00	13.60	184.80
<i>A. arguta</i> var. <i>giraldii</i>	Octaploid HNS	1354.67	1800.00	28.38	-4.62	38.08	-14.62	63.00	81.00	13.60	184.80
<i>A. arguta</i> var. <i>giraldii</i>	Octaploid HNS	1394.00	1800.00	28.15	-4.85	37.85	-14.85	63.00	81.00	13.60	184.80
<i>A. arguta</i> var. <i>giraldii</i>	Octaploid HNS	1433.33	1800.00	27.91	-5.09	37.61	-15.09	63.00	81.00	13.60	184.80
<i>A. arguta</i> var. <i>giraldii</i>	Octaploid HNS	1472.67	1800.00	27.67	-5.33	37.37	-15.33	63.00	81.00	13.60	184.80
<i>A. arguta</i> var. <i>giraldii</i>	Octaploid HNS	1512.00	1800.00	27.44	-5.56	37.14	-15.56	63.00	81.00	13.60	184.80
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid HNS	1148.00	1800.00	29.62	-3.38	39.32	-13.38	63.00	81.00	13.60	184.80
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid HNS	1149.33	1800.00	29.61	-3.39	39.31	-13.39	63.00	81.00	13.60	184.80
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid HNS	1150.67	1800.00	29.61	-3.39	39.31	-13.39	63.00	81.00	13.60	184.80
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid HNS	1152.00	1800.00	29.60	-3.40	39.30	-13.40	63.00	81.00	13.60	184.80
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid HNL	835.00	1800.00	31.50	-1.50	41.20	-11.50	63.00	81.00	13.60	184.80
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid HNL	858.00	1800.00	31.36	-1.64	41.06	-11.64	63.00	81.00	13.60	184.80
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid HNL	881.00	1800.00	31.22	-1.78	40.92	-11.78	63.00	81.00	13.60	184.80
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid HNL	904.00	1800.00	31.09	-1.91	40.79	-11.91	63.00	81.00	13.60	184.80
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid HNL	927.00	1800.00	30.95	-2.05	40.65	-12.05	63.00	81.00	13.60	184.80
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid HNL	950.00	1800.00	30.81	-2.19	40.51	-12.19	63.00	81.00	13.60	184.80
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid HNL	973.00	1800.00	30.67	-2.33	40.37	-12.33	63.00	81.00	13.60	184.80
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid HNL	996.00	1800.00	30.53	-2.47	40.23	-12.47	63.00	81.00	13.60	184.80
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid HNL	1019.00	1800.00	30.40	-2.60	40.10	-12.60	63.00	81.00	13.60	184.80
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid HNL	1042.00	1800.00	30.26	-2.74	39.96	-12.74	63.00	81.00	13.60	184.80
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid HNL	1065.00	1800.00	30.12	-2.88	39.82	-12.88	63.00	81.00	13.60	184.80
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid HNL	1088.00	1800.00	29.98	-3.02	39.68	-13.02	63.00	81.00	13.60	184.80
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid HNL	1111.00	1800.00	29.84	-3.16	39.54	-13.16	63.00	81.00	13.60	184.80
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid HLS	1140.00	1800.00	29.67	-3.33	39.37	-13.33	63.00	81.00	13.60	184.80
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid HLS	1176.50	1800.00	29.45	-3.55	39.15	-13.55	63.00	81.00	13.60	184.80
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid HLS	1213.00	1800.00	29.23	-3.77	38.93	-13.77	63.00	81.00	13.60	184.80
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid HLS	1249.50	1800.00	29.01	-3.99	38.71	-13.99	63.00	81.00	13.60	184.80
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid HLS	1286.00	1800.00	28.79	-4.21	38.49	-14.21	63.00	81.00	13.60	184.80
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid HLS	1322.50	1800.00	28.58	-4.43	38.28	-14.43	63.00	81.00	13.60	184.80

<i>A. arguta</i> var. <i>arguta</i>	Tetraploid HLS	1359.00	1800.00	28.36	-4.64	38.06	-14.64	63.00	81.00	13.60	184.80
<i>A. melanandra</i>	Tetraploid GTM	1560.00	2100	29.40	-5.90	37.20	-17.60	61.00	78.00	3.30	91.80
<i>A. melanandra</i>	Tetraploid GTM	1606.00	2100	29.12	-6.18	36.92	-17.88	61.00	78.00	3.30	91.80
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid GTM	1603.00	2100	29.14	-6.16	36.94	-17.86	61.00	78.00	3.30	91.80
<i>A. melanandra</i>	Tetraploid GHM	1400.00	2100	29.40	-4.00	37.80	-16.40	67.00	85.00	5.60	133.70
<i>A. melanandra</i>	Tetraploid GHM	1460.00	2100	29.04	-4.36	37.44	-16.76	67.00	85.00	5.60	133.70
<i>A. melanandra</i>	Tetraploid GHM	1520.00	2100	28.68	-4.72	37.08	-17.12	67.00	85.00	5.60	133.70
<i>A. arguta</i> var. <i>giraldii</i>	Decaploid GHM	1455.00	1726.4	29.07	-4.33	37.47	-16.73	67.00	85.00	5.60	133.70
<i>A. arguta</i> var. <i>giraldii</i>	Decaploid GHM	1463.67	1726.4	29.02	-4.38	37.42	-16.78	67.00	85.00	5.60	133.70
<i>A. arguta</i> var. <i>giraldii</i>	Decaploid GHM	1472.33	1726.4	28.97	-4.43	37.37	-16.83	67.00	85.00	5.60	133.70
<i>A. arguta</i> var. <i>giraldii</i>	Decaploid GHM	1481.00	1726.4	28.91	-4.49	37.31	-16.89	67.00	85.00	5.60	133.70

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Supplement Table 2 The agronomic trait and ploidy data of *A. arguta* var. *arguta*, *A. arguta* var. *giraldii* and *A. melanana*

Species	Ploidy levels	Leaf length (mm)	Leaf width (mm)	Petiole length (mm)	Flower diameter (mm)	Fruit length (mm)	Fruit greater diameter (mm)	Fruit Lesser diameter (mm)	Fruit weight (g)	Soluble solids content (%)
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid	91.49	36.5	45.36	18	23.56	20.03	17.01	4.28	13.6
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid	94.63	55.95	44.77	18.1	24.8	22.3	19.07	5.86	14.5
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid	99.34	55.16	42.39	18.2	25.52	14.73	15.46	3.11	16.4
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid	85.08	33.95	42.18	16.9	21.91	19.63	15.82	3.99	13.4
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid	88	52.03	41.63	22.8	23.07	20.74	16.73	5.45	16.2
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid	92.38	51.29	39.42	18.5	23.73	13.7	13.45	2.9	15.3
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid	82.57	53.5	34.08	18.6	17.35	16.13	14.52	2.63	14.5
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid	72.21	47.23	35.55	17.5	20.26	16.52	16.55	3.97	13.2
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid	82.89	49.9	30.58	20.7	28.4	18.67	16.23	4.8	13.7
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid	95.22	54.52	29.02	18.8	25.32	19.18	16.5	5.4	13.62
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid	110.83	52.59	56.37	18.9	20.35	17.35	16.22	3.5	14.52
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid	104.26	64.85	49.27	20.3	35.53	15.34	14.88	4.78	16.42
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid	107.81	69.09	58.67	19.1	32.87	14.72	14.4	4.13	18.52
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid	102.43	65.68	47.06	24.3	33.64	20.2	18.87	8.22	12.41
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid	79.79	53.69	35.46	17.8	18.19	14.8	13.82	2.44	9.91
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid	88	53.59	43.84	17.9	34.26	19.13	18.02	7.21	9.71
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid	101.73	61.95	52.68	18	39.61	22.11	20.84	8.34	13.63
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid	87.48	42.55	42.37	17.5	28.53	19.33	17.98	5	14.53
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid	91.47	36.49	45.35	18.2	23.55	20.03	17.01	4.28	16.44
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid	94.6	55.93	44.76	18.3	24.8	22.29	19.05	5.86	18.54
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid	95.15	37.97	47.17	18.4	24.51	20.84	17.69	4.45	12.43
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid	98.41	58.18	46.56	18.3	25.8	23.19	19.82	6.09	9.92
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid	103.31	36.49	44.08	18.6	26.53	15.32	15.04	3.23	9.72
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid	92.33	58.38	38.11	19.6	19.39	18.05	16.25	2.94	14.23
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid	80.76	52.82	39.76	18.7	24.89	18.48	17.39	4.34	15.24
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid	92.7	57.36	34.19	20.1	31.76	19.77	18.14	5.37	15.12
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid	106.48	59.83	39.44	18.9	28.31	21.44	18.46	6.04	14.33
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid	123.94	58.81	63.03	24.1	22.76	19.4	18.14	3.91	13.04
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid	116.58	72.52	55.1	18.5	39.74	17.16	16.64	5.34	13.54
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid	82.89	77.27	65.61	17.7	36.75	16.47	16.1	4.61	13.46

<i>A. arguta</i> var. <i>arguta</i>	Tetraploid	95.22	73.45	52.63	19.7	37.62	22.59	21.09	9.19	14.35
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid	75.68	36.81	36.66	17.3	24.68	16.72	15.55	4.33	14.22
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid	88.78	57.53	36.64	18	18.65	17.35	15.62	2.82	18.5
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid	77.65	50.79	38.22	18.4	23.93	17.77	16.73	4.17	12.4
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid	89.14	53.66	32.88	18.5	30.54	19.01	17.45	5.16	9.9
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid	102.38	58.63	31.19	18.6	27.23	20.62	17.74	5.81	9.7
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid	119.17	56.54	60.61	18.1	21.88	18.65	17.44	3.76	14.2
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid	112.1	69.73	52.98	18.7	38.21	16.5	16	5.13	15.2
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid	115.93	74.29	63.08	21.8	35.34	15.83	15.48	4.43	14.3
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid	110.14	70.62	50.61	18.9	36.17	22.73	20.28	8.83	13.3
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid	85.79	57.73	38.12	17.9	19.55	15.92	14.87	2.63	12.4
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid	94.63	57.63	49.14	19.1	32.84	20.58	19.38	7.76	12.5
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid	81.38	39.58	39.41	19.2	26.53	17.98	16.73	4.65	14.5
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid	98.34	39.24	48.76	19.3	25.33	21.54	18.28	4.61	15.22
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid	101.73	60.14	48.12	20.7	26.66	23.97	20.49	6.3	14.32
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid	106.79	59.29	45.57	19.5	27.43	15.84	15.55	3.35	13.32
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid	95.44	61.85	39.39	23.8	20.04	18.65	16.79	3.03	12.41
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid	83.47	54.59	41.09	18.2	25.73	19.09	17.98	4.48	12.52
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid	95.82	57.69	35.34	20.8	32.83	20.43	18.75	5.54	14.52
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid	110.06	63.02	33.54	18.4	29.26	22.16	19.08	6.24	13.42
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid	128.1	60.78	65.15	22.8	23.53	20.04	18.75	4.04	16.22
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid	120.51	74.97	56.95	18.6	41.08	17.73	17.2	5.52	15.32
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid	124.63	79.87	67.82	21.6	37.99	17.02	16.65	4.77	14.52
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid	118.4	75.93	54.4	18.7	38.88	23.36	21.8	9.5	13.22
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid	92.23	62.06	40.99	17.7	21.02	17.11	15.99	2.81	13.72
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid	87.96	35.1	43.61	18.9	22.66	18.26	16.35	4.12	16.23
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid	90.98	53.79	43.05	19	25.85	21.44	18.33	5.64	18.3
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid	95.51	53.03	40.76	19.1	24.54	14.17	13.9	2.99	12.27
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid	85.37	55.31	35.23	20.5	17.93	16.68	15.02	2.72	9.79
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid	74.66	48.84	36.76	19.3	23.01	17.08	16.08	4.01	9.6
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid	85.7	51.6	31.61	24.5	29.37	18.28	16.77	4.96	14.05
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid	120.1	56.36	30	20.8	26.18	19.82	17.06	5.59	15.04
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid	102.83	54.37	58.28	18.1	21.04	17.93	16.77	4.61	14.92
<i>A. arguta</i> var. <i>arguta</i>	Tetraploid	107.79	67.05	50.95	19.1	36.74	15.86	15.39	4.94	14.14
<i>A. arguta</i> var. <i>giraldii</i>	Octaploid	106.26	68.81	51.65	20	23.92	12.78	11.96	1.91	11.9

<i>A. arguta</i> var. <i>giraldii</i>	Octaploid	101.99	57.01	51.12	20.2	24.59	12.56 11.65	1.97	11.9
<i>A. arguta</i> var. <i>giraldii</i>	Octaploid	129.4	82.9	75.55	21.4	33.03	13.98 14.19	3.37	13
<i>A. arguta</i> var. <i>giraldii</i>	Octaploid	120.1	73.66	43.75	20.5	34.6	10.73 11.02	1.98	12.8
<i>A. arguta</i> var. <i>giraldii</i>	Octaploid	102.83	59.85	53.76	18.6	36.82	13.09 12.95	2.91	12.8
<i>A. arguta</i> var. <i>giraldii</i>	Octaploid	102.1	66.6	37.42	18.6	24.35	13.3 13.28	1.71	12.1
<i>A. arguta</i> var. <i>giraldii</i>	Octaploid	111.67	93.26	66.3	20.8	26.27	12.43 12.55	1.64	15
<i>A. arguta</i> var. <i>giraldii</i>	Octaploid	118.87	76.34	64.94	19.3	35.52	14.27 14.23	3.76	15.1
<i>A. arguta</i> var. <i>giraldii</i>	Octaploid	112.94	72.57	52.1	21.2	36.35	19.58 18.64	7.49	14.8
<i>A. arguta</i> var. <i>giraldii</i>	Octaploid	86.73	34.67	43.17	20.4	21.89	16.7 14.45	3.36	14.8
<i>A. arguta</i> var. <i>giraldii</i>	Octaploid	89.71	53.15	42.61	20.6	23.05	18.59 16.2	4.59	14.8
<i>A. arguta</i> var. <i>giraldii</i>	Octaploid	94.18	52.39	43.34	20.8	23.71	12.28 13.3	2.44	15.4
<i>A. arguta</i> var. <i>giraldii</i>	Octaploid	84.17	54.65	34.88	20.9	17.33	14.46 13.27	2.22	15.1
<i>A. arguta</i> var. <i>giraldii</i>	Octaploid	101.68	54.65	36.38	18.8	22.24	14.81 14.22	3.27	13
<i>A. arguta</i> var. <i>giraldii</i>	Octaploid	129.01	48.24	55.54	18.9	25.71	13.74 12.85	2.05	12.8
<i>A. arguta</i> var. <i>giraldii</i>	Octaploid	109.67	73.99	54.97	21.2	26.44	13.5 12.53	2.12	12.3
<i>A. arguta</i> var. <i>giraldii</i>	Octaploid	139.14	89.14	81.23	19.7	35.52	15.04 15.25	3.62	12.1
<i>A. arguta</i> var. <i>giraldii</i>	Decaploid	129.14	79.2	47.03	18.6	37.2	11.54 11.86	2.14	15
<i>A. arguta</i> var. <i>giraldii</i>	Decaploid	110.56	64.35	55.81	18.6	39.6	14.08 12.93	3.12	15.1
<i>A. arguta</i> var. <i>giraldii</i>	Decaploid	109.77	71.61	40.23	21.1	36.18	13.23 13.2	1.84	14.8
<i>A. arguta</i> var. <i>giraldii</i>	Decaploid	120.07	100.27	71.3	18.3	28.26	13.36 13.48	4.76	10.2
<i>A. arguta</i> var. <i>giraldii</i>	Decaploid	105.93	68.61	51.5	22.2	23.85	12.75 11.92	1.9	12
<i>A. arguta</i> var. <i>giraldii</i>	Decaploid	101.68	56.84	50.98	19.2	34.52	12.52 11.61	1.96	10
<i>A. arguta</i> var. <i>giraldii</i>	Decaploid	129.01	82.65	75.32	19.8	32.94	13.94 14.15	3.36	10
<i>A. arguta</i> var. <i>giraldii</i>	Decaploid	119.73	73.43	43.62	22.6	34.5	10.7 11.99	3.98	9.7
<i>A. arguta</i> var. <i>giraldii</i>	Decaploid	102.51	59.68	53.6	20.1	36.72	13.25 12.91	2.9	9
<i>A. arguta</i> var. <i>giraldii</i>	Decaploid	101.79	66.4	37.31	18.8	24.28	12.27 12.23	3.7	12.1
<i>A. arguta</i> var. <i>giraldii</i>	Decaploid	111.33	92.98	66.1	18.9	26.2	12.38 12.51	1.64	12.4
<i>A. melanandra</i>	Tetraploid	79.14	37.27	31.22	18.6	35.88	22.88 19.17	8.55	12.5
<i>A. melanandra</i>	Tetraploid	92.22	46.58	28.08	18.6	27.08	18.3 16.58	5.31	13
<i>A. melanandra</i>	Tetraploid	86.75	36.37	29.8	18.7	34.56	17.05 15.42	4.94	13.8
<i>A. melanandra</i>	Tetraploid	102.12	73.25	43.15	17.9	36.83	21.6 19.99	7.94	17.6
<i>A. melanandra</i>	Tetraploid	96.54	45.21	36.91	16.6	29.3	19.25 18.61	4.24	14.3
<i>A. melanandra</i>	Tetraploid	75.05	38.68	43.95	17.1	23.97	24.31 22.62	7.36	9.8
<i>A. melanandra</i>	Tetraploid	84.05	42.7	54.27	19.1	24.48	26.09 23.4	8.27	10.4
<i>A. melanandra</i>	Tetraploid	67.46	32.45	18.35	19.1	30.93	21.41 20.18	7.8	15.3
<i>A. melanandra</i>	Tetraploid	80.68	43.4	36.81	16.8	28.15	20.48 19.18	6.54	13.2

<i>A. melanandra</i>	Tetraploid	94.97	39.58	36.91	19.4	29.03	20.68	19.14	6.64	14.6
<i>A. melanandra</i>	Tetraploid	114.94	50.33	57.53	17.7	26.12	24.3	22.03	7.91	13.2
<i>A. melanandra</i>	Tetraploid	109.44	51.34	44.61	19.6	27.86	19.28	19.23	4.9	12.5
<i>A. melanandra</i>	Tetraploid	73.6	34.65	29.04	19.3	33.36	21.27	18.82	7.95	13.06
<i>A. melanandra</i>	Tetraploid	85.76	43.32	26.12	22.4	25.18	17.01	15.42	4.95	13.59
<i>A. melanandra</i>	Tetraploid	80.68	33.82	27.72	19.5	32.13	15.85	14.34	4.59	14.42
<i>A. melanandra</i>	Tetraploid	94.97	68.12	40.13	21.6	34.25	20.08	18.59	7.38	18.39
<i>A. melanandra</i>	Tetraploid	89.79	42.04	34.32	19.4	29.25	17.9	18.31	3.95	14.94
<i>A. melanandra</i>	Tetraploid	69.8	35.97	51.57	18.8	22.3	22.6	21.03	6.85	10.24
<i>A. melanandra</i>	Tetraploid	78.17	39.71	50.48	21.7	22.76	24.26	21.76	7.7	10.87
<i>A. melanandra</i>	Tetraploid	79.94	41.19	36.15	17.3	25.54	25.88	24.09	7.83	15.99
<i>A. melanandra</i>	Tetraploid	89.51	45.47	47.81	20.3	29.07	26.79	24.92	8.82	13.79
<i>A. melanandra</i>	Tetraploid	71.84	34.56	19.55	19.2	32.95	22.8	21.49	8.31	15.26
<i>A. melanandra</i>	Tetraploid	85.37	46.23	39.2	19.8	29.98	21.81	20.42	6.96	13.79
<i>A. melanandra</i>	Tetraploid	89.09	42.15	39.3	19.3	31.91	22.03	20.38	7.07	13.06
<i>A. melanandra</i>	Tetraploid	122.41	53.6	61.27	20	27.83	25.87	23.46	8.42	13.2
<i>A. melanandra</i>	Tetraploid	116.54	54.67	47.5	23.1	29.66	20.53	17.28	5.22	15.5
<i>A. melanandra</i>	Tetraploid	83.19	42.02	25.33	18.3	24.42	16.51	14.96	4.8	13.18



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Ascorbic acid content(mg/100g fresh weight)	Total sugar content (g/100g fresh weight)	Total acid (g/100g fresh weight)	Total amino acid content (g/100g fresh weight)	Asparagine (g/100g fresh weight))	Threonine (g/100g fresh weight)	Serine (g/100g fresh weight)	Glutamic acid (g/100g fresh weight)	Proline (g/100g fresh weight)	Glycine (g/100g fresh weight)	Alanine (g/100g fresh weight)	Cystine (g/100g fresh weight)
26.99	8.16	0.78	0.7539	0.094	0.0434	0.0408	0.0984	0.068	0.0466	0.0445	0.0093
52.3	8.35	1.07	0.86	0.0971	0.0457	0.0428	0.139	0.0768	0.0515	0.055	0.0113
52.58	8.62	1.21	1.1449	0.1389	0.0492	0.0550	0.1653	0.088	0.0587	0.0707	0.0146
25.1	7.59	0.72	0.701	0.0874	0.0404	0.0379	0.0915	0.0633	0.0433	0.0414	0.0087
48.63	7.78	0.99	0.7998	0.0903	0.0425	0.0398	0.1293	0.0714	0.0479	0.0512	0.0105
48.9	7.09	1.12	1.0647	0.1292	0.0457	0.0511	0.1537	0.0819	0.0546	0.0657	0.0135
45.28	8.17	0.83	0.766	0.0952	0.0467	0.0425	0.0986	0.0643	0.0511	0.0458	0.0132
16.43	5.1	1.3	0.7379	0.0832	0.0382	0.0376	0.1144	0.0693	0.0445	0.0456	0.0102
51.99	7.53	1.1	0.5493	0.0629	0.0399	0.0327	0.0761	0.0557	0.0409	0.0337	0.0091
81.18	8.86	1.23	0.6593	0.0767	0.038	0.0362	0.0929	0.0595	0.0409	0.0416	0.0084
56.8	10.59	0.9	1.014	0.1129	0.056	0.0530	0.1414	0.0831	0.0602	0.0702	0.017
54.62	10.18	0.86	0.9749	0.1085	0.0538	0.0510	0.1359	0.0799	0.0579	0.0675	0.0164
23.01	6.95	1.27	0.977	0.1083	0.047	0.0505	0.1742	0.0888	0.0528	0.0712	0.0167
54.6	7.67	1.15	0.9868	0.1175	0.0475	0.0695	0.1552	0.0821	0.0535	0.0612	0.0133
68.19	7.17	1.18	1.22	0.1496	0.0546	0.0565	0.1763	0.0905	0.0597	0.0699	0.0155
52.06	8.77	1.39	1.0321	0.1236	0.0522	0.0542	0.1741	0.092	0.058	0.0683	0.0152
60.18	10.14	1.6	1.193	0.1429	0.0604	0.0627	0.2012	0.1062	0.0671	0.0789	0.0176
59.79	9.88	2.11	1.0214	0.1055	0.0506	0.0532	0.1634	0.1006	0.0581	0.0604	0.0142
26.98	8.16	0.78	0.7537	0.094	0.0434	0.0408	0.0983	0.068	0.0466	0.0445	0.0093
52.29	8.35	1.07	0.8598	0.097	0.0457	0.0427	0.139	0.0768	0.0515	0.055	0.0112
28.07	8.48	0.81	0.784	0.0978	0.0452	0.0424	0.1022	0.0707	0.0485	0.0463	0.0097
54.39	8.69	1.11	0.8944	0.1008	0.0475	0.0445	0.1446	0.0799	0.0535	0.0572	0.0117
54.68	7.93	1.26	1.1907	0.1445	0.0512	0.0572	0.1718	0.0916	0.061	0.0735	0.0151
61.81	9.13	0.93	0.8566	0.1064	0.0522	0.0475	0.1102	0.0719	0.0571	0.0513	0.0148
18.37	5.71	1.34	0.8252	0.0931	0.0428	0.0420	0.1279	0.0776	0.0497	0.051	0.0114
58.15	8.41	1.19	0.7142	0.0704	0.0446	0.0365	0.0851	0.0623	0.0458	0.0377	0.0102
90.79	9.91	1.38	0.7373	0.0857	0.0425	0.0405	0.1038	0.0666	0.0457	0.0466	0.0094
63.52	11.83	1	1.1339	0.1262	0.0626	0.0593	0.1581	0.0929	0.0674	0.0785	0.019
61.07	11.39	0.96	1.0903	0.1214	0.0602	0.0570	0.152	0.0894	0.0648	0.0755	0.0183
25.73	7.77	1.42	1.0927	0.1212	0.0526	0.0565	0.1948	0.0994	0.0591	0.0797	0.0187

61.05	8.57	1.29	1.1035	0.1314	0.0531	0.0777	0.1734	0.0918	0.0599	0.0685	0.0149
51.73	8.55	1.82	0.8836	0.0913	0.0438	0.0460	0.1413	0.0871	0.0502	0.0522	0.0123
59.44	8.78	0.89	0.8237	0.1023	0.0502	0.0457	0.1059	0.0691	0.0549	0.0493	0.0112
17.66	5.49	1.29	0.7934	0.0895	0.0411	0.0404	0.123	0.0746	0.0478	0.0491	0.0109
55.91	8.1	1.15	0.5906	0.0677	0.0429	0.0350	0.0818	0.0599	0.044	0.0362	0.0098
87.29	9.53	1.33	0.7089	0.0824	0.0408	0.0390	0.0999	0.064	0.044	0.0448	0.009
61.07	11.39	0.96	1.0903	0.1214	0.0602	0.0570	0.152	0.0894	0.0648	0.0755	0.0183
58.73	10.95	0.93	1.0483	0.1167	0.0579	0.0548	0.1462	0.0859	0.0623	0.0726	0.0176
24.75	7.47	1.37	1.0506	0.1165	0.0506	0.0543	0.1873	0.0955	0.0568	0.0766	0.018
58.71	8.25	1.24	1.0611	0.1263	0.0511	0.0747	0.1667	0.0883	0.0576	0.0658	0.0143
63.32	7.71	1.26	1.3118	0.1609	0.0587	0.0608	0.1896	0.0973	0.0642	0.0752	0.0166
55.97	9.43	1.49	1.1098	0.133	0.0562	0.0583	0.1872	0.0989	0.0624	0.0734	0.0164
55.62	9.19	1.96	0.9501	0.0982	0.0471	0.0495	0.152	0.0937	0.054	0.0561	0.0132
29.01	8.77	0.84	0.8104	0.1009	0.0467	0.0439	0.1056	0.0731	0.0501	0.0478	0.01
56.22	8.98	1.15	0.9245	0.1042	0.0491	0.0460	0.1495	0.0826	0.0553	0.0591	0.0121
56.53	8.2	1.3	1.2308	0.1493	0.0529	0.0591	0.1776	0.0947	0.0631	0.076	0.0156
63.89	9.44	0.96	0.8855	0.11	0.054	0.0492	0.1139	0.0743	0.059	0.053	0.0153
18.99	5.9	1.38	0.8529	0.0962	0.0442	0.0434	0.1322	0.0802	0.0514	0.0528	0.0118
60.11	8.7	1.23	0.6348	0.0727	0.0461	0.0377	0.088	0.0644	0.0473	0.039	0.0105
93.84	10.25	1.43	0.7622	0.0886	0.0439	0.0419	0.1073	0.0688	0.0473	0.0482	0.0097
65.65	12.23	1.04	1.172	0.1305	0.0647	0.0613	0.1635	0.0961	0.0697	0.0812	0.0197
63.14	11.76	1	1.127	0.1255	0.0622	0.0589	0.1572	0.0924	0.067	0.078	0.0189
26.6	8.04	1.47	1.1294	0.1252	0.0544	0.0584	0.2014	0.1026	0.0611	0.0823	0.0194
63.11	8.86	1.33	1.1407	0.1358	0.0549	0.0803	0.1793	0.0949	0.0619	0.0708	0.0154
78.81	8.29	1.36	1.4102	0.1729	0.0631	0.0654	0.2039	0.1045	0.069	0.0809	0.0179
25.95	7.85	0.75	0.7248	0.0904	0.0417	0.0392	0.0946	0.0654	0.0448	0.0428	0.0089
50.28	8.04	1.03	0.8269	0.0933	0.0439	0.0411	0.1337	0.0739	0.0495	0.0529	0.0108
50.56	7.33	1.16	1.1008	0.1335	0.0473	0.0529	0.1589	0.0846	0.0564	0.0679	0.014
57.15	8.44	0.86	0.792	0.0984	0.0483	0.0440	0.1018	0.0665	0.0528	0.0474	0.0137
16.99	5.28	1.24	0.7629	0.086	0.0395	0.0388	0.1182	0.0717	0.046	0.0472	0.0105
53.76	7.79	1.1	0.5678	0.065	0.0413	0.0337	0.0787	0.0576	0.0423	0.0348	0.0094
83.93	9.16	1.28	0.6817	0.0793	0.0392	0.0375	0.0961	0.0616	0.0423	0.0431	0.0087
58.72	10.95	0.93	1.0483	0.1167	0.0579	0.0548	0.1462	0.0859	0.0623	0.0726	0.0176
56.47	10.52	0.89	1.008	0.1122	0.0557	0.0527	0.1405	0.0826	0.0599	0.0698	0.0169
142.16	5	0.9	1.5292	0.1833	0.0748	0.0679	0.2417	0.121	0.0844	0.0847	0.0223

102.66	5.38	0.9	1.7628	0.2606	0.0819	0.0705	0.2575	0.1236	0.0842	0.0912	0.0225
56.95	6.79	0.88	2.0423	0.4264	0.0962	0.0836	0.3143	0.128	0.0872	0.126	0.0263
95.55	6.06	0.97	1.8731	0.2265	0.072	0.0672	0.2084	0.0999	0.07	0.0847	0.0182
86.59	6.42	0.92	1.84914	0.326	0.0868	0.0728	0.2599	0.1219	0.0824	0.0969	0.0231
115.29	5.62	0.54	1.473	0.1814	0.0765	0.0650	0.2188	0.1132	0.0857	0.0832	0.0199
116.28	7.33	0.85	1.5793	0.189	0.075	0.0666	0.249	0.1224	0.084	0.0833	0.0214
25.23	10.47	1.24	1.2347	0.1353	0.0544	0.0557	0.1966	0.0966	0.0583	0.0815	0.0188
59.85	6.87	1.12	1.0945	0.1467	0.0549	0.0766	0.175	0.0893	0.0591	0.0701	0.0149
35.43	6.81	0.65	1.1894	0.1008	0.0432	0.0387	0.0954	0.0636	0.0442	0.0438	0.009
49.29	6.81	0.89	1.1079	0.1041	0.0454	0.0406	0.1349	0.0718	0.0488	0.0541	0.0109
49.56	11.29	1.01	1.2867	0.1491	0.0489	0.0522	0.1604	0.0823	0.0557	0.0695	0.0141
56.01	8.51	0.75	1.0113	0.1098	0.0499	0.0434	0.1028	0.0647	0.0521	0.0485	0.0137
16.65	6.49	1.07	1.1228	0.096	0.0409	0.0384	0.1193	0.0697	0.0454	0.0483	0.0106
152.85	6.03	0.97	1.8365	0.1971	0.0804	0.0730	0.2599	0.1301	0.0908	0.0911	0.024
110.38	5.97	0.96	1.8869	0.2802	0.078	0.0748	0.2769	0.1729	0.0906	0.088	0.0642
61.25	5.64	0.95	2.3555	0.4585	0.1034	0.0899	0.338	0.1376	0.0938	0.1355	0.0283
102.74	7.4	1.04	1.9709	0.2435	0.0775	0.0722	0.2241	0.1075	0.0752	0.0911	0.0196
93.11	10.5	0.99	1.9786	0.3506	0.0933	0.0783	0.2795	0.131	0.0886	0.1041	0.0248
123.97	7.04	0.58	1.5216	0.195	0.0822	0.0699	0.2352	0.1217	0.0922	0.0894	0.0214
125.03	4.99	0.91	1.6356	0.2032	0.0807	0.0716	0.2678	0.1316	0.0903	0.0895	0.023
141.73	5.54	0.9	1.5737	0.1828	0.0746	0.0677	0.241	0.1206	0.0842	0.0845	0.0222
102.34	3.31	0.89	1.8358	0.2598	0.0816	0.0703	0.2567	0.1232	0.084	0.0909	0.0225
56.78	4.63	0.88	2.1328	0.4251	0.0959	0.0834	0.3133	0.1276	0.087	0.1257	0.0262
95.25	3.07	0.97	1.9	0.2259	0.0718	0.0670	0.2078	0.0997	0.0698	0.0845	0.0182
86.33	3.06	0.92	1.9834	0.325	0.0865	0.0726	0.2591	0.1215	0.0822	0.0966	0.023
114.94	5.55	0.54	1.3871	0.1808	0.0762	0.0648	0.2181	0.1128	0.0855	0.0829	0.0198
115.93	6.02	0.84	1.5932	0.1884	0.0748	0.0664	0.2483	0.122	0.0838	0.083	0.0214
76.86	7.82	1.31	0.9289	0.099	0.0474	0.0487	0.1635	0.0835	0.053	0.0542	0.0139
80.21	7.87	1.08	1.0247	0.108	0.0519	0.0531	0.1762	0.0953	0.0572	0.0595	0.0153
80.18	8.65	0.78	1.0187	0.107	0.0527	0.0515	0.1643	0.0967	0.0575	0.0594	0.0145
73.87	10.43	0.91	1.0403	0.1095	0.0533	0.0532	0.1721	0.0984	0.0586	0.0607	0.015
78.75	8.76	1.27	0.8806	0.0925	0.0438	0.0464	0.1625	0.0774	0.0492	0.0524	0.0135
58.36	6.73	0.82	1.0377	0.1096	0.052	0.0550	0.1886	0.0936	0.0572	0.0599	0.0165
102.49	7.24	0.75	1.0057	0.1053	0.0525	0.0506	0.1603	0.0946	0.0566	0.0584	0.0146
62.32	9.45	1.33	0.7586	0.0779	0.0376	0.0400	0.1396	0.0641	0.0409	0.0478	0.0115
99.3	8.38	1.3	0.9761	0.1029	0.0488	0.0516	0.177	0.0879	0.0537	0.0562	0.0155

75.51	9.01	1.37	1.0286	0.1093	0.0511	0.0540	0.1931	0.0908	0.0598	0.0604	0.0152
55.34	8.26	1.25	0.7765	0.0839	0.0421	0.0401	0.1193	0.0714	0.0452	0.0457	0.0108
98.81	7.69	1.06	0.9252	0.0983	0.0487	0.0480	0.1502	0.0892	0.0536	0.0553	0.0114
71.49	7.93	1.22	0.8639	0.092	0.0441	0.0452	0.1521	0.0777	0.0493	0.0504	0.0129
74.6	8.38	1	0.953	0.1004	0.0483	0.0494	0.1639	0.0887	0.0532	0.0554	0.0142
74.57	8.87	0.73	0.9474	0.0996	0.049	0.0479	0.1528	0.09	0.0535	0.0553	0.0135
68.7	10.72	0.84	0.9675	0.1016	0.0495	0.0491	0.1575	0.0925	0.0547	0.0565	0.0135
73.24	9.1	1.19	0.8189	0.086	0.0407	0.0431	0.1511	0.0719	0.0457	0.0487	0.0125
54.28	8.03	0.77	0.9652	0.1018	0.0495	0.0494	0.1601	0.0915	0.0545	0.0564	0.0139
95.32	7.49	0.7	0.9353	0.098	0.0488	0.0471	0.1491	0.0879	0.0526	0.0543	0.0136
62.16	10.06	0.88	1.1052	0.1164	0.0567	0.0562	0.1802	0.1058	0.0626	0.0648	0.0154
109.16	8.6	0.8	1.0711	0.1122	0.0559	0.0539	0.1706	0.1006	0.0603	0.0622	0.0155
77.02	9.3	1.42	0.8079	0.083	0.0401	0.0426	0.1487	0.0683	0.0436	0.0509	0.0122
105.76	8.51	1.38	1.0395	0.1093	0.0532	0.0528	0.1692	0.0995	0.0588	0.0608	0.0145
80.42	8	1.46	1.0955	0.1164	0.0544	0.0575	0.2057	0.0967	0.0637	0.0643	0.0162
58.93	8.32	1.33	0.827	0.0894	0.0448	0.0427	0.1271	0.0768	0.0481	0.0487	0.0115
105.23	9.79	1.13	0.9854	0.1046	0.0519	0.0511	0.1599	0.095	0.0571	0.0589	0.0121
72.37	8.23	0.97	0.9243	0.0975	0.0468	0.0479	0.159	0.086	0.0516	0.0517	0.0138

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Valine (g/100g fresh weight)	Methionine (g/100g fresh weight)	Isoleucine (g/100g fresh weight)	Leucine (g/100g fresh weight)	Tyrosine (g/100g fresh weight)	Phenylala nine (g/100g fresh weight)	Lysine (g/100g fresh weight)	Histidine (g/100g fresh weight)	Arginine (g/100g fresh weight)	Total Anthocyanin (mg/100g fresh weight)
0.0454	0.005	0.0337	0.0558	0.0328	0.0264	0.0727	0.0177	0.0357	
0.0504	0.0052	0.0568	0.039	0.026	0.0311	0.0777	0.0188	0.0542	
0.0576	0.0054	0.0638	0.0461	0.0298	0.0361	0.0988	0.0257	0.056	
0.0422	0.0047	0.0314	0.0519	0.0305	0.0246	0.0676	0.0164	0.0333	
0.0468	0.0048	0.0528	0.0363	0.0242	0.0289	0.0722	0.0175	0.0504	
0.0536	0.005	0.0593	0.0428	0.0277	0.0335	0.0919	0.0239	0.0521	
0.0455	0.005	0.0487	0.0395	0.0362	0.0266	0.071	0.0167	0.0356	
0.0422	0.0033	0.0497	0.0338	0.0235	0.0287	0.0639	0.0173	0.0473	
0.0368	0.004	0.0424	0.0312	0.0255	0.0237	0.0539	0.013	0.0335	
0.0395	0.0047	0.0456	0.0318	0.0158	0.0257	0.0648	0.0158	0.0361	
0.059	0.0032	0.06	0.0494	0.0892	0.0297	0.0807	0.022	0.0475	
0.0567	0.0031	0.0577	0.0475	0.0858	0.0285	0.0776	0.0212	0.0457	
0.0521	0.0042	0.0612	0.0404	0.0269	0.0292	0.0848	0.0235	0.0651	
0.0529	0.0053	0.059	0.0415	0.0284	0.0334	0.088	0.0228	0.0528	
0.0596	0.0054	0.0647	0.0474	0.1706	0.0364	0.1007	0.0269	0.0617	
0.0571	0.0061	0.0648	0.0447	0.0285	0.038	0.0992	0.0261	0.0511	
0.066	0.0071	0.075	0.0517	0.0329	0.044	0.1146	0.0301	0.0591	
0.0585	0.0045	0.0755	0.0454	0.0255	0.0365	0.0925	0.027	0.0717	
0.0454	0.005	0.0337	0.0558	0.0328	0.0264	0.0727	0.0177	0.0357	
0.0504	0.0052	0.0568	0.039	0.026	0.0311	0.0777	0.0188	0.0542	
0.0472	0.0052	0.035	0.0581	0.034	0.0275	0.0756	0.0184	0.0372	
0.0524	0.0054	0.0591	0.0406	0.0271	0.0323	0.0808	0.0196	0.0564	
0.06	0.0056	0.0663	0.0479	0.031	0.0375	0.1027	0.0267	0.0583	
0.0509	0.0056	0.0545	0.0442	0.0404	0.0298	0.0794	0.0187	0.0399	
0.0472	0.0037	0.0555	0.0378	0.0263	0.0321	0.0715	0.0194	0.053	
0.0412	0.0045	0.0474	0.0348	0.0285	0.0265	0.0603	0.0145	0.0375	
0.0441	0.0052	0.0511	0.0354	0.0177	0.0287	0.0725	0.0176	0.0404	
0.066	0.0036	0.0671	0.0553	0.0998	0.0332	0.0903	0.0246	0.0532	
0.0635	0.0034	0.0645	0.0532	0.0959	0.0319	0.0868	0.0237	0.0511	
0.0583	0.0047	0.0685	0.0452	0.0301	0.0327	0.0948	0.0262	0.0728	

0.0591	0.0059	0.066	0.0464	0.0317	0.0373	0.0985	0.0255	0.059	
0.0506	0.0039	0.0653	0.0392	0.022	0.0317	0.08	0.0234	0.062	
0.0489	0.005	0.0524	0.0325	0.0389	0.0286	0.0763	0.018	0.0383	
0.0454	0.0036	0.0534	0.0364	0.0253	0.0309	0.0688	0.0186	0.0509	
0.0396	0.0043	0.0455	0.0334	0.0274	0.0255	0.058	0.0139	0.036	
0.0424	0.005	0.0491	0.0341	0.017	0.0276	0.0697	0.017	0.0388	
0.0635	0.0034	0.0645	0.0532	0.0959	0.0319	0.0868	0.0237	0.0511	
0.061	0.0033	0.062	0.0511	0.0922	0.0307	0.0835	0.0227	0.0492	
0.0561	0.0045	0.0658	0.0435	0.0289	0.0314	0.0912	0.0252	0.07	
0.0569	0.0057	0.0634	0.0446	0.0305	0.0359	0.0947	0.0245	0.0568	
0.0641	0.0058	0.0696	0.051	0.1834	0.0391	0.1083	0.029	0.0664	
0.0614	0.0066	0.0697	0.0481	0.0306	0.0409	0.1066	0.028	0.0549	
0.0544	0.0042	0.0702	0.0422	0.0237	0.0339	0.086	0.0251	0.0667	
0.0488	0.0054	0.0362	0.06	0.0352	0.0284	0.0781	0.019	0.0384	
0.0542	0.0056	0.0611	0.0419	0.028	0.0333	0.0835	0.0202	0.0583	
0.062	0.0058	0.0686	0.0495	0.032	0.0388	0.1062	0.0276	0.0602	
0.0526	0.0058	0.0563	0.0457	0.0418	0.0308	0.0821	0.0193	0.0412	
0.0488	0.0039	0.0574	0.0391	0.0272	0.0332	0.0739	0.02	0.0547	
0.0425	0.0046	0.049	0.036	0.0294	0.0274	0.0623	0.015	0.0387	
0.0456	0.0054	0.0528	0.0366	0.0183	0.0297	0.0749	0.0182	0.0418	
0.0682	0.0037	0.0694	0.0572	0.103	0.0342	0.0933	0.0254	0.055	3.05
0.0656	0.0035	0.0667	0.055	0.0991	0.033	0.0897	0.0245	0.0529	0.98
0.0603	0.0048	0.0708	0.0468	0.0311	0.0337	0.098	0.0271	0.0753	0.27
0.0611	0.0061	0.0682	0.048	0.0328	0.0386	0.1017	0.0263	0.061	0.76
0.0689	0.0062	0.0749	0.0548	0.1972	0.0421	0.1164	0.0311	0.0713	0.41
0.0436	0.0048	0.0325	0.0537	0.0316	0.0254	0.0699	0.017	0.0344	3.71
0.0484	0.005	0.0546	0.0375	0.025	0.0299	0.0747	0.0181	0.0521	0.71
0.0554	0.0052	0.0613	0.0443	0.0286	0.0347	0.095	0.0247	0.0539	2.65
0.0471	0.0052	0.0504	0.0409	0.0374	0.0275	0.0734	0.0173	0.0368	0.71
0.0436	0.0035	0.0513	0.035	0.0243	0.0297	0.0661	0.0179	0.049	0.68
0.038	0.0041	0.0438	0.0323	0.0263	0.0245	0.0558	0.0134	0.0346	1.71
0.0408	0.0048	0.0472	0.0329	0.0163	0.0266	0.067	0.0163	0.0373	2.30
0.061	0.0033	0.062	0.0511	0.0922	0.0307	0.0835	0.0227	0.0492	2.58
0.0587	0.0032	0.0596	0.0491	0.0887	0.0295	0.0803	0.0219	0.0473	2.03
0.0817	0.0048	0.0924	0.0643	0.0735	0.0495	0.0832	0.0328	0.1066	

0.0831	0.0073	0.0909	0.0649	0.1545	0.0497	0.0894	0.0332	0.1132	
0.091	0.0078	0.0959	0.0699	0.2144	0.0562	0.0959	0.0406	0.1295	
0.0715	0.005	0.0734	0.0574	0.4594	0.0397	0.0877	0.0321	0.0858	
0.0828	0.0076	0.0866	0.0642	0.2415	0.0514	0.0901	0.0331	0.1095	
0.0804	0.008	0.066	0.0843	0.0623	0.0562	0.086	0.0289	0.0728	
0.0814	0.0068	0.093	0.0641	0.0639	0.0469	0.0867	0.0326	0.1141	
0.0581	0.0044	0.0672	0.0449	0.0381	0.0322	0.0703	0.0262	0.0747	
0.0589	0.0055	0.0647	0.046	0.0402	0.0369	0.073	0.0255	0.0605	
0.0435	0.0045	0.0319	0.0532	0.04	0.0251	0.0518	0.017	0.0352	
0.0482	0.0046	0.0536	0.0372	0.0318	0.0295	0.0553	0.0181	0.0535	
0.0552	0.0049	0.0602	0.0439	0.0363	0.0342	0.0704	0.0247	0.0552	
0.0469	0.0048	0.0494	0.0405	0.0475	0.0272	0.0544	0.0173	0.0378	
0.0435	0.0032	0.0504	0.0347	0.0309	0.0293	0.049	0.0179	0.0502	
0.0879	0.0052	0.0994	0.0692	0.079	0.0532	0.0895	0.0352	0.1147	7.23
0.0893	0.0076	0.0967	0.0695	0.1662	0.0535	0.0962	0.0356	0.1217	7.33
0.0978	0.0084	0.103	0.0752	0.2306	0.0604	0.103	0.0436	0.1393	7.09
0.0769	0.0054	0.0789	0.0617	0.494	0.0427	0.0943	0.0344	0.0922	6.55
0.089	0.0082	0.0931	0.0691	0.2597	0.0553	0.0969	0.0355	0.1177	3.46
0.0865	0.0086	0.071	0.0907	0.067	0.0604	0.0925	0.0311	0.0783	3.23
0.0875	0.0073	0.0999	0.069	0.0687	0.0504	0.0932	0.0349	0.1227	3.07
0.0815	0.0048	0.0921	0.0641	0.0732	0.0493	0.083	0.0327	0.1063	7.84
0.0828	0.0073	0.0906	0.0648	0.1541	0.0496	0.0892	0.0331	0.1128	8.71
0.0907	0.0078	0.0956	0.0697	0.2138	0.056	0.0956	0.0405	0.1291	
0.0713	0.005	0.0731	0.0572	0.458	0.0396	0.0875	0.032	0.0855	
0.0825	0.0076	0.0863	0.064	0.2407	0.0513	0.0898	0.033	0.1091	
0.0802	0.008	0.0658	0.0841	0.0621	0.056	0.0857	0.0288	0.0726	
0.0811	0.0068	0.0927	0.0639	0.0637	0.0467	0.0864	0.0325	0.1138	
0.0507	0.0062	0.0611	0.0407	0.0333	0.0317	0.0583	0.023	0.0644	8.61
0.0566	0.0053	0.0698	0.0447	0.0311	0.0357	0.0687	0.0252	0.0736	9.58
0.0577	0.0047	0.0779	0.0459	0.0243	0.0374	0.0699	0.0253	0.0745	7.64
0.0586	0.0051	0.0749	0.0464	0.0271	0.0376	0.0708	0.0257	0.0761	8.52
0.0468	0.0041	0.0569	0.0372	0.0357	0.0304	0.0543	0.0213	0.0598	3.19
0.0553	0.0058	0.0601	0.0438	0.0386	0.0341	0.0681	0.0255	0.0717	8.61
0.0564	0.0044	0.0822	0.0453	0.0239	0.0368	0.069	0.0251	0.0722	9.58
0.0403	0.0031	0.0503	0.0327	0.036	0.0288	0.0437	0.0173	0.0486	7.64
0.0519	0.0054	0.063	0.0411	0.0362	0.0321	0.0639	0.0239	0.0673	8.52

0.0547	0.0042	0.0651	0.0429	0.0399	0.0343	0.0628	0.0256	0.0717	3.19
0.0452	0.0088	0.0547	0.0378	0.0238	0.0284	0.0478	0.0193	0.0538	3.29
0.0547	0.0052	0.0379	0.0732	0.0206	0.0295	0.0634	0.0253	0.0628	3.51
0.0471	0.0057	0.0568	0.0378	0.0311	0.0295	0.0542	0.0214	0.0599	
0.0526	0.0049	0.0649	0.0416	0.0289	0.0333	0.0639	0.0234	0.0684	
0.0536	0.0044	0.0725	0.0427	0.0226	0.0348	0.065	0.0235	0.0693	
0.0551	0.0047	0.0689	0.0435	0.0231	0.0355	0.0662	0.0238	0.0718	
0.0435	0.0038	0.0559	0.0345	0.0333	0.0282	0.0505	0.0198	0.0556	
0.0545	0.0047	0.0636	0.0432	0.0252	0.0349	0.0659	0.0239	0.0707	
0.0524	0.0041	0.0764	0.0421	0.0222	0.0342	0.0642	0.0233	0.0671	
0.0632	0.0053	0.0789	0.0498	0.0264	0.0407	0.0758	0.0273	0.0823	
0.0601	0.0047	0.0875	0.0483	0.0255	0.0392	0.0735	0.0267	0.0769	
0.0429	0.0033	0.0536	0.0347	0.0384	0.0307	0.0466	0.0184	0.0517	
0.0593	0.005	0.0741	0.0468	0.0248	0.0382	0.0712	0.0256	0.0773	
0.0583	0.0045	0.0623	0.0457	0.0425	0.0365	0.0669	0.0273	0.0763	
0.0481	0.0094	0.0583	0.0403	0.0254	0.0303	0.0509	0.0206	0.0573	
0.0583	0.0055	0.0404	0.078	0.0219	0.0314	0.0675	0.0269	0.0669	
0.0519	0.0048	0.0629	0.0403	0.0241	0.0323	0.062	0.0227	0.0663	

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