

Supplementary Table 12. Identification of putative origins of 80 yuzu single-copy genes

Contig	Code	Length (bp)	Length of aligned sequences (bp)	Number of SNPs among five species	Percent identity of SNP alleles between yuzu and other species				SNP genotype of yuzu						Number of SNPs between mandarin and Ichang papeda (Homo + Hetero)	Proportion of heterozygous SNPs between mandarin and Ichang papeda [Hetero/(Homo+Hetero)]	Putative origin
					Citron	Mandarin	Ichang papeda	Pummelo	Homozygous			Heterozygous					
									Yuzu-specific	Polymorphic between mandarin and Ichang papeda (Homo)	Others	Yuzu-specific	Polymorphic between mandarin and Ichang papeda (Hetero)	Others			
TRINITY_DN12606_c0_g1_i56	SCG01	4472	1538	41	82.9	97.6	95.1	46.3	0	3	29	0	8	1	11	0.73	Hybrid
TRINITY_DN4638_c0_g1_i2	SCG02	2298	927	26	76.9	96.2	88.5	96.2	0	4	7	6	9	0	13	0.69	Hybrid
TRINITY_DN5427_c0_g3_i1	SCG03	4437	500	9	88.9	100.0	100.0	77.8	0	0	3	2	4	0	4	1.00	Hybrid
TRINITY_DN7342_c0_g1_i1	SCG04	2686	1650	21	47.6	90.5	100.0	61.9	0	2	15	1	3	0	5	0.60	Hybrid
TRINITY_DN7763_c0_g1_i3	SCG05	946	279	12	66.7	100.0	100.0	91.7	0	0	5	2	3	2	3	1.00	Hybrid
TRINITY_DN5532_c0_g1_i17	SCG06	2932	751	22	N/A	45.5	100.0	45.5	0	12	2	6	1	1	13	0.08	Papeda
TRINITY_DN3081_c0_g1_i10	SCG07	1690	355	13	69.2	100.0	76.9	84.6	0	3	6	1	2	1	5	0.40	Mandarin
TRINITY_DN1420_c0_g1_i14	SCG08	2763	1154	26	73.1	100.0	84.6	53.8	0	4	15	1	6	0	10	0.60	Hybrid
TRINITY_DN1721_c0_g3_i2	SCG09	2033	959	17	76.5	94.1	94.1	82.4	0	2	6	3	6	0	8	0.75	Hybrid
TRINITY_DN40364_c0_g1_i1	SCG10	584	529	21	42.9	90.5	71.4	57.1	0	8	13	0	0	0	8	0.00	Mandarin
TRINITY_DN13975_c0_g1_i14	SCG12	5750	1841	35	77.1	97.1	94.3	80.0	0	3	15	2	15	0	18	0.83	Hybrid
TRINITY_DN2839_c0_g1_i10	SCG13	1666	481	16	87.5	75.0	81.3	87.5	0	7	4	2	2	1	9	0.22	Papeda
TRINITY_DN3782_c0_g1_i2	SCG14	1041	240	4	100.0	100.0	75.0	100.0	0	1	0	3	0	0	1	0.00	Mandarin
TRINITY_DN8900_c0_g1_i9	SCG15	1380	325	6	50.0	83.3	83.3	83.3	0	2	4	0	0	0	2	0.00	Not determined
TRINITY_DN5758_c0_g1_i9	SCG16	2468	791	21	28.6	95.2	95.2	47.6	0	2	15	2	1	1	3	0.33	Not determined
TRINITY_DN5705_c0_g1_i2	SCG17	1027	450	6	66.7	100.0	100.0	66.7	0	0	4	1	1	0	1	1.00	Hybrid
TRINITY_DN16444_c0_g1_i1	SCG18	929	516	19	84.2	84.2	94.7	94.7	0	4	4	7	1	3	5	0.20	Papeda
TRINITY_DN3262_c0_g1_i17	SCG19	1436	693	18	83.3	100.0	66.7	55.6	0	6	7	5	0	0	6	0.00	Mandarin
TRINITY_DN3191_c1_g2_i7	SCG21	3854	1752	46	45.7	89.1	52.2	58.7	0	25	14	2	3	2	28	0.11	Mandarin
TRINITY_DN3572_c0_g1_i50	SCG22	2523	806	8	75.0	87.5	75.0	75.0	0	3	3	1	1	0	4	0.25	Mandarin
TRINITY_DN1887_c0_g1_i15	SCG23	2767	782	16	62.5	100.0	93.8	75.0	0	1	9	1	5	0	6	0.83	Hybrid
TRINITY_DN14304_c0_g1_i21	SCG24	2441	564	11	45.5	90.9	81.8	81.8	0	1	6	2	2	0	3	0.67	Hybrid
TRINITY_DN18760_c0_g1_i11	SCG26	1683	714	22	86.4	90.9	86.4	86.4	0	5	6	3	8	0	13	0.62	Hybrid
TRINITY_DN7773_c0_g1_i22	SCG27	1840	1422	50	44.0	88.0	94.0	98.0	0	8	30	7	3	2	11	0.27	Pummelo
TRINITY_DN6436_c0_g1_i1	SCG29	1751	1065	21	66.7	100.0	85.7	71.4	0	3	11	2	4	1	7	0.57	Hybrid
TRINITY_DN6359_c0_g1_i3	SCG30	1000	366	7	42.9	100.0	85.7	100.0	0	1	4	0	1	1	2	0.50	Not determined
TRINITY_DN7123_c0_g1_i10	SCG31	2382	461	9	66.7	100.0	100.0	88.9	0	0	4	0	5	0	5	1.00	Hybrid
TRINITY_DN1925_c0_g1_i4	SCG32	1429	465	16	68.8	100.0	93.8	75.0	0	1	9	1	5	0	6	0.83	Hybrid
TRINITY_DN7245_c0_g1_i12	SCG33	1499	365	5	40.0	80.0	100.0	100.0	0	1	3	1	0	0	1	0.00	Papeda
TRINITY_DN5054_c0_g1_i1	SCG34	1680	976	20	70.0	95.0	85.0	90.0	0	4	8	1	7	0	11	0.64	Hybrid
TRINITY_DN1135_c0_g1_i27	SCG35	2536	216	5	60.0	100.0	100.0	100.0	0	0	2	0	3	0	3	1.00	Hybrid
TRINITY_DN6983_c0_g1_i29	SCG36	4957	2133	25	56.0	100.0	96.0	68.0	0	1	18	5	1	0	2	0.50	Not determined
TRINITY_DN8526_c0_g2_i8	SCG37	3359	1859	57	80.7	96.5	100.0	94.7	0	2	12	6	37	0	39	0.95	Hybrid
TRINITY_DN17000_c1_g1_i13	SCG38	1613	307	8	N/A	100.0	75.0	25.0	0	2	6	0	0	0	2	0.00	Mandarin
TRINITY_DN47985_c0_g1_i1	SCG39	651	386	15	60.0	53.3	100.0	66.7	0	7	8	0	0	0	7	0.00	Papeda
TRINITY_DN1822_c0_g1_i16	SCG43	3800	2290	48	64.6	89.6	93.8	83.3	0	7	24	9	8	0	15	0.53	Hybrid
TRINITY_DN10110_c0_g1_i10	SCG44	2990	1500	42	90.5	90.5	90.5	69.0	0	8	17	4	13	0	21	0.62	Hybrid
TRINITY_DN4070_c0_g1_i2	SCG45	3861	1632	48	68.8	93.8	93.8	54.2	0	6	35	6	1	0	7	0.14	Not determined
TRINITY_DN6301_c0_g1_i1	SCG46	2612	2037	36	58.3	100.0	86.1	69.4	0	5	21	3	6	1	11	0.55	Hybrid
TRINITY_DN3931_c0_g1_i29	SCG47	3783	579	14	78.6	100.0	92.9	92.9	0	1	2	1	10	0	11	0.91	Hybrid
TRINITY_DN19746_c0_g1_i5	SCG48	3058	837	18	94.4	94.4	50.0	94.4	0	8	3	5	2	0	10	0.20	Mandarin
TRINITY_DN7977_c0_g1_i7	SCG49	2294	618	14	57.1	100.0	100.0	92.9	0	0	7	3	3	1	3	1.00	Hybrid
TRINITY_DN7143_c0_g1_i17	SCG51	3363	1116	25	72.0	96.0	96.0	72.0	0	2	14	2	6	1	8	0.75	Hybrid
TRINITY_DN9351_c0_g1_i5	SCG52	1888	450	9	33.3	88.9	88.9	100.0	0	2	5	1	1	0	3	0.33	Pummelo
TRINITY_DN6128_c0_g1_i39	SCG53	2842	1221	27	85.2	92.6	92.6	77.8	0	4	10	4	5	4	9	0.56	Hybrid
TRINITY_DN7800_c0_g1_i1	SCG54	1167	412	12	66.7	83.3	75.0	83.3	0	5	6	1	0	0	5	0.00	Mandarin
TRINITY_DN22029_c0_g1_i1	SCG55	696	696	11	81.8	90.9	72.7	90.9	0	4	3	0	3	1	7	0.43	Mandarin
TRINITY_DN7156_c0_g1_i9	SCG57	2621	766	19	89.5	94.7	89.5	94.7	0	2	4	4	9	0	11	0.82	Hybrid
TRINITY_DN4720_c0_g1_i10	SCG58	3278	813	15	86.7	100.0	93.3	80.0	0	1	5	5	4	0	5	0.80	Hybrid
TRINITY_DN5761_c0_g1_i3	SCG59	2571	603	20	65.0	80.0	95.0	65.0	0	5	6	3	6	0	11	0.55	Hybrid
TRINITY_DN14888_c0_g1_i1	SCG61	737	501	20	95.0	100.0	90.0	80.0	0	2	3	4	10	1	12	0.83	Hybrid
TRINITY_DN13517_c0_g1_i4	SCG62	1802	751	24	79.2	95.8	79.2	83.3	0	6	9	3	1	5	7	0.14	Mandarin
TRINITY_DN4616_c0_g1_i1	SCG63	1431	523	9	77.8	88.9	88.9	100.0	0	2	1	2	3	1	5	0.60	Hybrid
TRINITY_DN17836_c0_g1_i3	SCG64	990	268	4	50.0	75.0	100.0	75.0	0	1	3	0	0	0	1	0.00	Papeda
TRINITY_DN15318_c0_g1_i1	SCG65	1255	429	12	83.3	100.0	100.0	83.3	0	0	4	0	8	0	8	1.00	Hybrid
TRINITY_DN6624_c0_g1_i42	SCG66	2387	1215	38	71.1	100.0	55.3	76.3	0	17	15	3	3	0	20	0.15	Mandarin
TRINITY_DN3935_c0_g1_i7	SCG67	1190	510	8	N/A	87.5	100.0	62.5	0	1	3	2	2	0	3	0.67	Hybrid
TRINITY_DN5174_c0_g1_i11	SCG68	2214	1089	22	68.2	90.9	90.9	86.4	0	4	7	3	7	1	11	0.64	Hybrid
TRINITY_DN6144_c0_g1_i4	SCG69	2406	807	17	64.7	94.1	58.8	70.6	0	8	7	1	1	0	9	0.11	Mandarin
TRINITY_DN2323_c0_g1_i1	SCG70	2032	677	13	84.6	61.5	84.6	84.6	0	7	1	5	0	0	7	0.00	Papeda
TRINITY_DN8249_c0_g1_i36	SCG71	2591	865	20	85.0	100.0	90.0	95.0	0	2	4	6	8	0	10	0.80	Hybrid
TRINITY_DN9280_c0_g1_i3	SCG72	1379	609	18	72.2	94.4	94.4	44.4	0	2	10	1	5	0	7	0.71	Hybrid
TRINITY_DN7605_c0_g1_i15	SCG73	2958	943	50	18.0	20.0	24.0	92.0	0	8	41	1	0	0	8	0.00	Pummelo
TRINITY_DN1475_c0_g2_i1	SCG74	3613	212	6	66.7	100.0	83.3	83.3	0	1	3	1	1	0	2	0.50	Not determined
TRINITY_DN9700_c0_g1_i8	SCG75	1279	875	25	80.0	96.0	96.0	96.0	0	2	6	9	8	0	10	0.80	Hybrid
TRINITY_DN6802_c0_g1_i2	SCG76	2610	951	29	79.3	79.3	93.1	79.3	0	8	11	3	7	0	15	0.47	Papeda
TRINITY_DN13950_c0_g1_i1	SCG77	773	375	7	57.1	100.0	100.0	100.0	0	0	3	1	3	0	3	1.00	Hybrid
TRINITY_DN590_c0_g1_i15	SCG78	3361	823	16	75.0	93.8	93.8	62.5	0	2	10	0	4	0	6	0.67	Hybrid
TRINITY_DN11127_c0_g1_i37	SCG79	2722	583	17	58.8	82.4	94.1	82.4	0	4	9	2	1	1	5	0.20	Papeda
TRINITY_DN1708_c0_g1_i13	SCG80	2305	617	12	58.3	66.7	91.7	83.3	0	5	5	1	1	0	6	0.17	Papeda
TRINITY_DN12387_c0_g1_i35	SCG81	3358	945	15	80.0	93.3	93.3	80.0	0	2	6	1	6	0	8	0.75	Hybrid
TRINITY_DN10351_c0_g1_i4	SCG82	2993	2027	35	65.7	80.0	91.4	88.6	0	10	16	8	1	0	11	0.09	Papeda
TRINITY_DN9041_c0_g1_i1	SCG84	7124	5229	61	77.0	95.1	98.4	77.0	0	4	26	2	29	0	33	0.88	Hybrid
TRINITY_DN3631_c0_g1_i3	SCG85	1498	343	6	66.7	100.0	100.0	100.0	0	0	2	1	2	1	2	1.00	Hybrid
TRINITY_DN7534_c0_g2_i5	SCG86	1962	463	9	66.7	100.0	100.0	77.8	0	0	5	1	3	0	3	1.00	Hybrid
TRINITY_DN2854_c0_g2_i2	SCG87	1800	348	6	100.0	83.3	83.3	83.3	0	2	1	1	1	1	3	0.33	Citron
TRINITY_DN6458_c0_g1_i5	SCG88	3614	1029	31	90.3	100.0	54.8	74.2	0	14	10	4	3	0	17	0.18	Mandarin
TRINITY_DN529_c																	