

Appendix

Appendix A

Appendix A-1 Allele sizes of 42 common wild rice populations of 12 microsatellite loci

Population	RM1	RM206	RM109	RM247	RM211	RM477	RM251	RM234	RM259	RM133	RM316	RM481
UN1	84/108	135/141	85/107	129/129	141/147	218/218	113/129	144/144	152/162	227/233	197/197	111/123
	86/110	141/157	85/85	129/137	141/147	218/218	113/129	142/142	152/162	233/233	197/197	108/120
	92/92	141/141	73/93	129/139	143/155	218/218	115/115	140/140	152/154	229/239	197/209	108/123
	84/110	141/157	73/93	143/143	141/147	218/218	113/129	144/144	152/162	233/233	197/197	108/120
	94/108	141/141	85/85	143/143	141/143	218/218	115/115	142/152	152/170	229/233	197/197	123/123
	84/110	141/157	111/111	125/125	141/147	218/218	113/129	144/144	152/162	233/233	197/197	120/198
	94/108	135/141	83/93	131/131	141/143	218/218	115/115	142/166	152/170	229/233	197/197	123/123
	108/108	135/135	87/97	129/151	143/143	218/218	113/137	142/142	152/154	227/233	197/197	123/123
	84/110	141/157	85/107	129/129	143/143	218/218	115/139	142/146	152/152	225/225	197/197	126/126
	108/116	141/141	85/85	117/127	141/141	218/222	115/115	142/142	152/152	225/225	197/197	198/198
UN2	72/72	143/143	75/83	127/131	141/141	218/218	103/123	140/140	152/168	231/231	203/209	129/135
	74/80	131/143	75/75	129/129	135/141	218/222	103/103	138/138	152/154	229/229	201/217	129/135
	72/84	133/133	75/75	127/133	141/143	218/222	127/143	138/138	152/146	227/235	201/209	120/129
	72/94	133/133	77/91	125/131	143/143	218/218	105/125	140/140	152/150	227/235	209/209	120/129
	72/72	143/143	75/93	129/129	141/141	218/218	103/103	128/140	152/150	231/231	209/209	120/129
	74/80	133/143	75/75	131/131	135/141	218/222	103/103	138/138	152/154	231/231	201/217	108/108
	72/86	133/143	87/103	129/139	141/143	218/222	103/103	128/142	152/154	227/231	203/219	120/129
	72/86	133/143	87/103	129/137	141/143	218/222	103/103	128/142	152/182	227/235	203/219	120/129
	72/86	143/143	87/103	131/139	141/143	218/222	103/131	128/142	152/182	227/235	203/219	120/129
	74/94	145/145	75/105	129/137	135/135	218/218	115/143	142/142	152/192	227/235	203/209	108/120
UN3	92/100	129/129	91/91	131/137	143/143	218/218	109/113	150/150	152/154	229/229	197/217	108/135
	102/102	129/133	91/91	131/131	143/143	222/222	111/111	150/150	152/190	229/229	197/217	108/135
	102/102	129/129	91/93	131/137	143/143	222/222	111/113	150/150	152/194	231/231	203/217	108/135
	88/126	151/161	83/93	135/149	141/151	218/222	111/131	148/152	152/154	227/227	165/173	129/135
	112/126	129/129	83/93	131/135	141/151	218/218	111/111	148/152	152/190	229/229	199/205	129/135
	88/126	151/161	83/93	135/149	141/151	218/222	111/131	148/152	152/154	227/227	199/215	129/135
	88/94	129/129	93/93	131/135	143/151	218/218	113/145	150/152	152/190	227/227	205/215	108/135
	88/112	125/129	93/93	131/135	151/151	218/218	111/113	140/152	152/190	227/229	165/173	135/135
	88/112	129/129	83/83	131/135	141/151	218/218	111/111	140/152	152/190	227/227	199/205	135/135
	88/112	125/129	93/93	131/135	151/151	218/218	111/113	140/152	152/190	225/227	197/205	135/165
UN4	78/84	129/141	89/95	129/129	143/143	218/218	115/115	140/142	152/148	227/239	199/203	108/120
	74/74	123/129	95/107	129/137	143/143	218/218	115/129	140/142	152/148	239/239	199/209	108/120
	78/78	123/141	95/115	123/123	141/143	218/222	115/115	130/140	152/158	239/239	199/203	108/126
	78/78	123/141	95/115	123/123	141/143	218/222	115/115	130/140	152/158	239/239	199/203	108/126
	72/94	123/141	73/73	123/123	153/153	218/222	115/115	144/144	152/184	239/239	203/209	108/126
	78/78	131/131	97/97	123/123	153/153	218/222	115/157	144/144	152/184	229/237	203/209	108/126
	76/92	123/129	83/83	123/123	147/153	218/218	115/157	142/142	152/148	229/237	199/209	108/126

Population	RM1	RM206	RM109	RM247	RM211	RM477	RM251	RM234	RM259	RM133	RM316	RM481
UN4	72/72	131/131	83/83	123/129	141/141	218/218	115/129	144/144	152/162	239/239	199/209	210/210
	72/90	123/143	95/107	129/137	141/141	218/218	115/129	142/142	152/162	239/239	205/209	210/210
	72/72	159/159	95/95	129/131	153/153	218/218	115/115	130/130	152/160	227/237	199/201	210/210
UN5	74/108	151/155	73/87	137/139	143/161	218/218	111/145	138/158	152/186	229/231	199/209	126/132
	74/108	151/155	73/87	137/139	143/161	218/218	111/145	138/158	152/186	229/231	175/189	126/132
	74/108	151/155	73/87	137/139	143/161	218/218	111/145	138/160	152/186	229/231	199/209	126/132
	76/110	151/151	83/91	123/139	141/143	218/218	113/115	144/152	152/154	225/229	205/209	126/132
	78/110	151/151	83/91	123/139	141/143	218/218	113/115	144/152	152/154	227/231	205/209	126/129
	76/110	151/151	83/91	123/139	141/143	218/218	113/115	144/152	152/154	225/229	205/209	126/129
	72/108	151/155	73/87	137/139	143/161	218/218	111/145	138/158	152/186	229/231	199/209	126/132
	78/110	151/151	83/83	123/139	141/143	218/218	113/115	140/144	152/154	227/239	205/209	108/120
	78/110	151/151	83/83	123/139	141/143	218/218	113/115	140/144	152/154	227/239	205/209	108/120
	78/78	151/151	83/95	131/131	141/147	218/218	115/115	142/142	152/162	229/229	209/209	126/207
LN1	84/104	129/129	83/83	131/135	143/143	218/218	113/113	136/142	152/160	225/231	201/213	126/126
	74/86	129/129	83/83	143/143	141/141	218/218	113/113	140/144	152/162	227/231	201/213	126/126
	84/104	129/129	85/85	123/123	143/143	218/218	113/113	136/144	152/162	227/233	201/211	126/126
	86/90	169/169	113/113	125/125	141/141	218/218	113/113	140/140	152/148	227/227	205/219	126/132
	92/92	129/147	83/91	131/137	143/143	218/218	111/113	140/140	152/164	229/229	203/203	126/126
	92/94	129/133	83/83	125/129	143/143	218/222	109/129	140/148	152/166	231/231	199/199	126/126
	86/90	169/169	107/107	129/129	141/141	218/218	113/113	140/140	152/148	227/227	205/219	126/132
	86/90	169/169	83/83	129/135	141/141	212/212	113/113	140/140	152/148	225/225	205/219	126/132
	86/90	169/169	73/93	129/139	141/141	212/212	113/113	140/140	152/148	227/227	205/219	126/132
	86/90	169/169	73/93	129/139	141/141	212/212	113/113	140/140	152/148	227/227	205/219	126/132
LN2	76/96	131/135	93/97	129/131	143/143	218/222	105/131	140/150	152/180	227/237	211/211	126/210
	82/94	133/135	85/93	135/137	143/145	218/218	109/111	152/174	152/184	231/243	215/217	126/132
	84/84	133/133	87/95	129/133	151/153	218/218	103/103	140/142	152/186	231/231	197/207	126/132
	74/96	131/135	93/97	129/131	143/143	218/222	105/131	140/150	152/180	225/225	211/211	126/126
	84/94	129/133	83/95	129/129	143/145	218/218	105/105	140/142	152/156	231/239	203/209	126/126
	86/124	133/147	93/97	129/133	143/147	218/222	115/131	140/174	152/166	237/237	197/211	120/126
	84/84	129/147	83/85	129/129	141/143	218/218	113/115	136/140	152/180	237/237	203/211	138/138
	86/86	133/147	93/97	129/133	143/147	218/222	115/131	140/174	152/166	237/237	197/211	120/126
	86/86	129/129	85/95	129/133	141/143	218/218	105/131	134/140	152/166	225/229	207/209	120/126
	86/86	129/129	85/95	129/133	141/143	218/218	105/131	134/140	152/166	227/231	207/209	120/126
LN3	114/114	129/133	97/101	127/129	143/147	218/218	113/115	140/142	152/164	229/229	203/203	108/108
	88/104	129/133	95/99	129/129	143/143	218/218	133/133	140/142	152/158	227/227	197/197	120/126
	80/94	155/155	87/97	129/139	145/161	218/218	105/145	140/156	152/162	229/233	197/209	126/132
	88/104	129/133	95/99	129/129	143/143	218/218	109/133	140/140	152/162	227/227	197/197	120/126
	88/104	129/133	95/99	129/129	143/143	218/218	133/133	140/142	152/158	227/227	197/197	120/126
	88/108	129/131	91/95	129/131	141/143	218/218	113/127	140/142	152/162	231/237	203/203	120/138
	88/108	129/133	95/97	129/129	143/143	218/218	113/115	144/150	152/152	227/237	207/215	126/135
	90/90	129/129	95/95	129/129	143/147	218/218	113/129	140/148	152/158	225/227	203/209	126/132
	90/90	129/129	95/95	129/129	143/147	218/218	113/129	140/148	152/158	225/227	203/209	126/132
	90/90	129/129	83/95	129/153	143/147	218/218	113/115	140/148	152/160	225/229	201/203	126/162
LN4	102/102	129/129	83/83	129/129	143/143	218/218	105/105	144/144	152/152	227/227	171/195	132/198
	78/78	129/129	83/83	129/129	143/143	218/218	105/105	144/144	152/152	227/227	171/195	132/198

Population	RM1	RM206	RM109	RM247	RM211	RM477	RM251	RM234	RM259	RM133	RM316	RM481
LN4	78/78	129/129	83/83	129/129	143/143	218/218	115/115	150/150	152/150	227/227	199/199	108/132
	102/102	125/125	85/85	129/129	143/145	218/218	115/115	132/132	152/150	227/227	201/201	108/132
	102/102	129/129	83/83	129/129	145/145	218/218	115/115	144/144	152/154	225/225	195/195	108/132
	106/106	125/125	85/85	129/129	145/145	218/218	137/137	132/132	152/154	225/225	195/195	108/132
	102/102	129/129	85/85	125/125	145/145	218/218	115/115	150/150	152/150	225/225	199/199	195/195
	102/102	129/129	85/85	125/125	139/139	218/218	115/115	150/150	152/150	227/227	199/199	195/195
	106/106	129/129	85/85	129/129	139/139	218/218	109/109	132/132	152/150	225/225	195/195	195/195
	104/104	129/129	85/85	125/125	141/141	218/218	115/115	150/150	152/150	225/225	199/199	132/198
LN5	106/106	123/123	87/91	135/139	161/161	218/218	111/113	140/142	152/162	225/225	201/209	126/126
	84/108	129/129	87/95	135/139	151/153	218/218	113/115	140/142	152/162	227/227	201/205	126/144
	86/86	129/129	91/99	137/151	143/153	218/218	105/115	140/142	152/172	227/229	201/201	108/126
	74/104	129/129	97/99	135/151	143/153	218/218	105/131	140/174	152/164	227/237	201/205	126/141
	88/88	129/129	95/95	133/133	143/143	218/218	115/115	152/152	152/168	227/229	197/197	120/126
	88/106	133/133	73/73	129/151	141/141	218/218	113/143	134/140	152/164	239/239	197/197	126/138
	88/104	123/129	97/97	135/137	141/141	218/222	115/115	142/144	152/170	227/237	201/201	126/126
	88/88	129/129	95/95	133/133	143/143	218/218	105/115	142/144	152/170	227/229	201/209	120/126
	86/86	155/155	99/105	137/151	143/153	218/218	105/115	140/142	152/162	227/227	165/201	126/126
	84/108	129/129	87/95	135/139	143/153	218/218	115/115	140/142	152/162	229/237	201/205	126/126
CT1	86/86	129/151	75/97	129/135	143/147	218/218	113/115	142/142	152/140	229/229	197/199	132/132
	86/116	129/151	75/97	129/135	143/147	218/218	113/115	134/142	152/140	229/229	197/199	132/132
	86/116	129/151	75/97	129/135	143/147	218/218	113/115	142/142	152/142	229/229	197/199	132/198
	86/116	129/151	75/97	129/135	143/147	218/218	113/115	142/142	152/140	229/229	199/199	132/198
	86/86	129/151	75/97	129/135	143/147	218/218	113/115	142/142	152/142	229/229	197/199	198/198
	86/116	129/151	75/97	129/135	143/147	218/218	113/115	134/142	152/140	229/229	197/199	132/132
	86/86	129/151	75/97	129/135	143/147	218/218	113/115	142/142	152/142	229/229	199/199	132/198
	86/116	129/151	75/97	129/135	143/147	218/218	113/115	142/142	152/142	229/229	197/199	132/198
	106/110	127/157	85/105	129/151	143/147	218/218	103/135	144/144	152/150	237/237	201/209	132/132
	86/116	129/151	75/97	129/135	143/147	218/218	113/115	142/142	152/140	229/229	199/199	132/198
CT2	90/90	151/151	91/95	131/153	141/143	218/218	105/105	138/138	152/154	229/239	209/219	120/132
	90/102	129/129	91/95	131/131	141/143	218/218	105/105	146/154	152/154	237/237	185/197	120/132
	106/120	129/129	95/99	129/135	141/147	218/218	111/115	146/150	152/152	227/231	197/209	141/141
	90/106	149/177	95/95	135/139	141/141	218/218	105/115	132/138	152/154	237/237	141/199	141/141
	90/102	179/179	91/91	131/139	141/145	218/218	105/127	148/170	152/156	239/239	197/209	120/135
	78/78	123/125	91/99	129/131	143/153	218/218	105/115	142/156	152/162	231/239	197/207	108/120
	88/90	149/151	95/99	129/139	141/145	218/218	105/115	144/170	152/154	231/239	199/219	120/141
	106/112	127/127	99/99	131/139	143/153	218/218	105/141	130/146	152/162	231/233	205/207	135/135
	88/90	129/147	83/83	129/131	141/141	218/218	111/127	156/158	152/164	225/227	197/205	123/195
	106/112	135/137	99/99	131/139	143/153	218/218	105/141	130/146	152/152	227/235	205/207	135/135
CT3	76/76	151/151	75/83	131/131	141/147	218/218	113/117	144/154	152/154	229/229	197/197	126/138
	76/90	141/141	83/97	131/131	141/147	218/218	105/121	134/142	152/196	225/229	197/199	123/126
	76/76	163/163	91/107	125/131	147/147	218/218	115/117	130/132	152/166	231/231	199/209	108/120
	76/80	141/173	83/93	131/131	141/147	218/218	105/127	130/142	152/156	231/231	197/215	123/132
	78/102	143/173	91/93	125/131	141/153	218/218	117/137	142/146	152/156	231/231	197/201	108/123
	76/112	143/173	91/91	125/131	141/153	218/218	117/137	142/146	152/156	225/225	197/201	108/123
	110/110	151/151	109/109	131/131	143/143	218/218	105/105	132/132	152/160	229/229	197/209	123/132

Population	RM1	RM206	RM109	RM247	RM211	RM477	RM251	RM234	RM259	RM133	RM316	RM481
CT3	76/76	151/151	83/83	125/139	141/147	218/218	103/103	144/144	152/154	229/229	197/197	132/135
	78/78	159/159	91/91	125/139	141/147	218/218	127/127	154/156	152/156	231/231	209/209	132/135
	74/76	151/151	83/83	131/131	141/147	218/218	113/117	144/154	152/154	229/229	197/197	198/198
CT4	76/78	155/155	85/85	131/135	141/141	212/212	113/113	154/156	152/154	229/229	195/195	108/195
	86/106	163/163	85/85	131/135	141/141	212/212	103/111	158/158	152/154	225/227	207/207	192/207
	72/114	183/183	83/91	135/139	141/161	218/218	111/127	146/156	152/162	227/229	147/197	198/198
	70/106	183/183	91/93	117/135	141/141	212/218	103/127	148/154	152/154	225/227	195/207	141/141
	106/108	129/141	83/85	135/135	141/141	218/218	125/127	144/166	152/166	227/227	151/197	150/198
	108/108	129/141	73/87	117/151	141/141	212/218	111/127	158/158	152/160	227/227	197/207	150/150
	108/112	129/141	85/85	117/135	141/141	218/218	113/125	146/146	152/156	229/231	197/207	150/150
	106/108	127/151	83/85	135/135	133/141	218/218	125/127	146/166	152/166	227/227	151/197	150/198
	102/108	149/149	73/85	135/139	141/141	212/218	103/111	144/146	152/154	227/227	207/207	207/207
	108/114	149/149	87/87	117/139	141/145	218/218	117/127	146/150	152/160	225/227	197/207	150/150
CT5	86/112	125/129	97/97	131/131	143/147	218/218	105/137	144/150	152/160	227/237	195/195	132/132
	86/112	125/129	83/83	125/129	143/147	218/222	105/137	144/150	152/162	229/237	195/195	132/132
	86/112	125/129	85/107	129/131	143/147	218/218	105/145	144/150	152/160	227/237	195/195	132/195
	88/88	127/129	85/85	127/127	141/141	218/222	113/113	146/146	152/154	227/237	205/209	123/123
	86/112	125/129	83/83	129/129	143/147	218/218	105/137	144/150	152/160	227/237	195/195	132/132
	86/112	125/129	83/83	131/139	143/147	218/222	105/137	144/150	152/160	229/237	195/195	132/132
	86/112	125/129	87/87	135/135	143/147	218/218	105/137	144/150	152/148	229/237	195/197	195/195
	86/112	125/129	85/85	131/131	143/147	218/218	105/105	160/160	152/160	227/237	195/195	195/195
	124/124	125/129	85/97	129/129	143/147	218/218	105/137	144/150	152/160	227/237	195/195	132/132
	86/112	125/129	83/83	125/129	143/147	218/218	105/137	146/152	152/162	229/237	195/195	132/132
CT6	104/112	129/145	87/87	133/133	145/145	218/218	103/103	144/148	152/158	227/227	207/207	126/132
	104/112	129/145	85/85	131/131	145/145	218/218	119/137	144/148	152/158	225/225	207/207	126/132
	104/112	129/145	83/83	131/131	145/145	218/218	119/137	144/148	152/158	225/225	207/207	126/132
	90/112	129/129	73/83	125/129	145/145	218/222	115/137	142/148	152/158	225/225	201/201	132/132
	90/110	127/145	95/95	125/131	145/147	218/218	103/145	144/144	152/160	229/229	197/201	132/132
	104/112	129/145	73/85	127/127	145/145	208/218	119/119	144/148	152/158	225/225	207/207	126/132
	90/112	129/129	73/93	129/139	145/145	218/218	115/137	142/148	152/158	225/231	201/201	132/144
	104/112	129/145	83/83	143/143	145/145	218/218	119/137	144/148	152/158	225/225	209/209	132/144
	104/112	129/145	85/85	137/137	145/145	218/218	103/119	144/148	152/158	225/225	207/207	126/132
	104/112	129/145	85/85	131/131	145/145	218/218	119/137	144/148	152/158	227/227	207/207	126/132
CT7	76/76	131/131	73/83	129/129	143/143	218/218	103/121	134/134	152/142	227/231	197/197	108/108
	76/76	131/131	87/97	129/151	143/143	218/218	103/103	136/136	152/142	231/231	197/197	108/138
	76/76	131/131	83/83	125/129	143/143	218/222	103/103	136/136	152/142	231/231	197/197	108/108
	78/78	131/131	85/97	129/129	143/143	218/218	103/103	138/138	152/180	227/227	197/197	108/138
	78/78	131/131	83/93	129/129	143/143	218/218	121/121	140/140	152/154	227/227	197/197	138/138
	78/78	131/131	83/83	129/129	143/143	218/218	121/121	132/132	152/184	227/227	197/197	111/111
	78/78	131/131	87/87	135/135	143/143	218/218	121/121	134/134	152/132	227/227	197/197	144/198
	76/76	131/131	113/113	125/125	143/143	218/218	103/103	136/136	152/142	231/231	197/197	108/138
	76/92	131/131	83/91	131/131	143/143	218/218	103/103	136/136	152/142	227/231	197/197	108/138
	76/76	131/131	87/97	129/151	143/143	218/218	103/107	136/136	152/142	231/231	197/197	108/138
CT8	74/74	161/161	87/87	135/135	155/155	218/218	111/111	156/156	152/158	227/227	205/205	153/207
	74/74	145/145	85/85	131/131	155/161	218/218	111/113	156/156	152/156	227/227	205/205	132/156

Population	RM1	RM206	RM109	RM247	RM211	RM477	RM251	RM234	RM259	RM133	RM316	RM481
CT8	74/74	137/137	83/91	123/131	155/155	218/222	113/113	132/132	152/156	227/227	205/205	153/153
	90/90	139/139	87/97	129/151	157/161	218/218	113/113	126/134	152/148	231/231	205/205	108/129
	74/84	155/155	83/83	125/129	147/147	218/222	113/113	154/154	152/154	229/229	197/197	198/198
	90/110	143/155	85/97	117/127	141/161	218/218	99/141	146/156	152/154	227/227	205/205	132/147
	110/110	155/155	83/83	129/135	161/161	218/218	99/99	154/154	152/158	227/227	205/205	108/135
	88/88	145/145	83/83	143/143	143/143	218/218	99/99	154/154	152/164	229/229	203/203	144/144
	90/90	137/157	85/85	135/135	159/159	218/218	99/99	146/146	152/156	229/229	205/205	138/207
	90/90	143/153	111/111	125/125	143/159	218/218	113/113	154/154	152/148	229/229	205/205	132/132
CT9	86/86	147/147	107/107	129/129	141/145	218/218	129/129	146/146	152/158	227/227	199/207	123/123
	72/86	131/153	83/97	127/127	141/143	218/218	115/141	144/144	152/158	229/229	207/207	108/123
	72/86	147/159	83/83	133/137	141/147	218/218	103/111	146/152	152/158	229/239	207/207	126/126
	72/72	127/131	77/111	131/131	143/143	218/222	103/105	132/148	152/174	227/231	201/201	123/141
	72/72	131/141	83/83	123/123	141/143	218/218	111/113	140/146	152/180	227/231	201/201	135/141
	72/72	131/141	83/91	129/129	149/159	218/218	105/117	146/152	152/166	227/239	199/215	126/141
	72/72	131/137	97/97	131/131	141/159	218/218	93/93	146/154	152/160	227/227	217/217	108/123
	86/106	147/147	95/95	129/129	141/141	218/218	103/103	144/148	152/164	227/229	199/215	123/123
	86/118	137/147	107/107	129/129	141/141	218/218	111/115	146/146	152/164	227/227	207/217	123/123
	86/86	131/145	83/95	127/127	143/143	218/218	105/113	130/144	152/174	227/227	201/207	132/132
NE1	80/82	179/179	93/93	133/133	155/155	218/218	121/121	138/138	152/170	227/227	199/199	198/198
	70/70	181/181	93/93	133/133	155/155	218/218	121/121	138/138	152/170	225/227	149/153	198/198
	70/70	161/181	101/101	141/141	155/155	218/218	111/111	140/140	152/156	225/233	175/201	120/132
	80/80	161/179	89/89	135/135	155/155	218/218	119/119	136/136	152/136	225/227	199/199	135/198
	80/82	179/181	93/93	133/133	155/155	218/218	121/121	138/140	152/170	225/227	199/199	144/198
	80/80	177/179	93/93	133/133	155/155	218/218	121/121	138/138	152/170	225/225	199/199	144/198
	80/80	179/179	93/93	133/133	155/155	218/218	121/121	138/138	152/170	225/227	141/141	147/222
	80/82	179/179	89/89	135/135	155/155	218/218	119/119	136/136	152/188	225/227	199/199	111/135
	80/80	149/149	115/115	115/115	155/155	218/218	119/119	136/136	152/188	225/227	199/199	111/135
	70/70	175/175	101/101	141/141	155/155	218/218	111/111	140/140	152/156	227/227	175/201	132/132
NE2	80/82	175/175	95/95	135/135	151/151	218/218	115/115	174/174	152/152	227/227	207/215	126/183
	80/82	175/175	95/95	135/135	153/153	218/218	115/115	174/174	152/174	225/227	201/201	108/201
	80/82	175/175	95/95	135/135	153/153	218/218	115/115	174/174	152/174	225/227	201/201	108/201
	72/82	131/147	83/99	131/135	147/147	212/218	103/111	132/138	152/168	227/231	207/215	126/207
	72/82	131/147	83/99	131/135	147/147	212/218	103/111	132/138	152/168	227/231	207/215	126/183
	72/82	131/147	83/99	131/135	147/147	212/218	103/111	132/138	152/168	227/231	207/215	126/183
	98/100	159/159	83/83	143/143	153/155	218/218	115/115	154/154	152/154	225/225	203/203	204/204
	98/100	159/159	83/83	143/143	153/155	218/218	115/115	154/154	152/154	225/225	203/203	204/204
	98/100	159/159	83/83	143/143	153/155	218/218	115/115	154/154	152/152	225/225	203/203	204/204
	98/100	159/159	83/83	143/143	153/155	218/218	115/115	154/154	152/152	225/225	203/203	204/204
NE3	70/72	129/151	83/83	135/135	141/141	218/218	103/103	142/154	152/166	237/237	197/209	144/165
	72/92	127/127	83/109	127/129	141/141	218/218	103/109	142/144	152/168	231/233	209/215	108/108
	70/92	135/137	83/109	127/129	141/141	218/218	103/109	142/144	152/150	227/235	209/215	150/222
	70/72	129/147	83/83	135/135	141/141	218/218	103/103	142/154	152/166	225/227	197/209	144/165
	72/94	133/147	83/83	127/127	141/141	218/218	103/115	152/154	152/166	227/231	169/209	210/210
	70/72	129/147	73/83	131/135	141/153	218/218	103/123	154/162	152/166	225/227	201/209	108/108
	96/98	139/139	85/85	131/131	153/153	218/218	171/171	144/146	152/154	225/227	201/209	108/108

Population	RM1	RM206	RM109	RM247	RM211	RM477	RM251	RM234	RM259	RM133	RM316	RM481
NE3	98/98	139/139	83/83	131/131	153/153	218/218	171/171	144/146	152/154	225/227	163/197	111/111
	98/98	139/139	85/85	131/131	153/153	218/218	171/171	146/146	152/154	225/227	163/197	111/111
	98/98	139/139	85/85	131/131	153/153	218/218	171/171	144/146	152/154	225/227	163/197	111/111
NE4	68/68	143/143	83/83	135/135	153/153	218/218	117/117	146/148	152/146	225/227	199/199	108/198
	68/68	143/143	85/85	135/135	153/153	218/218	117/117	146/148	152/146	227/227	199/199	108/198
	68/68	143/143	83/83	135/135	153/153	218/218	117/117	146/148	152/146	225/227	199/199	198/198
	68/68	143/143	85/85	135/135	153/153	218/218	117/117	146/146	152/146	225/227	199/199	108/138
	68/70	143/143	85/85	135/135	153/153	218/218	117/117	146/146	152/146	225/227	199/199	198/198
	68/68	143/143	85/85	135/135	155/155	218/218	117/117	146/146	152/146	225/227	197/199	198/198
	68/70	143/143	85/85	135/135	153/153	218/218	117/153	146/148	152/146	225/227	199/199	108/198
	68/70	143/143	83/83	135/135	153/157	218/218	117/117	146/148	152/146	225/227	199/199	108/198
	68/70	143/143	83/83	135/135	153/153	218/218	117/117	146/148	152/146	225/227	199/199	108/108
	68/70	143/143	83/83	135/135	153/153	218/218	117/117	146/148	152/146	225/227	199/199	108/198
NE5	68/68	127/127	83/83	127/127	143/143	218/218	111/111	142/144	152/158	225/227	197/197	108/198
	102/102	167/167	83/83	127/127	141/141	218/218	115/115	142/142	152/156	225/227	197/197	135/195
	68/68	127/127	83/83	127/127	143/143	218/218	111/111	142/142	152/156	225/225	143/195	135/138
	68/68	127/127	83/83	127/127	143/143	218/218	111/111	130/142	152/156	225/225	195/197	195/195
	68/68	127/127	83/83	127/127	145/145	218/218	111/111	142/142	152/156	225/227	197/197	135/135
	68/70	127/127	83/83	127/127	145/145	218/218	111/111	142/144	152/156	225/227	197/197	108/198
	126/126	127/167	83/83	127/129	143/143	218/218	111/115	138/142	152/156	225/227	195/199	135/195
	102/102	167/167	83/83	129/129	143/143	218/218	115/115	138/140	152/148	227/227	199/199	111/111
	68/68	127/127	83/83	127/127	143/143	218/218	111/111	142/144	152/156	225/227	195/197	108/198
	68/68	127/127	83/83	127/127	143/143	218/218	111/111	134/142	152/156	225/227	197/197	108/198
NE6	80/82	177/179	111/111	137/139	153/153	218/218	127/127	134/136	152/152	227/227	165/211	108/108
	82/82	177/179	109/111	137/139	153/153	218/218	127/127	134/136	152/152	227/227	165/211	135/210
	82/112	149/149	89/89	135/135	141/141	218/218	111/127	148/150	152/154	227/227	165/211	108/108
	96/96	149/149	113/113	137/137	141/141	218/218	127/127	134/136	152/164	225/227	169/207	168/168
	112/112	175/175	85/89	133/133	141/141	218/218	111/127	148/148	152/152	225/227	165/211	174/174
	80/96	149/149	83/111	135/139	141/153	218/218	111/127	148/152	152/162	225/225	199/211	174/174
	80/80	149/149	111/111	137/137	153/153	218/218	127/127	134/134	152/152	229/231	165/211	156/222
	80/80	149/149	111/111	137/137	153/153	218/218	127/127	134/134	152/154	229/231	163/211	156/210
	80/80	149/149	111/111	137/137	153/153	218/218	127/127	134/136	152/152	229/231	165/211	135/210
	80/80	149/149	111/111	137/137	153/153	218/218	127/127	134/134	152/152	225/227	163/211	135/210
NE7	80/80	189/189	83/83	125/125	141/153	218/218	127/127	146/146	152/158	225/225	197/197	117/117
	80/80	189/189	83/83	125/125	141/153	218/218	127/127	146/146	152/158	225/225	197/197	117/117
	80/80	189/189	83/83	125/125	151/151	218/218	127/127	146/146	152/158	225/225	195/195	195/195
	80/82	139/189	83/83	125/125	151/153	218/218	127/127	146/146	152/158	225/227	197/197	108/135
	80/82	189/189	83/83	125/125	151/151	218/218	127/127	146/146	152/158	227/227	195/195	195/195
	80/80	189/189	83/83	125/125	151/151	218/218	127/127	146/146	152/146	227/227	195/195	198/198
	80/80	189/189	83/83	125/125	151/151	218/218	127/127	146/146	152/146	225/227	195/195	198/198
	80/82	187/189	83/83	125/125	153/153	218/218	127/127	146/148	152/158	225/227	197/197	108/198
	80/80	189/189	83/83	125/125	143/151	218/218	111/127	146/148	152/156	225/227	195/195	195/195
	80/82	185/187	83/83	125/125	151/151	218/218	127/127	146/148	152/158	225/227	197/197	108/198
NE8	82/84	119/169	87/87	135/135	153/153	218/218	115/115	150/150	152/162	227/227	211/211	135/144
	84/102	169/171	89/93	135/135	153/153	218/218	113/153	150/152	152/160	227/227	199/211	198/198

Population	RM1	RM206	RM109	RM247	RM211	RM477	RM251	RM234	RM259	RM133	RM316	RM481
NE8	84/102	169/183	83/93	135/135	153/153	218/218	113/115	142/150	152/162	227/227	211/211	210/210
	84/102	183/183	87/93	133/133	153/153	218/218	113/113	150/152	152/162	227/227	211/211	210/210
	92/102	167/167	89/89	133/135	153/153	218/218	113/113	150/150	152/162	227/227	199/199	132/144
	100/102	119/169	89/89	133/133	153/153	218/218	113/113	150/150	152/162	227/227	207/207	135/144
	96/102	183/183	89/89	135/135	153/159	218/218	113/113	130/150	152/162	227/227	199/211	108/135
	100/100	167/167	87/87	133/135	153/153	218/218	113/115	150/150	152/150	227/227	197/199	198/198
	84/94	167/169	87/93	133/133	153/153	218/218	113/115	150/152	152/158	227/227	199/211	108/135
	82/94	167/169	87/87	133/133	153/155	218/218	113/115	150/150	152/158	227/227	199/199	198/198
NE9	100/102	173/173	83/83	133/133	151/151	218/218	125/125	134/134	152/156	227/229	201/201	201/201
	100/102	173/173	85/85	133/133	151/151	218/218	125/125	134/136	152/156	227/229	201/201	132/183
	100/102	173/173	83/83	133/133	151/151	218/218	125/125	134/134	152/156	227/227	201/201	132/201
	100/102	173/173	83/83	133/133	151/151	218/218	125/125	134/134	152/156	227/229	201/201	201/201
	100/100	173/173	85/85	133/133	151/151	218/218	125/125	134/134	152/156	227/227	201/201	132/201
	100/100	173/173	83/83	133/133	151/151	218/218	125/125	134/134	152/156	227/227	201/201	201/201
	100/100	173/173	83/83	133/133	141/151	218/218	111/111	134/134	152/156	227/227	201/201	201/201
	100/112	173/173	83/87	133/133	141/151	218/218	111/111	134/134	152/156	227/227	201/201	201/201
NE10	100/100	173/173	83/83	133/133	151/151	218/218	125/125	134/134	152/158	227/227	201/201	132/132
	102/102	123/173	85/85	133/133	151/151	218/218	125/125	134/134	152/158	227/227	201/201	132/132
	86/112	135/161	83/87	125/135	139/141	218/218	111/141	140/148	152/154	227/231	197/201	108/120
	86/112	135/161	83/87	125/135	139/141	218/218	111/117	140/148	152/154	227/231	197/201	120/132
	86/112	135/161	83/87	125/135	139/141	218/218	111/117	140/148	152/154	227/231	197/201	174/198
	74/76	127/127	83/87	125/135	139/141	218/218	123/141	144/146	152/158	227/227	167/203	108/108
	74/76	127/127	85/85	147/147	139/141	200/200	115/141	136/138	152/136	227/227	145/209	108/210
	74/76	127/127	85/85	147/147	139/141	218/218	123/123	144/144	152/144	227/227	167/203	108/108
NE11	74/76	187/189	83/83	113/113	143/143	218/218	123/123	152/154	152/168	227/227	199/199	108/198
	74/76	187/189	83/83	113/113	143/143	218/218	123/143	152/154	152/168	227/227	199/199	108/198
	74/76	187/189	79/83	115/115	143/143	218/218	123/143	152/154	152/168	227/227	197/197	108/198
	74/76	187/187	83/83	115/115	143/143	218/218	123/123	134/134	152/168	227/227	197/199	108/129
	74/76	131/131	83/83	131/131	143/143	218/218	125/125	142/144	152/180	227/229	199/199	198/198
	74/76	131/131	83/83	131/131	143/143	218/218	125/125	142/144	152/180	227/229	199/199	198/198
	74/76	131/131	83/83	131/131	143/143	218/218	125/125	142/142	152/180	227/229	199/199	138/198
	74/76	131/131	85/85	131/131	143/143	218/218	125/125	142/142	152/140	229/229	199/199	138/198
NE12	74/76	131/131	85/85	131/131	143/143	218/218	125/125	142/144	152/180	229/229	199/199	108/198
	74/74	131/131	83/83	131/131	143/143	218/218	125/125	142/142	152/180	229/229	199/199	198/198
	74/76	131/131	83/83	131/131	143/143	218/218	125/125	142/144	152/180	229/229	199/199	198/198
	74/76	131/131	83/83	131/131	143/143	218/218	125/125	142/142	152/180	229/229	199/199	198/198
	74/76	131/131	85/85	131/131	143/143	218/218	125/143	142/144	152/180	229/229	199/199	198/198
	90/92	163/163	83/83	135/135	151/151	218/218	123/123	150/152	152/160	225/227	197/197	108/108
	92/92	155/159	83/83	135/135	151/151	218/218	123/123	150/150	152/160	227/229	195/197	108/138
	92/92	155/159	83/83	135/135	151/151	218/218	123/123	152/152	152/160	227/229	195/197	108/138
108/108	189/189	87/87	131/131	141/141	218/218	111/111	156/156	152/144	225/227	197/197	108/198	
108/108	189/189	89/89	131/131	141/141	218/218	111/111	154/156	152/144	225/225	197/197	198/198	
90/90	189/189	89/89	131/131	155/155	218/218	111/111	170/170	152/144	227/227	199/199	108/198	
74/106	189/189	103/107	131/131	143/147	218/222	111/115	140/146	152/154	231/231	143/213	108/108	

Population	RM1	RM206	RM109	RM247	RM211	RM477	RM251	RM234	RM259	RM133	RM316	RM481
NE12	72/74	131/139	101/107	135/145	141/147	218/218	115/115	144/146	152/154	231/231	143/213	108/108
	72/72	131/139	101/107	135/145	141/147	218/218	115/115	146/148	152/152	227/231	143/213	108/108
	72/74	131/139	101/107	135/145	141/147	218/218	115/115	144/146	152/154	227/231	143/213	108/108
NE13	106/106	179/181	85/85	141/141	147/147	218/218	111/111	138/140	152/158	225/227	199/199	108/198
	106/106	179/179	83/83	141/141	147/147	218/218	111/111	138/138	152/138	225/227	199/199	108/198
	106/106	179/179	83/83	141/141	147/147	218/218	111/111	138/140	152/158	225/227	199/199	108/198
	72/74	125/125	83/83	127/127	147/147	218/218	161/163	134/136	152/174	227/229	199/199	108/198
	72/74	125/125	83/83	127/127	147/147	218/218	147/161	134/136	152/174	229/229	199/199	108/198
	72/72	125/125	83/83	125/125	141/141	218/218	147/161	130/130	152/130	229/229	199/199	198/198
	72/74	125/125	85/85	125/125	141/141	218/218	113/113	130/132	152/152	229/229	161/199	108/198
	80/82	129/129	79/83	123/123	153/153	218/218	161/163	128/130	152/156	231/231	161/161	108/198
	80/82	129/129	83/83	123/123	153/153	218/218	163/163	128/128	152/128	229/229	161/161	108/198
	80/80	129/129	83/83	123/123	153/153	218/218	161/163	128/128	152/128	229/229	161/207	162/207
NE14	78/80	141/141	107/107	127/127	159/159	198/198	153/153	132/134	152/156	225/227	141/199	198/198
	78/80	141/141	109/109	127/127	159/159	198/198	153/153	132/134	152/156	225/227	141/199	198/198
	78/80	141/141	109/109	127/127	159/159	198/198	153/153	132/134	152/156	225/227	197/199	108/198
	80/82	125/125	111/111	143/145	147/147	218/218	115/115	130/132	152/178	227/227	199/199	198/198
	80/82	125/125	111/111	143/143	147/147	218/218	115/115	130/132	152/178	225/227	199/199	135/198
	80/82	125/125	111/111	143/143	147/147	218/218	115/115	130/132	152/178	225/227	199/199	198/198
	80/82	125/125	109/109	143/143	155/155	218/218	113/113	130/132	152/178	225/227	143/199	198/198
	80/82	125/125	109/109	111/143	147/147	218/218	113/113	130/130	152/178	225/227	199/199	135/138
	80/82	125/125	111/111	143/145	155/155	218/218	113/113	130/132	152/178	225/227	199/199	147/198
	80/82	125/125	111/111	143/143	155/155	218/218	113/113	130/132	152/178	225/227	199/199	198/198
NE15	116/116	131/131	87/87	149/149	149/151	218/218	151/151	146/146	152/144	225/227	195/195	132/132
	68/68	121/121	83/87	149/149	149/151	218/218	111/111	142/142	152/142	227/229	195/197	135/138
	96/112	131/161	89/89	135/151	141/151	218/218	111/111	148/150	152/154	227/229	197/197	198/198
	96/96	131/131	87/87	151/151	141/151	218/218	97/97	142/144	152/144	225/227	197/197	108/198
	94/96	131/131	89/89	149/151	149/151	218/218	109/109	142/142	152/144	225/227	195/197	198/198
	76/96	131/159	83/87	135/135	141/151	218/218	111/111	142/148	152/154	225/227	197/199	198/198
	96/96	131/159	89/89	135/135	151/151	218/218	111/111	142/142	152/142	227/227	197/197	132/174
	76/96	125/131	89/95	135/135	141/151	218/218	111/117	142/148	152/154	227/227	197/199	174/198
	96/96	131/159	89/95	135/135	149/151	218/218	111/111	142/144	152/142	227/227	197/197	174/198
	96/96	131/131	87/87	149/149	149/151	218/218	111/111	142/142	152/142	227/227	195/197	198/198
NE16	82/82	147/147	83/83	125/125	145/145	218/218	123/123	164/164	152/136	227/227	207/207	108/123
	82/82	147/147	83/83	125/125	145/145	218/218	123/123	164/164	152/136	227/227	207/207	108/135
	82/82	147/147	83/83	125/125	145/145	218/218	123/123	164/164	152/136	227/227	207/207	108/123
	82/82	147/147	83/83	125/125	145/145	218/218	123/123	164/164	152/136	227/227	207/207	108/123
	90/90	127/127	83/83	137/137	159/159	218/218	119/119	146/146	152/152	227/227	199/199	108/108
	82/82	147/147	83/83	125/125	145/145	218/218	123/123	164/164	152/136	227/227	207/207	108/123
	82/82	147/147	83/83	125/125	145/145	218/218	123/123	164/164	152/136	227/227	207/207	123/123
	82/82	147/147	83/83	127/127	145/145	218/218	123/123	164/164	152/136	227/227	209/209	108/123
	82/82	147/147	83/83	125/125	145/145	218/218	123/123	164/164	152/136	227/227	207/207	108/123
	82/82	147/147	83/83	125/125	145/145	218/218	123/123	164/164	152/136	227/227	207/207	108/123
NE17	70/70	183/183	83/83	127/127	151/151	218/218	161/161	168/168	152/166	225/225	199/199	132/198
	70/70	181/181	83/83	127/127	151/151	218/218	159/159	168/168	152/162	227/227	199/199	132/132

Population	RM1	RM206	RM109	RM247	RM211	RM477	RM251	RM234	RM259	RM133	RM316	RM481
NE17	70/70	181/181	83/83	127/127	151/151	218/218	161/161	168/168	152/166	225/225	199/199	198/198
	70/70	163/183	83/83	127/135	151/151	218/218	111/111	148/168	152/152	225/225	199/199	132/198
	70/70	183/183	83/83	127/127	151/151	218/218	105/159	168/168	152/154	225/225	199/199	132/132
	70/112	161/183	83/83	127/135	141/151	218/218	111/111	152/168	152/154	225/225	199/199	129/132
	70/70	183/183	83/83	127/127	151/151	218/218	161/161	150/150	152/162	225/225	199/199	132/198
	70/70	183/183	83/83	127/127	151/151	218/218	161/161	168/168	152/166	225/225	199/199	132/132
	70/70	183/183	83/83	127/127	151/151	216/216	161/161	168/168	152/154	225/225	199/199	198/198
	70/70	181/181	83/83	127/127	151/151	218/218	161/161	168/168	152/154	225/225	199/199	132/132
NE18	80/80	183/183	89/89	133/133	155/155	218/218	115/115	136/136	152/156	225/225	197/197	135/198
	80/80	129/129	89/89	133/133	155/155	218/218	115/115	136/136	152/160	227/227	197/197	198/198
	66/66	129/129	89/89	135/135	155/155	218/218	115/115	136/136	152/138	227/227	197/197	108/135
	80/80	129/129	89/89	133/133	155/155	218/218	115/115	136/136	152/156	227/227	197/197	108/135
	80/80	129/183	89/89	133/133	155/155	218/218	115/115	130/136	152/156	227/227	197/197	108/198
	80/80	129/129	89/89	127/127	155/155	218/218	115/115	136/136	152/156	227/227	197/197	135/135
	66/66	129/129	89/89	133/133	155/155	218/218	115/115	136/136	152/158	225/225	197/197	135/198
	80/80	129/129	89/89	127/133	155/155	218/218	115/115	130/136	152/156	225/225	197/197	135/135
	66/80	129/129	89/89	133/133	155/155	218/218	115/115	130/136	152/154	225/225	199/199	135/135
	66/80	183/183	89/89	133/133	155/155	218/218	115/115	136/136	152/158	225/225	197/197	135/198
NE19	84/84	153/153	93/93	135/151	143/143	218/218	109/113	134/154	152/162	229/229	221/221	126/126
	84/84	129/129	83/83	125/129	143/143	218/222	115/125	142/142	152/162	229/229	209/219	129/129
	84/84	129/129	85/107	129/129	143/143	218/218	115/125	142/142	152/162	229/229	209/219	129/129
	84/84	153/153	73/93	129/139	143/143	218/218	109/113	154/154	152/162	229/229	221/221	126/126
	84/84	129/129	83/83	129/139	147/147	218/218	103/113	132/144	152/158	225/225	201/207	132/132
	74/84	131/131	83/93	131/131	143/147	218/222	109/109	142/150	152/184	229/237	207/221	126/126
	82/82	129/147	83/83	135/141	143/147	208/222	113/115	140/152	152/146	229/229	201/221	126/132
	72/86	129/129	93/113	139/143	147/147	218/222	105/115	124/140	152/146	229/229	201/209	129/147
	84/84	129/153	105/113	139/139	145/147	218/222	113/113	140/140	152/158	227/227	207/211	126/126
	72/86	129/129	93/93	139/143	147/147	218/222	105/115	124/140	152/146	227/227	201/209	126/126
NE20	78/98	123/137	83/83	123/133	149/153	218/218	111/113	128/144	152/168	227/231	203/203	108/108
	80/98	123/137	83/83	123/135	149/153	218/218	111/111	128/146	152/168	227/231	203/203	108/108
	78/98	123/137	83/83	123/133	149/153	218/218	111/111	128/144	152/168	227/231	203/203	108/108
	78/98	123/137	83/83	123/133	149/153	218/218	107/111	128/144	152/168	225/229	197/203	108/108
	78/98	123/137	83/83	123/133	149/153	218/218	107/107	144/144	152/148	225/229	197/197	108/108
	78/98	123/137	83/83	123/133	149/153	218/218	111/111	128/144	152/148	225/229	197/203	126/138
	78/98	123/137	83/83	123/133	149/153	218/218	111/111	128/144	152/168	227/231	203/203	126/138
	78/98	123/137	83/83	123/133	149/153	218/218	111/111	128/144	152/168	225/229	203/203	126/138
	78/98	123/137	83/83	123/133	149/149	218/218	111/111	128/128	152/168	227/231	197/203	126/138
	78/98	123/137	83/83	123/133	149/149	218/218	111/113	128/128	152/148	227/231	197/203	126/138
NE21	74/86	135/155	83/83	143/143	143/143	218/218	109/109	134/138	152/160	227/231	213/213	99/126
	86/92	133/135	77/111	131/131	143/143	218/222	109/115	128/134	152/172	227/233	209/209	132/138
	74/80	131/131	83/83	123/123	145/157	218/218	105/111	128/138	152/178	229/233	199/209	126/132
	74/86	135/155	73/83	129/129	145/145	218/218	109/109	134/138	152/160	227/231	211/211	126/138
	86/86	131/131	87/97	129/151	143/147	218/218	109/115	130/130	152/128	227/237	211/211	126/138
	80/126	155/161	83/83	125/129	157/157	218/222	111/125	126/148	152/160	229/233	199/217	129/129
	86/92	131/135	107/107	129/129	143/143	218/218	109/115	128/134	152/172	227/233	209/215	132/138

Population	RM1	RM206	RM109	RM247	RM211	RM477	RM251	RM234	RM259	RM133	RM316	RM481
NE21	86/92	131/135	85/85	127/127	143/143	218/218	109/115	128/134	152/172	227/233	209/209	132/132
	74/74	155/155	83/83	143/143	143/157	218/218	109/119	142/146	152/178	231/231	199/209	126/132
	114/114	163/163	83/83	131/139	149/149	218/222	125/125	154/154	152/154	227/227	199/199	147/147
NE22	90/90	151/151	85/85	133/133	149/149	218/218	105/113	142/142	152/150	229/229	199/199	120/120
	90/90	151/173	85/85	133/133	149/149	218/218	145/145	142/142	152/150	229/229	199/199	120/120
	90/90	173/173	83/83	135/135	153/153	218/218	145/145	142/142	152/156	231/231	203/203	108/120
	90/90	173/173	83/83	135/135	153/153	218/218	145/145	142/142	152/156	231/231	203/203	108/120
	90/90	173/173	83/83	135/135	153/153	218/218	143/143	142/142	152/156	229/229	203/203	120/120
	116/116	173/173	83/83	135/135	153/153	218/218	143/143	142/142	152/156	229/229	203/203	120/120
	90/90	173/173	83/83	135/135	153/153	218/218	143/143	142/142	152/156	229/229	203/203	120/120
	90/90	173/173	83/83	135/135	153/153	218/218	143/143	142/142	152/156	231/231	203/203	120/120
	90/90	173/173	83/83	137/137	153/153	218/218	143/143	142/142	152/156	231/231	203/203	120/120
	90/90	173/173	83/83	135/135	153/153	218/218	143/143	142/142	152/142	229/229	203/203	204/204
NE23	84/102	127/131	87/87	131/135	141/141	218/218	105/115	154/154	152/172	225/225	201/215	129/129
	76/104	127/131	87/101	131/135	141/141	208/218	123/123	140/140	152/172	225/229	193/193	171/171
	76/98	127/127	87/87	135/135	141/141	218/218	105/105	172/172	152/172	229/229	201/201	171/171
	76/102	131/137	101/101	131/131	143/143	206/206	123/123	154/154	152/172	225/229	217/217	129/129
	76/102	131/131	87/101	131/131	141/141	208/218	105/123	140/140	152/172	225/225	219/225	111/129
	98/98	133/133	87/101	131/135	141/141	208/218	105/115	140/154	152/172	225/229	219/219	153/153
	76/104	127/131	87/101	131/135	141/141	208/218	123/123	154/154	152/172	225/229	201/201	153/153
	76/76	131/131	87/87	131/131	141/141	208/218	105/105	154/154	152/154	225/229	223/223	153/153
	76/76	131/131	87/101	131/131	141/141	208/218	105/105	154/154	152/154	227/231	225/225	129/129
	98/98	127/133	71/87	135/135	141/141	218/218	115/123	140/154	152/172	231/231	201/221	111/129

Appendix A-2 Allele sizes of thirty-seven cultivated rice varieties of 12 microsatellite loci

Population	RM1	RM206	RM109	RM247	RM211	RM477	RM251	RM234	RM259	RM133	RM316	RM481
DH26	124/124	169/169	083/083	139/139	153/153	218/218	111/111	152/152	154/154	229/229	199/199	132/132
DML3	124/124	159/159	083/083	139/139	153/153	218/218	111/111	152/152	154/154	229/229	199/199	132/132
KDK	116/116	153/153	085/085	127/127	151/151	218/218	115/115	144/144	148/148	227/227	193/193	171/171
KDML105	112/112	163/163	087/087	133/133	141/141	218/218	115/115	144/144	152/152	227/227	195/195	174/174
KP41	123/123	151/151	087/087	139/139	141/141	218/218	111/111	154/154	154/154	229/229	197/197	135/135
KPM148	106/106	149/149	087/087	135/135	143/143	218/218	111/111	154/154	154/154	227/227	197/197	180/180
KR88	108/108	151/151	089/089	137/137	155/155	218/218	111/111	158/158	154/154	227/227	199/199	131/131
MN62M	106/106	153/153	085/085	133/133	149/149	218/218	115/115	124/124	152/152	227/227	189/189	171/171
NM34	104/104	149/149	087/087	135/135	151/151	218/218	111/111	154/154	154/154	229/229	197/197	132/132
NSG	074/074	143/143	073/073	137/137	139/139	218/218	137/137	128/128	154/154	227/227	187/187	139/139
PDD	106/106	147/147	091/091	131/131	133/133	218/218	131/131	156/156	156/156	227/227	187/187	139/139
R258	094/094	127/127	093/093	155/155	141/141	218/218	121/121	126/126	160/160	239/239	190/190	177/177
RD10	104/104	131/131	087/087	133/133	141/141	218/218	157/157	152/152	160/160	233/233	199/199	147/147
RD6	126/126	165/165	083/083	133/133	141/141	218/218	121/121	144/144	154/154	229/229	195/195	174/174
CNT1	112/112	147/147	087/087	135/135	151/151	218/218	157/157	154/154	152/152	227/227	197/197	165/165
CNT2	116/116	147/147	087/087	135/135	141/141	218/218	121/121	152/152	152/152	231/231	195/195	177/177
CNT3	112/112	131/131	083/083	135/135	161/161	218/218	155/155	152/152	152/152	231/231	203/203	186/186
CNT80	112/112	131/131	083/083	135/135	161/161	218/218	155/155	152/152	152/152	231/231	203/203	186/186
HKL1	106/106	149/149	087/087	135/135	141/141	218/218	111/111	152/152	154/154	225/225	197/197	132/132
HSP	078/078	167/167	087/087	135/135	141/141	218/218	145/145	152/152	156/156	225/225	199/199	132/132
IR68144	112/112	145/145	079/079	123/123	161/161	218/218	115/115	124/124	180/180	227/227	193/193	147/147
PSL1	116/116	171/171	089/089	135/135	137/137	218/218	125/125	156/156	148/148	231/231	195/195	186/186
PSL2	080/080	151/151	083/083	133/133	159/159	218/218	125/125	156/156	152/152	229/229	193/193	159/159
PSL3	080/080	171/171	089/089	135/135	137/137	218/218	157/157	158/158	152/152	231/231	193/193	183/183
PTT1	108/108	147/147	089/089	135/135	161/161	218/218	157/157	152/152	152/152	229/229	195/195	186/186
PTT2	116/116	147/147	089/089	127/127	137/137	218/218	157/157	150/150	152/152	231/231	195/195	177/177
RD1	080/080	125/125	079/079	133/133	149/149	218/218	157/157	150/150	160/160	231/231	197/197	174/174
RD23	110/110	167/167	087/087	133/133	151/151	218/218	133/133	154/154	154/154	229/229	199/199	132/132
RD29	112/112	131/131	083/083	135/135	161/161	218/218	151/151	150/150	152/152	231/231	203/203	186/186
RD4	104/104	151/151	087/087	133/133	141/141	218/218	157/157	160/160	154/154	231/231	199/199	147/147
RD7	110/110	165/165	089/089	137/137	145/145	218/218	145/145	150/150	154/154	229/229	197/197	147/147
SKN	104/104	180/180	079/079	127/127	137/137	218/218	153/153	146/146	152/152	227/227	193/193	144/144
SPR1	108/108	167/167	087/087	133/133	141/141	218/218	145/145	154/154	152/152	227/227	197/197	147/147
SPR2	110/110	145/145	083/083	133/133	151/151	218/218	145/145	152/152	156/156	229/229	197/197	144/144
SPR60	108/108	167/167	091/091	137/137	151/151	218/218	137/137	154/154	136/136	229/229	197/197	135/135
SPR90	106/106	125/125	083/083	135/135	151/151	218/218	145/145	152/152	152/152	225/225	199/199	132/132
SPT1	106/106	165/165	085/085	129/129	137/137	218/218	115/115	156/156	152/152	227/227	197/197	144/144

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Appendix A-3 Allele sizes of twelve weedy rice populations of 12 microsatellite loci

Population	RM1	RM206	RM109	RM247	RM211	RM477	RM251	RM234	RM259	RM133	RM316	RM481	
LNWE1	100/100	135/135	87/87	129/153	141/141	218/218	105/111	142/146	154/154	227/227	197/213	132/132	
	112/112	165/169	87/87	135/135	141/141	218/218	111/111	150/150	154/154	227/227	197/197	132/171	
	98/118	163/169	87/87	137/137	141/145	218/218	111/111	142/152	154/156	227/227	197/213	156/171	
	112/112	131/131	87/87	137/137	141/141	218/218	111/111	150/150	154/154	227/227	211/211	171/171	
	106/126	163/163	83/83	131/141	151/151	218/218	111/111	154/154	154/154	227/227	197/197	132/150	
	112/112	161/161	87/87	129/135	141/141	218/218	105/111	142/148	154/162	227/231	197/211	126/162	
	112/112	161/161	87/87	129/135	141/141	218/218	105/111	142/148	154/162	227/231	197/209	126/132	
	84/106	145/145	87/87	129/137	141/151	218/218	111/111	156/156	154/164	227/227	197/197	132/141	
	84/106	145/145	91/91	129/137	141/143	218/218	111/111	146/156	154/162	227/231	197/217	141/141	
	90/118	155/163	91/91	129/137	141/143	218/218	111/111	146/156	154/162	227/231	197/217	141/141	
	LNWE2	106/106	165/165	87/87	135/135	151/151	218/218	145/145	152/152	158/158	227/227	199/199	132/171
		80/80	145/145	87/87	139/139	151/151	218/218	145/145	154/154	154/154	225/225	199/199	132/171
80/106		165/165	87/87	135/135	151/151	218/218	145/145	152/152	154/154	227/227	199/199	132/171	
80/80		145/145	87/87	141/141	151/151	218/218	145/145	156/156	154/154	227/227	199/199	132/168	
80/110		145/145	87/87	141/141	151/151	218/218	145/145	156/156	154/154	227/227	197/197	168/171	
80/80		145/145	87/87	139/139	151/151	218/218	145/145	154/154	154/154	227/227	199/199	132/171	
80/80		167/167	87/87	139/139	151/151	218/218	145/145	158/158	154/154	229/229	197/197	198/198	
80/80		145/145	87/87	141/141	151/151	218/218	145/145	156/156	154/154	227/227	199/199	132/168	
80/106		145/145	87/87	139/139	151/151	218/218	145/145	154/154	154/154	225/225	199/199	171/171	
80/80		145/145	87/87	141/141	151/151	218/218	109/145	156/156	154/154	227/227	199/199	168/168	
CTWE1		74/110	125/125	83/87	137/137	151/151	218/218	145/145	156/156	156/156	229/229	197/197	198/198
		74/110	125/125	83/83	137/137	151/151	218/218	111/111	154/154	154/154	227/227	199/199	138/198
	110/110	125/125	83/83	135/135	151/151	218/218	145/145	154/154	158/158	229/229	197/197	144/144	
	108/108	167/167	87/87	135/135	151/151	218/218	145/145	156/156	158/158	227/227	159/199	132/156	
	78/78	167/167	83/83	135/135	151/151	218/218	145/145	156/156	154/154	229/229	197/205	168/171	
	78/106	125/125	83/83	135/135	151/151	218/218	145/151	154/154	158/158	227/227	171/197	198/198	
	110/110	125/125	87/87	135/135	151/151	218/218	145/145	156/156	158/158	229/229	171/197	198/198	
	78/78	167/167	83/83	135/135	151/151	218/218	145/145	156/156	158/158	227/227	171/197	198/198	
	110/110	167/167	83/83	135/135	151/151	218/218	145/145	152/152	154/154	227/227	171/199	171/198	
	106/106	125/125	83/83	135/135	151/151	218/218	145/145	156/156	158/158	227/227	171/197	171/198	
	CTWE2	110/110	167/167	83/83	133/133	151/151	218/218	127/127	154/154	154/154	229/229	171/205	207/207
		110/110	167/167	83/83	133/133	151/151	218/218	127/127	152/152	154/154	229/229	205/205	138/138
106/106		163/163	87/87	135/135	141/141	218/218	141/141	156/156	154/154	229/229	173/205	144/156	
110/110		167/167	83/83	133/133	151/151	218/218	127/127	154/154	154/154	229/229	171/205	204/204	
110/110		133/133	83/83	135/135	151/151	218/218	145/145	154/154	158/158	227/227	171/205	138/168	
110/110		133/133	83/83	135/135	151/151	218/218	145/145	152/152	158/158	227/227	171/205	138/168	
110/110		133/133	83/83	135/135	151/151	218/218	145/145	152/152	158/158	227/227	171/205	138/138	
106/106		167/167	83/83	135/135	151/151	218/218	127/127	154/154	154/154	227/227	171/199	138/138	
110/110		169/169	83/83	135/135	151/151	218/218	127/127	156/156	156/156	229/229	197/197	198/198	
106/106		167/167	83/83	135/135	151/151	218/218	127/127	154/154	158/158	227/227	171/197	171/198	
CTWE3		74/74	125/125	87/87	133/133	151/163	218/218	145/145	156/156	164/164	225/225	199/199	144/162
		72/110	145/145	87/87	135/135	141/163	218/218	117/141	146/146	164/164	225/225	197/205	147/147
	74/74	145/167	89/89	133/133	163/163	218/218	117/117	146/154	164/164	227/229	197/205	132/147	
	74/74	167/167	89/89	131/131	163/163	218/218	117/117	148/148	154/154	227/227	197/197	144/171	
	74/112	145/145	87/87	131/131	141/141	218/218	117/145	146/146	154/164	227/229	197/205	132/132	
	74/74	167/167	89/89	131/131	163/163	218/218	117/117	146/146	164/164	227/227	197/197	144/144	
	110/110	145/167	87/87	133/133	163/163	218/218	141/141	156/156	156/156	227/227	197/197	132/132	
	74/110	145/167	87/87	133/133	141/163	218/218	117/141	148/148	164/164	227/229	197/205	132/159	

Population	RM1	RM206	RM109	RM247	RM211	RM477	RM251	RM234	RM259	RM133	RM316	RM481
	72/72	167/167	89/89	131/131	163/163	218/218	117/117	146/146	152/152	227/227	197/197	159/174
	72/108	145/145	89/89	133/133	161/161	218/218	149/149	152/152	152/164	227/227	197/197	198/198
CTWE4	110/110	167/167	83/83	133/133	151/151	218/218	109/151	152/152	152/152	231/231	197/197	198/198
	110/110	167/167	83/83	133/133	151/151	218/218	145/145	152/152	152/152	231/231	197/197	144/168
	110/110	167/167	83/83	133/133	151/151	218/218	145/145	152/154	152/152	231/231	197/197	144/168
	110/110	167/167	83/83	133/133	151/151	218/218	109/109	152/152	152/152	231/231	197/197	198/198
	110/110	167/167	83/83	133/133	151/151	218/218	145/145	152/152	152/152	231/231	197/197	144/168
	110/110	167/167	83/83	133/133	151/151	218/218	145/145	152/154	152/152	231/231	197/197	144/195
	110/110	167/167	83/83	133/133	151/151	218/218	145/145	152/156	152/152	231/231	197/197	195/195
	110/110	167/167	83/83	133/133	151/151	218/218	145/145	152/154	152/152	231/231	197/197	144/168
	110/110	167/167	83/83	133/133	151/151	218/218	145/145	152/154	152/152	231/231	197/197	171/171
	110/110	167/167	83/83	133/133	151/151	218/218	109/145	152/152	152/158	231/231	197/197	171/171
CTWE5	110/110	167/167	83/83	133/133	151/151	218/218	145/145	152/152	152/152	231/231	197/197	171/171
	110/110	167/167	83/83	133/133	151/151	218/218	145/145	152/152	152/152	231/231	197/197	144/171
	110/110	167/167	83/83	133/133	151/151	218/218	145/145	152/152	152/152	231/231	197/197	144/144
	110/110	167/167	83/83	133/133	151/151	218/218	145/145	152/154	152/152	231/231	197/197	144/168
	110/110	167/167	83/83	133/133	151/151	218/218	145/145	152/152	152/152	231/231	197/197	144/171
	110/110	167/167	83/83	133/133	151/151	218/218	145/145	152/152	152/152	231/231	197/197	168/168
	110/110	167/167	83/83	133/133	151/151	218/218	145/145	152/152	152/152	231/231	197/197	198/198
	108/108	167/167	83/87	133/133	151/161	218/218	111/145	152/154	152/152	231/231	197/197	198/198
	110/110	167/167	83/83	133/133	151/151	218/218	145/145	152/152	152/152	231/231	197/197	144/171
	110/110	167/167	83/83	133/133	151/151	218/218	145/145	152/152	152/152	231/231	171/197	171/171
NEWE1	76/76	155/155	87/87	129/129	153/153	218/218	147/147	156/156	152/162	227/227	175/199	135/171
	112/112	157/161	87/87	135/135	141/141	218/218	111/111	150/150	152/154	227/229	197/197	171/198
	76/76	155/155	87/87	129/129	153/153	218/218	147/147	156/156	152/162	227/227	175/199	135/171
	112/112	161/161	83/87	135/135	141/153	218/218	111/111	150/156	152/154	227/229	175/197	198/198
	112/112	161/161	87/87	135/135	141/141	218/218	111/111	150/150	152/154	227/229	197/197	132/171
	112/112	155/155	87/87	135/135	141/141	218/218	111/111	156/156	152/154	229/229	175/197	174/198
	112/112	161/161	87/87	135/135	141/141	218/218	111/111	150/150	152/162	229/229	175/199	135/198
	76/76	155/155	83/87	135/135	141/141	218/218	111/111	150/150	152/154	229/229	175/199	129/132
	112/126	161/161	83/87	135/135	141/141	218/218	111/111	150/156	152/154	227/227	197/197	135/168
	112/112	161/161	87/87	135/135	141/141	218/218	111/111	150/150	152/162	229/229	175/199	135/171
NEWE2	108/108	141/141	89/89	131/131	151/151	218/218	139/139	136/136	152/148	231/231	199/199	198/198
	108/108	141/141	89/89	131/131	151/151	218/218	139/139	134/134	152/148	231/231	199/199	144/198
	108/108	141/141	89/89	131/131	151/151	218/218	139/139	136/136	152/148	231/231	199/199	144/144
	108/108	141/141	89/89	131/131	151/151	218/218	139/139	134/134	152/148	231/231	199/199	198/198
	108/108	161/161	87/87	135/135	141/141	218/218	111/111	156/156	152/154	229/229	197/197	132/132
	108/108	141/141	89/89	131/131	151/151	218/218	139/139	136/136	152/148	231/231	199/199	144/198
	108/108	141/141	89/89	131/131	151/151	218/218	139/139	134/134	152/148	231/231	199/199	144/198
	108/108	141/141	89/89	131/131	151/151	218/218	139/139	136/136	152/148	231/231	199/199	144/198
	108/108	141/141	89/89	131/131	151/151	218/218	139/139	134/134	152/148	231/231	199/199	198/198
	108/108	141/141	89/89	131/131	151/151	218/218	139/139	136/136	152/148	231/231	199/199	111/198
NEWE3	112/112	161/161	87/87	135/135	141/141	218/218	111/111	150/150	152/156	227/227	197/197	132/171
	74/112	131/161	83/87	129/135	141/143	208/218	111/115	146/150	152/168	227/227	197/207	123/171
	102/112	163/163	87/87	135/135	141/141	218/218	101/111	160/160	152/154	227/227	197/197	132/132
	92/92	121/121	83/83	135/135	141/141	218/218	101/111	144/150	152/158	227/227	197/203	120/132
	74/106	131/151	87/87	133/137	141/141	208/208	111/115	146/154	152/168	227/227	197/201	132/168
	74/112	131/131	83/87	129/135	141/143	208/218	111/115	146/150	152/168	227/227	197/207	123/171
NEWE3	74/112	131/131	83/87	129/135	141/143	208/218	111/115	146/150	152/168	227/227	197/207	174/174
	112/112	145/161	83/87	135/135	141/153	218/218	101/101	160/160	152/154	227/227	197/197	132/171

Population	RM1	RM206	RM109	RM247	RM211	RM477	RM251	RM234	RM259	RM133	RM316	RM481
	112/112	145/161	83/87	137/137	141/153	218/218	101/101	150/160	152/154	227/227	197/197	132/132
	74/112	131/131	83/87	129/135	141/143	208/218	111/115	144/150	152/166	227/227	197/207	123/171
NEWE4	82/114	163/163	83/87	125/135	141/145	218/218	111/123	227/227	152/150	136/154	197/197	132/174
	82/114	163/163	83/87	125/135	141/145	218/218	111/123	227/227	152/150	136/154	197/197	132/174
	82/114	163/163	83/87	125/135	141/145	218/218	111/123	227/227	152/150	136/154	197/197	132/174
	124/124	163/163	83/83	135/135	153/153	218/218	111/111	229/229	152/152	154/154	197/197	132/177
	82/114	163/163	83/87	125/135	141/145	218/218	111/123	227/227	152/150	136/154	197/197	132/174
	82/114	163/163	83/87	125/135	141/145	218/218	111/123	227/227	152/150	136/154	197/197	132/174
	82/114	163/163	83/87	125/135	141/145	218/218	111/123	227/227	152/150	136/154	197/197	132/174
	124/124	163/163	83/83	135/135	153/153	218/218	111/111	229/229	152/152	154/154	197/197	132/177
	82/114	163/163	83/87	125/135	141/145	218/218	111/123	227/227	152/150	136/154	197/197	132/174
	82/114	163/163	83/87	125/135	141/145	218/218	111/123	227/227	152/150	136/154	197/197	132/174
NEWE5	110/110	133/133	85/85	127/127	151/151	218/218	151/151	138/138	152/168	227/227	197/197	132/132
	112/112	133/133	85/85	135/135	141/151	218/218	111/111	138/148	152/152	227/227	197/197	132/171
	112/112	133/133	85/85	127/127	151/151	218/218	169/169	138/138	152/168	227/227	197/197	132/132
	110/110	133/133	85/85	127/127	151/151	218/218	169/169	138/138	152/168	227/227	197/197	132/132
	110/110	133/161	87/87	127/135	141/141	218/218	111/111	150/150	152/168	227/227	197/197	132/171
	110/110	133/133	87/87	127/135	151/151	218/218	111/111	150/150	152/168	227/227	197/197	132/171
	110/110	133/133	85/85	127/127	151/151	218/218	99/99	138/138	152/168	227/227	197/197	132/132
	110/110	133/133	85/85	127/127	151/151	218/218	111/111	138/148	152/168	227/227	197/197	132/132
	110/110	133/161	85/85	127/135	141/151	218/218	111/111	140/150	152/168	227/227	197/197	198/198
	110/110	133/161	85/85	135/135	141/141	218/218	111/111	138/148	152/154	227/227	197/197	132/174

ลิขสิทธิ์มหาวิทยาลัยเชียงใหม่
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Appendix B

Appendix B-1 Villages, districts and provinces name

Population abbreviation	Location*	หมู่บ้าน
HEC	Huai-e-cang, Maewang, CM	บ้านห้วยอีค่าง อ.แม่วาง จ.เชียงใหม่
NT	Nong-tao, Maewang, CM	บ้านหนองเต่า อ.แม่วาง จ.เชียงใหม่
PLR	Pong-lom-rang, Maewang, CM	บ้านโป่งลมแรง อ.แม่วาง จ.เชียงใหม่
PK	Pa-kloy, Maewang, CM	บ้านปากกล้วย อ.แม่วาง จ.เชียงใหม่
MLC	Mae-lan-come, Samerng, CM	บ้านแม่ลานคำ อ.สะเมิง จ.เชียงใหม่
GSM	Gue-sere, Samerng, CM	บ้านกิวเสื่อ อ.สะเมิง จ.เชียงใหม่
WH	Wieng-hang, Wieng Hang, CM	บ้านเวียงแหง อ.เวียงแหง จ.เชียงใหม่
NL	Nhong-lom, Chom Thong, CM	บ้านหนองหล่ม อ.จอมทอง จ.เชียงใหม่
MG	Muang-glang, Chom Thong, CM	บ้านเมืองกลาง อ.จอมทอง จ.เชียงใหม่
MJ	Mae-cham-Luang, Mae Cham, CM	บ้านแม่แจ่มหลวง อ.แม่แจ่ม จ.เชียงใหม่
MT	Mae-tho, Hod, CM	บ้านแม่โต อ.ฮอด จ.เชียงใหม่
KSN	Khun-sa-nai, Pai, MHS	บ้านขุนสาคู อ.ป่าซาง จ.แม่ฮ่องสอน
HN	Huai-na, Mae Sariang, MHS	บ้านห้วยนา อ.แม่สะเรียง จ.แม่ฮ่องสอน

Appendix B-2 Allele sizes of 33 Bue Chomee seed lots of 6 microsatellite loci

Population	RM1	RM164	RM241	RM253	RM22	OSR28
HEC1	100/100	266/266	100/100	113/113	204/204	148/148
	100/100	266/266	106/106	113/113	204/204	148/148
	86/86	266/266	100/100	113/113	204/204	148/148
	86/86	266/266	106/106	113/113	210/210	148/148
	100/100	266/266	106/106	113/113	204/204	148/148
	100/100	266/266	106/106	113/113	204/204	148/148
	104/104	266/266	100/100	113/113	204/204	138/138
	100/100	266/266	100/100	113/113	204/204	148/148
	86/86	266/266	100/100	113/113	204/204	148/148
	100/100	266/266	106/106	113/113	204/204	148/148
	100/100	266/266	100/100	113/113	204/204	148/148
	100/100	266/266	100/100	113/113	210/210	148/148
	100/100	266/276	106/106	113/113	204/204	148/148
	100/100	266/276	106/106	113/113	204/204	148/148
	104/104	266/266	100/100	113/113	204/204	148/148
HEC2	100/100	266/266	100/100	113/113	204/204	148/148
	100/100	266/266	100/100	113/113	204/204	148/148
	100/100	266/266	106/106	113/113	210/210	148/148
	86/100	266/266	106/106	113/113	204/204	148/148
	100/100	266/266	106/106	113/113	210/210	148/148
	86/86	266/266	106/106	113/113	204/204	148/148
	100/100	266/266	100/100	113/113	204/204	138/138
	104/104	276/276	106/106	113/113	204/204	148/148
	86/86	266/266	106/106	113/113	204/204	148/148
	100/100	266/266	106/106	113/113	204/204	148/148
	100/100	266/266	106/106	113/113	204/204	148/148
	104/104	266/266	100/100	113/113	204/204	148/148
	86/86	266/266	106/106	113/113	204/204	148/148
	100/100	266/266	100/100	113/113	204/204	148/148
	104/104	276/276	106/106	113/113	204/204	148/148
HEC3	100/100	266/266	100/100	113/113	204/204	148/148
	100/100	266/266	106/106	113/113	204/204	148/148
	100/100	266/266	106/106	113/113	204/204	148/148
	104/104	276/276	100/100	109/109	204/204	148/148
	86/86	266/266	100/100	113/113	204/204	148/148
	100/100	266/266	106/106	113/113	204/204	148/148
	100/100	266/266	100/100	109/109	204/204	148/148
	104/104	276/276	100/100	113/113	204/204	148/148
	104/104	276/276	100/100	113/113	204/204	148/148
	104/104	276/276	100/100	113/113	210/210	148/148
	68/68	266/266	100/100	113/113	204/204	148/148
	100/100	266/266	100/100	109/109	204/204	148/148
	104/104	266/276	100/100	113/113	204/204	148/148
	100/100	266/266	100/100	109/109	204/204	148/148
	100/100	266/266	100/100	113/113	204/204	148/148
HEC4	100/100	266/266	100/100	113/113	204/204	148/148
	100/100	266/266	100/100	113/113	204/204	148/148
	100/100	266/266	100/100	95/95	204/204	148/148
	86/86	266/266	100/100	113/113	204/204	148/148
	104/104	266/266	106/106	113/113	204/204	148/148

Population	RM1	RM164	RM241	RM253	RM22	OSR28
HEC4	104/104	266/266	100/100	113/113	204/204	138/138
	104/104	266/266	100/100	113/113	204/204	148/148
	100/100	266/266	100/100	113/113	210/210	148/148
	104/104	266/266	100/100	113/113	204/204	148/148
	100/100	266/266	106/106	113/113	204/204	148/148
	100/100	266/266	100/100	113/113	210/210	148/148
	100/100	266/266	106/106	113/113	204/204	148/148
	100/100	266/266	106/106	113/113	204/204	148/148
HEC5	100/100	266/266	106/106	113/113	204/204	138/138
	100/100	266/266	100/100	113/113	204/204	148/148
	100/100	266/266	106/106	95/95	204/204	138/138
	100/100	266/266	100/100	113/113	204/204	148/148
	100/100	266/266	106/106	113/113	204/204	148/148
	100/100	266/266	100/100	113/113	204/204	138/138
	100/100	266/266	94/94	113/113	204/204	138/138
	100/100	266/266	100/100	113/113	204/204	138/138
	100/100	266/266	106/106	113/113	204/204	148/148
	100/100	266/266	106/106	113/113	204/204	148/148
	100/100	266/266	100/100	113/113	204/204	138/138
	100/100	266/266	106/106	113/113	204/204	148/148
HEC6	100/100	266/266	100/100	113/113	204/204	148/148
	104/104	266/266	106/106	113/113	204/204	148/148
	86/86	266/266	106/106	113/113	204/204	148/148
	86/86	266/266	100/100	113/113	204/204	148/148
	104/104	266/266	100/100	113/113	204/204	148/148
	104/104	266/266	100/100	113/113	204/204	148/148
	100/100	266/266	106/106	113/113	204/204	148/148
	100/100	266/266	106/106	113/113	204/204	148/148
	100/100	266/266	106/106	113/113	204/204	148/148
	100/100	266/266	106/106	113/113	204/204	148/148
	100/100	266/266	106/106	113/113	204/204	148/148
	86/86	266/266	106/106	113/113	204/204	148/148
HEC7	100/100	266/266	100/100	113/113	204/204	148/148
	100/100	266/266	100/100	113/113	204/204	148/148
	100/100	266/266	100/100	113/113	204/204	148/148
	100/100	266/266	100/100	113/113	204/204	148/148
	86/86	266/266	106/106	113/113	204/204	148/148
	100/100	266/266	100/100	113/113	204/204	148/148
	100/100	266/266	106/106	113/113	204/204	148/148
	100/100	276/276	106/106	113/113	204/204	148/148
	86/86	266/276	100/100	113/113	204/204	148/148
	100/100	276/276	100/100	113/113	204/204	138/138
	86/86	266/276	100/100	113/113	204/204	148/148
	100/100	266/266	100/100	113/113	204/204	148/148
HEC8	100/100	266/266	100/100	113/113	204/204	138/138
	86/86	266/266	100/100	113/113	204/204	138/138
	100/100	280/280	94/94	113/113	204/204	148/148
	86/86	276/276	94/94	113/113	204/204	148/148
	100/100	266/266	100/100	113/113	204/204	138/138
	100/100	266/266	100/100	113/113	204/204	148/148
	100/100	266/266	94/94	113/113	210/210	138/138

Population	RM1	RM164	RM241	RM253	RM22	OSR28
HEC8	100/100	266/266	100/100	113/113	204/204	148/148
	100/100	266/266	94/94	113/113	204/204	148/148
	100/100	266/266	100/100	113/113	204/204	148/148
HEC9	86/86	266/266	100/100	113/113	204/204	138/138
	100/100	266/266	94/94	113/113	204/204	148/148
	104/104	266/266	94/94	113/113	204/204	148/148
	100/100	266/266	94/94	113/113	204/204	148/148
	86/86	266/266	100/100	113/113	204/204	148/148
	104/104	266/266	94/94	113/113	204/204	148/148
	104/104	266/266	94/94	113/113	204/204	138/138
	104/104	266/266	100/100	113/113	204/204	148/148
	104/104	266/266	100/100	113/113	204/204	148/148
	100/100	266/266	100/100	113/113	204/204	148/148
	100/100	266/266	100/100	113/113	204/204	138/138
HEC10	100/100	266/266	94/94	113/113	204/204	148/148
	104/104	266/266	100/100	113/113	204/204	148/148
	104/104	266/266	94/94	113/113	204/204	148/148
	104/104	266/266	94/94	113/113	204/204	148/148
	104/104	266/266	100/100	113/113	204/204	138/138
	86/86	266/266	94/94	113/113	204/204	148/148
	100/100	266/266	100/100	95/95	204/204	148/148
	100/100	266/266	100/100	113/113	210/210	148/148
	100/100	276/276	94/94	113/113	204/204	148/148
	100/100	266/266	100/100	113/113	210/210	148/148
	100/100	266/266	94/94	113/113	204/204	138/138
	100/100	266/266	100/100	113/113	204/204	138/138
	100/100	266/266	100/100	113/113	204/204	148/148
	100/100	266/266	94/94	113/113	204/204	138/138
	HEC11	100/100	266/266	94/94	113/113	204/204
100/100		266/266	100/100	113/113	204/204	138/138
100/100		276/276	94/94	113/113	204/204	148/148
100/100		266/266	94/94	113/113	204/204	138/138
100/100		266/266	100/100	113/113	204/204	138/138
100/100		266/266	100/100	113/113	204/204	138/138
100/100		266/266	94/94	113/113	204/204	148/148
100/100		276/276	100/100	113/113	204/204	148/148
100/100		266/266	94/94	113/113	204/204	138/138
100/100		266/266	94/94	113/113	204/204	138/138
100/100		266/266	94/94	113/113	204/204	138/138
HEC12	100/100	266/266	100/100	113/113	204/204	148/148
	100/100	266/266	94/94	113/113	204/204	148/148
	86/86	266/266	100/100	113/113	204/204	148/148
	104/104	266/266	94/94	113/113	204/204	148/148
	86/86	266/266	100/100	113/113	204/204	148/148
	104/104	266/266	94/94	113/113	204/204	148/148
	104/104	266/266	100/100	113/113	204/204	148/148
	86/86	266/266	100/100	113/113	204/204	138/138
	86/86	276/276	100/100	113/113	204/204	138/138
	104/104	276/276	94/94	113/113	204/204	148/148
	104/104	266/266	94/94	113/113	204/204	148/148

Population	RM1	RM164	RM241	RM253	RM22	OSR28
HEC12	100/100	266/266	100/100	113/113	204/204	138/138
	104/104	276/276	94/94	113/113	210/210	148/148
	86/86	276/276	94/94	113/113	204/204	148/148
HEC13	86/86	266/266	100/100	113/113	204/204	148/148
	86/86	266/266	100/100	113/113	204/204	138/138
	104/104	266/266	100/100	113/113	204/204	138/138
	104/104	266/266	100/100	113/113	204/204	138/138
	104/104	266/266	100/100	113/113	204/204	138/138
	86/86	266/266	100/100	113/113	204/204	138/138
	104/104	266/266	100/100	113/113	204/204	138/138
	100/100	266/266	100/100	113/113	204/204	148/148
	100/100	266/266	100/100	113/113	204/204	148/148
	100/100	266/276	100/100	113/113	204/204	148/148
	100/100	266/266	94/94	113/113	204/204	138/138
	100/100	266/266	100/100	113/113	204/204	138/138
	100/100	266/266	100/100	113/113	204/204	138/138
	NT1	104/104	276/276	100/100	95/95	204/204
86/86		276/276	106/106	113/113	204/204	148/148
86/86		266/266	106/106	113/113	204/204	148/148
104/104		276/276	94/94	113/113	204/204	148/148
104/104		266/266	100/100	95/95	204/204	148/148
104/104		266/266	94/94	113/113	204/204	148/148
104/104		266/266	106/106	113/113	204/204	148/148
104/104		266/266	106/106	113/113	204/204	148/148
86/86		266/266	94/94	113/113	204/204	138/138
104/104		266/266	100/100	113/113	204/204	148/148
NT2		104/104	266/266	94/94	95/95	204/204
	104/104	266/266	100/100	113/113	204/204	148/148
	86/86	276/276	106/106	113/113	204/204	138/138
	104/104	266/266	100/100	113/113	204/204	148/148
	100/100	266/266	106/106	113/113	204/204	138/138
	104/104	266/266	106/106	113/113	204/204	138/138
	104/104	276/276	100/100	95/95	204/204	148/148
	104/104	266/266	94/94	113/113	204/204	138/138
	100/100	276/276	94/94	113/113	204/204	138/138
	104/104	266/266	94/94	113/113	204/204	138/138
	100/100	266/276	106/106	113/113	204/204	138/138
	104/104	266/266	100/100	113/113	204/204	148/148
	86/104	266/266	100/100	113/113	204/204	138/138
	104/104	266/266	106/106	113/113	204/204	148/148
100/100	276/276	100/100	113/113	204/204	138/138	
104/104	266/276	106/106	113/113	204/204	138/138	
NT3	86/86	276/276	106/106	113/113	204/204	148/148
	104/104	266/266	100/100	113/113	204/204	138/138
	100/100	266/266	106/106	113/113	204/204	138/138
	104/104	266/266	106/106	95/95	204/204	138/138
	104/104	266/266	100/100	113/113	204/204	138/138
	100/100	266/266	106/106	113/113	204/204	148/148
	104/104	276/276	100/100	113/113	204/204	148/148

Population	RM1	RM164	RM241	RM253	RM22	OSR28
NT3	104/104	266/266	100/100	113/113	204/204	148/148
	100/100	266/276	106/106	113/113	204/204	138/138
	104/104	266/266	106/106	113/113	204/204	148/148
	86/86	266/266	106/106	113/113	204/204	148/148
	104/104	266/266	100/100	113/113	204/204	148/148
	86/86	266/276	100/100	113/113	204/204	148/148
NT4	104/104	266/266	100/100	109/109	204/204	148/148
	86/86	266/266	100/100	113/113	204/204	148/148
	86/86	266/266	106/106	113/113	204/204	138/138
	86/86	266/266	106/106	113/113	204/204	148/148
	86/86	266/266	106/106	113/113	204/204	148/148
	104/104	266/266	100/100	95/95	204/204	148/148
	104/104	276/276	106/106	113/113	204/204	148/148
	86/86	276/276	100/100	113/113	204/204	148/148
	104/104	266/266	106/106	95/95	204/204	138/138
	104/104	266/266	100/100	113/113	204/204	148/148
	100/100	276/276	100/100	113/113	204/204	148/148
	104/104	266/266	106/106	113/113	204/204	148/148
	104/104	266/266	100/100	95/95	204/204	148/148
	86/86	266/266	106/106	95/95	204/204	148/148
	104/104	266/266	100/100	95/95	204/204	148/148
	86/86	276/276	106/106	113/113	204/204	148/148
	104/104	276/276	100/100	113/113	204/204	148/148
	104/104	266/266	106/106	95/95	204/204	148/148
	86/86	276/276	106/106	113/113	204/204	148/148
	104/104	266/266	106/106	113/113	204/204	138/138
104/104	266/266	100/100	113/113	204/204	138/138	
MW1	100/100	266/266	94/94	113/113	204/204	138/138
	100/100	266/266	100/100	113/113	204/204	148/148
	100/100	266/266	94/94	113/113	204/204	138/138
	100/100	266/266	100/100	113/113	204/204	148/148
	86/86	266/266	100/100	113/113	204/204	148/148
	100/100	266/266	94/94	113/113	204/204	138/138
	100/100	266/266	100/100	113/113	204/204	148/148
	86/86	266/266	94/94	113/113	204/204	138/138
	100/100	266/266	100/100	113/113	204/204	148/148
	100/100	266/266	100/100	113/113	204/204	148/148
	100/100	266/266	100/100	113/113	204/204	148/148
	104/104	266/266	100/100	113/113	204/204	148/148
	100/100	266/266	94/94	113/113	204/204	148/148
	104/104	266/266	100/100	113/113	204/204	148/148
	100/100	266/266	100/100	113/113	204/204	148/148
	86/86	266/266	94/94	113/113	204/204	148/148
	100/100	276/276	94/94	113/113	204/204	148/148
	100/100	266/266	94/94	113/113	204/204	148/148
	100/100	266/266	100/100	113/113	204/204	148/148
	MW2	86/86	266/266	94/94	113/113	204/204
100/100		266/266	94/94	113/113	204/204	138/138
100/100		266/266	100/100	113/113	204/204	148/148

Population	RM1	RM164	RM241	RM253	RM22	OSR28
MW2	100/100	266/266	100/100	113/113	204/204	148/148
	86/86	266/266	94/94	109/109	204/204	148/148
	100/100	266/266	100/100	113/113	204/204	148/148
	86/86	266/266	100/100	113/113	204/204	148/148
	100/100	266/266	94/94	113/113	204/204	138/138
	92/92	266/266	100/100	113/113	204/204	148/148
	100/100	266/266	94/94	113/113	204/204	138/138
	100/100	266/266	94/94	113/113	204/204	138/138
	100/100	266/266	94/94	113/113	204/204	148/148
	100/100	266/266	100/100	113/113	204/204	138/138
	100/100	266/266	94/94	113/113	204/204	148/148
	100/100	266/266	94/94	113/113	204/204	148/148
	100/100	266/266	94/94	113/113	204/204	138/138
	104/104	266/266	100/100	113/113	204/204	148/148
	104/104	266/266	94/94	113/113	204/204	148/148
MW3	86/86	266/266	100/100	113/113	204/204	148/148
	104/104	266/266	100/100	113/113	204/204	148/148
	104/104	266/266	94/94	113/113	204/204	148/148
	86/86	266/266	100/100	113/113	204/204	148/148
	104/104	266/266	94/94	113/113	204/204	148/148
	100/100	276/276	94/94	113/113	204/204	148/148
	86/86	266/266	100/100	113/113	204/204	148/148
	104/104	266/266	94/94	113/113	204/204	148/148
	86/86	266/266	106/106	113/113	204/204	148/148
	100/100	280/280	94/94	113/113	204/204	148/148
	100/100	266/266	100/100	113/113	204/204	148/148
	104/104	266/266	100/100	113/113	204/204	148/148
	104/104	266/266	94/94	113/113	204/204	148/148
	86/86	266/266	94/94	113/113	204/204	148/148
	100/100	276/276	94/94	113/113	204/204	148/148
104/104	266/266	100/100	113/113	204/204	148/148	
100/100	266/266	100/100	113/113	204/204	148/148	
100/100	266/266	100/100	113/113	204/204	148/148	
100/100	266/266	106/106	113/113	204/204	148/148	
104/104	276/276	94/94	113/113	204/204	148/148	
104/104	266/266	100/100	113/113	204/204	148/148	
MW4	104/104	266/266	100/100	113/113	204/204	148/148
	86/86	266/266	94/94	113/113	204/204	148/148
	104/104	266/266	94/94	113/113	204/204	148/148
	100/100	266/266	94/94	113/113	204/204	138/138
	92/92	266/266	94/94	113/113	204/204	138/138
	104/104	266/266	106/106	113/113	204/204	148/148
	100/100	266/266	106/106	113/113	204/204	148/148
	86/86	266/266	106/106	113/113	204/204	148/148
	104/104	276/276	94/94	113/113	204/204	148/148
	100/100	266/266	100/100	113/113	204/204	148/148
	100/100	266/266	94/94	113/113	204/204	148/148
	100/100	266/266	100/100	113/113	204/204	148/148
	100/100	266/266	100/100	113/113	204/204	148/148
	100/100	266/266	94/94	113/113	204/204	148/148
	100/100	266/266	100/100	113/113	204/204	148/148
86/86	266/266	94/94	109/109	204/204	148/148	

Population	RM1	RM164	RM241	RM253	RM22	OSR28
MLC1	104/104	266/266	100/100	113/113	204/204	148/148
	86/86	266/266	100/100	113/113	204/204	148/148
	104/104	266/266	100/100	113/113	204/204	138/138
	104/104	266/266	94/94	113/113	204/204	138/138
	86/86	276/276	100/100	113/113	204/204	148/148
	104/104	266/266	94/94	113/113	204/204	138/138
	104/104	266/266	100/100	113/113	204/204	148/148
	100/100	276/276	100/100	113/113	204/204	148/148
	86/86	266/266	100/100	109/109	204/204	148/148
	100/100	280/280	100/100	113/113	204/204	148/148
	100/100	280/280	100/100	113/113	204/204	148/148
	100/100	280/280	100/100	109/109	204/204	148/148
	100/100	280/280	100/100	113/113	204/204	148/148
	100/100	280/280	100/100	113/113	204/204	148/148
	100/100	280/280	100/100	113/113	204/204	148/148
	100/100	280/280	100/100	113/113	204/204	148/148
	86/86	280/280	100/100	109/109	204/204	148/148
	100/100	280/280	100/100	113/113	204/204	148/148
	100/100	280/280	100/100	109/109	204/204	148/148
	MLC2	86/86	280/280	100/100	113/113	204/204
86/86		280/280	100/100	113/113	204/204	148/148
100/100		280/280	100/100	113/113	204/204	148/148
100/100		280/280	100/100	109/109	204/204	148/148
100/100		280/280	100/100	113/113	204/204	148/148
100/100		280/280	100/100	113/113	204/204	148/148
100/100		280/280	100/100	113/113	204/204	148/148
100/100		280/280	100/100	113/113	204/204	148/148
86/86		266/266	100/100	109/109	204/204	148/148
86/86		280/280	100/100	113/113	204/204	148/148
100/100		280/280	100/100	109/109	204/204	148/148
100/100		280/280	100/100	113/113	204/204	148/148
100/100		280/280	100/100	113/113	204/204	148/148
100/100		280/280	100/100	113/113	204/204	148/148
100/100		280/280	100/100	109/109	204/204	148/148
100/100	266/266	100/100	113/113	204/204	148/148	
MLC3	100/100	280/280	100/100	109/109	204/204	148/148
	86/86	266/266	100/100	113/113	204/204	148/148
	86/86	266/266	100/100	113/113	204/204	148/148
	100/100	280/280	100/100	109/109	204/204	138/138
	100/100	266/266	100/100	113/113	204/204	148/148
	100/100	266/266	100/100	113/113	204/204	138/138
	86/86	280/280	100/100	109/109	204/204	138/138
	100/100	280/280	100/100	113/113	204/204	148/148
	100/100	280/280	100/100	109/109	204/204	148/148
	104/104	280/280	100/100	109/109	204/204	148/148
	86/86	280/280	100/100	113/113	204/204	138/138
	86/86	280/280	100/100	113/113	204/204	138/138
	100/100	266/266	100/100	113/113	204/204	148/148
	86/86	280/280	100/100	109/109	204/204	138/138
	GSM	104/104	280/280	94/94	109/109	204/204
104/104		280/280	100/100	109/109	204/204	148/148

Population	RM1	RM164	RM241	RM253	RM22	OSR28
GSM	104/104	280/280	94/94	109/109	204/204	148/148
	100/100	266/266	100/100	109/109	204/204	148/148
	100/100	266/266	100/100	109/109	204/204	148/148
	100/100	266/266	100/100	109/109	204/204	148/148
	104/104	266/266	100/100	109/109	204/204	148/148
	104/104	280/280	100/100	109/109	204/204	148/148
	100/100	280/280	100/100	109/109	204/204	148/148
	104/104	280/280	94/94	109/109	204/204	148/148
	104/104	280/280	100/100	109/109	204/204	148/148
	104/104	280/280	100/100	109/109	204/204	148/148
	104/104	280/280	100/100	109/109	204/204	148/148
	104/104	266/266	100/100	109/109	204/204	148/148
	104/104	266/266	100/100	109/109	204/204	148/148
	100/100	280/280	100/100	109/109	204/204	148/148
	104/104	266/266	100/100	109/109	204/204	148/148
WH	104/104	266/266	100/100	109/109	204/204	148/148
	104/104	266/266	100/100	113/113	204/204	148/148
	104/104	266/266	100/100	113/113	204/204	148/148
	104/104	300/300	100/100	113/113	204/204	148/148
	104/104	300/300	106/106	113/113	204/204	148/148
	104/104	300/300	106/106	113/113	204/204	148/148
	104/104	286/286	100/100	113/113	204/204	148/148
	104/104	286/286	100/100	113/113	210/210	148/148
	104/104	280/280	106/106	113/113	204/204	148/148
	104/104	280/280	106/106	113/113	204/204	148/148
	104/104	280/280	106/106	113/113	210/210	148/148
	104/104	280/280	106/106	113/113	204/204	148/148
	104/104	280/280	100/100	113/113	204/204	148/148
	104/104	266/266	100/100	113/113	210/210	148/148
	100/100	266/266	106/106	113/113	204/204	138/138
100/100	266/266	106/106	113/113	204/204	148/148	
104/104	286/286	100/100	113/113	204/204	148/148	
104/104	300/300	100/100	113/113	204/204	138/138	
100/100	286/286	106/106	113/113	204/204	148/148	
104/104	280/280	100/100	113/113	204/204	148/148	
NL1	86/86	266/266	100/100	113/113	204/204	148/148
	100/100	266/266	100/100	113/113	204/204	138/138
	100/100	266/266	94/94	113/113	204/204	138/138
	100/100	266/266	94/94	113/113	204/204	148/148
	100/100	280/280	94/94	113/113	204/204	138/138
	100/100	280/280	106/106	113/113	204/204	148/148
	100/100	280/280	94/94	113/113	204/204	138/138
	100/100	280/280	100/100	113/113	204/204	138/138
	100/100	276/280	100/100	113/113	204/204	148/148
	86/86	276/280	100/100	113/113	204/204	148/148
	86/86	276/280	100/100	113/113	204/204	148/148
	86/86	276/280	94/94	113/113	204/204	138/138

Population	RM1	RM164	RM241	RM253	RM22	OSR28
	100/100	276/276	94/94	113/113	204/204	138/138
	100/100	266/266	94/94	113/113	204/204	148/148
	100/100	266/266	106/106	113/113	204/204	138/138
	100/100	266/266	106/106	113/113	204/204	148/148
	100/100	266/266	100/100	113/113	204/204	138/138
	100/100	286/286	94/94	113/113	204/204	148/148
	100/100	276/276	100/100	113/113	204/204	148/148
	100/100	276/276	100/100	113/113	204/204	148/148
NL2	100/100	280/280	100/100	113/113	204/204	138/138
	100/100	280/280	106/106	113/113	204/204	138/138
	100/100	280/280	106/106	113/113	204/204	148/148
	100/100	266/266	100/100	113/113	204/204	138/138
	100/100	266/266	100/100	113/113	204/204	148/148
	104/104	266/266	106/106	113/113	204/204	138/138
	100/100	266/276	106/106	113/113	204/204	138/138
	100/100	266/266	94/94	113/113	204/204	138/138
	100/100	266/266	106/106	113/113	204/204	138/138
	100/100	266/266	100/100	113/113	204/204	138/138
	104/104	276/276	100/100	113/113	204/204	148/148
	100/100	276/280	100/100	113/113	204/204	148/148
	100/100	276/280	100/100	113/113	204/204	138/138
	100/100	276/276	100/100	113/113	204/204	148/148
	100/100	276/280	100/100	113/113	204/204	138/138
	100/100	280/280	100/100	113/113	204/204	138/138
	104/104	286/286	100/100	113/113	204/204	148/148
	86/86	280/280	100/100	113/113	204/204	148/148
	100/100	276/280	100/100	113/113	204/204	138/138
MG	100/100	276/276	106/106	113/113	204/204	148/148
	104/104	266/266	94/94	113/113	204/204	138/138
	100/100	266/266	94/94	113/113	204/204	148/148
	100/100	266/266	94/94	113/113	204/204	138/138
	104/104	266/266	94/94	113/113	204/204	138/138
	104/104	276/280	94/94	113/113	204/204	138/138
	104/104	280/280	100/100	113/113	204/204	138/138
	100/100	276/280	100/100	113/113	204/204	148/148
	104/104	280/280	94/94	113/113	204/204	138/138
	104/104	276/280	100/100	113/113	204/204	148/148
	104/104	276/280	94/94	113/113	204/204	138/138
	100/100	276/280	94/94	113/113	204/204	138/138
	100/100	276/280	100/100	113/113	204/204	148/148
	100/100	266/276	94/94	113/113	204/204	138/138
	100/100	266/266	100/100	113/113	204/204	148/148
	100/100	266/266	94/94	113/113	204/204	138/138
	100/100	280/280	94/94	113/113	204/204	138/138
	100/100	266/266	100/100	113/113	204/204	138/138
	100/100	286/286	100/100	113/113	204/204	148/148
	104/104	266/266	94/94	113/113	204/204	138/138
	100/100	280/280	94/94	113/113	204/204	138/138
MJ	104/104	266/266	100/100	113/113	204/204	148/148
	86/86	266/266	100/100	113/113	204/204	148/148

Population	RM1	RM164	RM241	RM253	RM22	OSR28	
MJ	86/86	280/280	94/94	113/113	204/204	148/148	
	104/104	280/280	94/94	113/113	204/204	138/138	
	92/92	280/280	94/94	113/113	204/204	138/138	
	92/92	276/276	94/94	113/113	204/204	148/148	
	104/104	276/276	100/100	109/109	204/204	148/148	
	92/92	266/266	94/94	109/109	204/204	148/148	
	100/100	280/280	94/94	113/113	204/204	148/148	
	104/104	266/266	94/94	113/113	204/204	138/138	
	104/104	276/276	100/100	109/109	204/204	148/148	
	104/104	266/266	100/100	113/113	204/204	148/148	
	86/86	276/276	94/94	113/113	204/204	138/138	
	92/92	266/266	100/100	109/109	204/204	148/148	
	92/92	266/266	100/100	109/109	204/204	148/148	
	104/104	276/276	94/94	113/113	204/204	148/148	
	104/104	276/276	100/100	113/113	204/204	148/148	
	86/86	276/276	94/94	113/113	204/204	138/138	
	92/92	266/266	100/100	113/113	204/204	148/148	
	100/100	280/280	94/94	113/113	204/204	148/148	
	MT	104/104	266/266	94/94	109/109	204/204	148/148
		104/104	266/266	94/94	113/113	204/204	148/148
104/104		266/266	94/94	113/113	204/204	138/138	
104/104		266/266	100/100	109/109	204/204	148/148	
86/86		266/266	100/100	109/109	204/204	148/148	
104/104		280/280	100/100	109/109	204/204	148/148	
86/86		280/280	94/94	109/109	204/204	138/138	
104/104		280/280	94/94	109/109	204/204	148/148	
86/86		266/266	100/100	109/109	204/204	138/138	
104/104		280/280	94/94	109/109	204/204	148/148	
104/104		266/266	94/94	109/109	204/204	148/148	
104/104		280/280	94/94	113/113	204/204	138/138	
100/100		266/266	100/100	113/113	204/204	148/148	
100/100		266/266	100/100	113/113	204/204	148/148	
104/104		300/300	94/94	109/109	204/204	148/148	
104/104		300/300	94/94	113/113	204/204	148/148	
86/86		300/300	100/100	109/109	204/204	148/148	
104/104		300/300	94/94	109/109	204/204	138/138	
104/104		266/266	100/100	109/109	204/204	148/148	
KSN		104/104	266/266	94/94	109/109	204/204	138/138
	112/112	266/266	94/94	113/113	204/204	138/138	
	116/116	266/266	94/94	113/113	204/204	148/148	
	116/116	276/276	100/100	113/113	210/210	148/148	
	100/100	276/276	94/94	113/113	210/210	138/138	
	86/86	276/276	100/100	113/113	204/204	138/138	
	100/100	276/276	100/100	113/113	210/210	148/148	
	116/116	276/276	100/100	113/113	210/210	138/138	
	112/112	276/276	100/100	113/113	204/204	148/148	
	112/112	276/276	94/94	95/95	210/210	148/148	
	112/112	266/266	94/94	113/113	204/204	148/148	
	116/116	276/276	94/94	113/113	204/204	148/148	
	116/116	276/276	94/94	113/113	204/204	148/148	

Population	RM1	RM164	RM241	RM253	RM22	OSR28
KSN	116/116	276/276	94/94	113/113	204/204	148/148
	100/100	266/266	94/94	113/113	204/204	148/148
	100/100	276/276	94/94	113/113	210/210	148/148
	100/100	276/276	94/94	113/113	210/210	138/138
	86/86	276/276	94/94	113/113	210/210	138/138
	100/100	276/276	94/94	113/113	204/204	138/138
	100/100	276/276	94/94	113/113	210/210	148/148
	100/100	276/276	94/94	113/113	204/204	148/148
	100/100	276/276	94/94	113/113	204/204	148/148
	100/100	276/276	94/94	113/113	204/204	148/148
HN	104/104	276/276	94/94	95/95	210/210	148/148
	104/104	276/276	94/94	95/95	210/210	138/138
	104/104	276/276	94/94	95/95	210/210	148/148
	104/104	276/276	94/94	95/95	204/204	148/148
	104/104	276/276	94/94	95/95	210/210	148/148
	104/104	266/266	94/94	113/113	204/204	138/138
	104/104	276/276	94/94	95/95	204/204	148/148
	104/104	276/276	94/94	95/95	210/210	148/148
	104/104	276/276	94/94	95/95	204/204	138/138
	104/104	276/276	94/94	95/95	204/204	148/148
	104/104	276/276	94/94	95/95	204/204	148/148
	104/104	276/276	94/94	95/95	204/204	138/138
	104/104	276/276	94/94	95/95	204/204	138/138
	104/104	276/276	94/94	95/95	210/210	138/138
	104/104	276/276	94/94	95/95	204/204	148/148
	104/104	266/266	94/94	113/113	210/210	148/148
	104/104	276/276	94/94	95/95	204/204	148/148
	104/104	276/276	94/94	95/95	204/204	138/138
	104/104	276/276	94/94	95/95	210/210	148/148

ลิขสิทธิ์มหาวิทยาลัยเชียงใหม่
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Appendix C

Appendix C-1 Rice varieties, villages, districts and province name

Rice varieties	Network	Village	Ethnic group
Bue Chomee (BC) บือชอมี	BC1	Huai-e-cang village, Mae-wang district, Chiang Mai บ้านห้วยอีค่าง อ.แม่วาง จ.เชียงใหม่	Karen กะเหรี่ยง
	BC2	Huai-khao-leep village, Mae-wang district, Chiang Mai บ้านห้วยข้าวลีบ อ.แม่วาง จ.เชียงใหม่	Karen กะเหรี่ยง
	BC3	Huai-yen village village, Mae-wang district, Chiang Mai บ้านห้วยเย็น อ.แม่วาง จ.เชียงใหม่	Karen กะเหรี่ยง
	BC4	Huai-yen village village, Mae-wang district, Chiang Mai บ้านห้วยเย็น อ.แม่วาง จ.เชียงใหม่	Karen กะเหรี่ยง
Muey Nawng (MN) เหมยนอง	MN1	Sam-sob, Mae Cham district, Chiang Mai province บ้านสามสบ ต.ท่าผา อ.แม่แจ่ม จ.เชียงใหม่	Lowland Thai ไทยพื้นราบ
	MN2	Mae-ming, Mae Cham district, Chiang Mai province บ้านแม่มิ่ง ต.ท่าผา อ.แม่แจ่ม จ.เชียงใหม่	Karen กะเหรี่ยง

Appendix C-2 Allele frequency of individual seed lot within seed exchange network

of Bue Chomee for primer RM1

Accession no.	RM1												
	Allele A	Allele B	Allele C	Allele D	Allele E	Allele F	Allele G	Allele H	Allele I	Allele J	Allele K	Allele L	Allele M
Network BC1													
BC11	0.5	0.4	0.1	0	0	0	0	0	0	0	0	0	0
BC12	0.05	0.65	0	0.05	0.2	0.05	0	0	0	0	0	0	0
BC13	0.05	0.2	0	0.2	0	0.2	0.25	0	0	0	0	0.05	0.05
BC14	0.1	0.5	0	0.15	0	0.1	0.15	0	0	0	0	0	0
BC19*	0.1	0.1	0	0	0	0.05	0.4	0.35	0	0	0	0	0
Network BC2													
BC21	0.1	0.45	0	0	0.1	0	0.25	0.1	0	0	0	0	0
BC22	0	0.05	0	0.05	0	0.05	0.05	0.8	0	0	0	0	0
BC23	0	0.65	0.05	0	0	0.05	0.15	0.1	0	0	0	0	0
BC24	0.1	0.15	0	0.25	0	0.2	0.25	0.05	0	0	0	0	0
BC25	0.15	0	0	0.55	0	0	0.25	0.05	0	0	0	0	0
BC29*	0.15	0.75	0	0.05	0	0	0	0.05	0	0	0	0	0
Network BC3													
BC30	-	-	-	-	-	-	-	-	-	-	-	-	-
BC31	0	0.4	0	0.05	0	0.05	0	0.5	0	0	0	0	0
BC32	0	0	0	0	0	0	0.05	0	0.95	0	0	0	0
BC33	0.05	0	0	0	0	0	0	0	0.85	0.1	0	0	0
BC34	0	0	0	0	0	0	0	0	1	0	0	0	0
Network BC4													
BC41	0	0.1	0	0.3	0	0.1	0	0.4	0	0	0	0.1	0
BC42	0	0	0	0	0	0	0	0	0	0	1	0	0
BC43	0	0	0	0	0	0	0	0	0.05	0	0.95	0	0
BC44	0	0	0	0	0	0	0	0	0.231	0	0.769	0	0
BC45	0	0	0	0	0	0	0	0	0.05	0	0.95	0	0
BC349*	0	0	0	0	0	0	0	0	0.15	0.15	0.7	0	0
Total	0.065	0.213	0.007	0.08	0.015	0.041	0.087	0.116	0.155	0.012	0.199	0.007	0.002

* seed lot outside the network within each the village

Appendix C-3 Allele frequency of individual seed lot within seed exchange network
of Bue Chomee for primer RM149

Accession no.	RM149										
	Allele A	Allele B	Allele C	Allele D	Allele E	Allele F	Allele G	Allele H	Allele I	Allele J	Allele K
Network BC1											
BC11	1	0	0	0	0	0	0	0	0	0	0
BC12	1	0	0	0	0	0	0	0	0	0	0
BC13	0.95	0.05	0	0	0	0	0	0	0	0	0
BC14	0.9	0.05	0	0	0	0	0.05	0	0	0	0
BC19*	0.975	0.025	0	0	0	0	0	0	0	0	0
Network BC2											
BC21	0.9	0.1	0	0	0	0	0	0	0	0	0
BC22	0.95	0	0.05	0	0	0	0	0	0	0	0
BC23	0.95	0.05	0	0	0	0	0	0	0	0	0
BC24	0.975	0.025	0	0	0	0	0	0	0	0	0
BC25	1	0	0	0	0	0	0	0	0	0	0
BC29*	1	0	0	0	0	0	0	0	0	0	0
Network BC3											
BC30	-	-	-	-	-	-	-	-	-	-	-
BC31	1	0	0	0	0	0	0	0	0	0	0
BC32	0.05	0	0.35	0.6	0	0	0	0	0	0	0
BC33	0.05	0.05	0	0	0.9	0	0	0	0	0	0
BC34	0	0	0	0.8	0	0.1	0.1	0	0	0	0
BC31	1	0	0	0	0	0	0	0	0	0	0
Network BC4											
BC42	0	0	0.6	0.05	0	0.25	0	0.1	0	0	0
BC43	0.05	0	0.2	0.05	0	0.65	0.05	0	0	0	0
BC44	0	0	0.154	0	0	0	0.231	0	0.615	0	0
BC45	0	0.15	0.025	0	0	0.65	0.1	0.05	0	0.025	0
BC349*	0.05	0	0.05	0	0	0	0.05	0	0.75	0	0.1
Total	0.62	0.024	0.067	0.073	0.044	0.08	0.024	0.007	0.056	0.001	0.005

* seed lot outside the network within each the village

Appendix C-4 Allele frequency of individual seed lot within seed exchange network

of Bue Chomee for primer RM241, RM211, RM253 and RM167

Accession no.	RM241			RM211		RM253			RM167			
	Allele A	Allele B	Allele C	Allele A	Allele B	Allele A	Allele B	Allele C	Allele A	Allele B	Allele C	Allele D
Network BC1												
BC11	1	0	0	1	0	1	0	0	1	0	0	0
BC12	0.65	0.35	0	1	0	1	0	0	1	0	0	0
BC13	0.6	0.4	0	1	0	1	0	0	1	0	0	0
BC14	0.65	0.35	0	1	0	1	0	0	1	0	0	0
BC19*	0.45	0.55	0	1	0	0.95	0.05	0	1	0	0	0
Network BC2												
BC21	0.55	0.45	0	1	0	0.95	0	0.05	1	0	0	0
BC22	0.4	0.6	0	1	0	0.9	0.05	0.05	1	0	0	0
BC23	0.6	0.4	0	0.9	0.1	1	0	0	1	0	0	0
BC24	0.65	0.35	0	1	0	0.9	0.1	0	1	0	0	0
BC25	0.65	0.35	0	0.95	0.05	0.9	0.1	0	1	0	0	0
BC29*	0.95	0.05	0	0.95	0.05	0.85	0	0.15	1	0	0	0
Network BC3												
BC30	-	-	-	-	-	-	-	-	-	-	-	-
BC31	0.75	0.25	0	1	0	1	0	0	1	0	0	0
BC32	0.05	0.95	0	1	0	0.4	0	0.6	0	0.95	0.05	0
BC33	0.125	0	0.875	1	0	0.9	0	0.1	0.15	0.85	0	0
BC34	0	1	0	1	0	0	0	1	0	1	0	0
Network BC4												
BC41	0.6	0.4	0	0.95	0.05	1	0	0	1	0	0	0
BC42	0	1	0	1	0	0.85	0	0.15	0	1	0	0
BC43	0	0.95	0.05	1	0	0.9	0.1	0	0	1	0	0
BC44	0	0.923	0.077	1	0	0.923	0.077	0	0	1	0	0
BC45	0.025	0.975	0	1	0	0.925	0.025	0.05	0	0.95	0	0.05
BC349*	0.15	0.8	0.05	1	0	0.85	0.15	0	0.15	0.85	0	0
Total	0.429	0.522	0.05	0.988	0.012	0.866	0.03	0.104	0.644	0.351	0.002	0.002

* seed lot outside the network within each the village

Appendix C-5 Allele frequency of individual seed lot within seed exchange network
of Bue Chomee for primer RM1 and RM149

Accession no.	RM1					RM149				
	Allele A	Allele B	Allele C	Allele D	Allele E	Allele A	Allele B	Allele C	Allele D	Allele E
Network MN1										
MN11	0.95	0	0.05	0	0	1	0	0	0	0
MN12	1	0	0	0	0	1	0	0	0	0
MN13	1	0	0	0	0	1	0	0	0	0
MN14	0.95	0	0.05	0	0	1	0	0	0	0
MN15	0.8	0.1	0.1	0	0	1	0	0	0	0
MN16	0.85	0.15	0	0	0	0.95	0.05	0	0	0
MN17	0.95	0	0.05	0	0	1	0	0	0	0
MN18	1	0	0	0	0	1	0	0	0	0
MN19	0.9	0.1	0	0	0	0.85	0.05	0.05	0.05	0
MN110	0.95	0	0.05	0	0	1	0	0	0	0
MN119*	0.8	0	0.2	0	0	0.95	0	0	0	0.05
Network MN2										
MN21	0.95	0	0.05	0	0	0.8	0	0.05	0	0.15
MN22	0.95	0	0.05	0	0	0.95	0	0	0	0.05
MN23	0.8	0.05	0.15	0	0	0.65	0.15	0	0	0.2
MN24	1	0	0	0	0	1	0	0	0	0
MN25	0.95	0	0	0.05	0	0.95	0	0	0.05	0
MN26	0.05	0.9	0	0	0.05	0.05	0	0.05	0	0.9
MN27	-	-	-	-	-	-	-	-	-	-
MN28	0.95	0.05	0	0	0	0.9	0	0.05	0.05	0
MN29	0.95	0.05	0	0	0	0.95	0	0	0	0.05
MN229*	0.95	0	0.05	0	0	1	0	0	0	0
Total	0.885	0.07	0.04	0.003	0.003	0.9	0.013	0.01	0.008	0.07

* seed lot outside the network within each the village

Appendix C-6 Allele frequency of individual seed lot within seed exchange network

of Bue Chomee for primer RM241, RM211, RM253 and RM167

Accession no.	RM241			RM211			RM253		RM167			
	Allele A	Allele B	Allele C	Allele A	Allele B	Allele C	Allele A	Allele B	Allele A	Allele B	Allele C	Allele D
	Network MN1											
MN11	1	0	0	1	0	0	1	0	0.55	0.45	0	0
MN12	1	0	0	1	0	0	1	0	0.7	0.3	0	0
MN13	1	0	0	1	0	0	1	0	0.75	0.25	0	0
MN14	1	0	0	1	0	0	1	0	0.8	0.2	0	0
MN15	1	0	0	1	0	0	0.95	0.05	0.7	0.3	0	0
MN16	0.95	0.05	0	1	0	0	1	0	0.75	0.2	0.05	0
MN17	1	0	0	1	0	0	1	0	0.75	0.25	0	0
MN18	1	0	0	1	0	0	1	0	0.65	0.35	0	0
MN19	0.95	0.05	0	1	0	0	0.8	0.2	0.7	0.2	0.05	0.05
MN110	1	0	0	1	0	0	1	0	0.85	0.15	0	0
MN119*	1	0	0	0.2	0.75	0.05	0.95	0.05	1	0	0	0
Network MN2												
MN21	0.85	0.05	0.1	0.2	0.7	0.1	0.55	0.45	0.5	0	0	0.5
MN22	0.9	0.1	0	0.45	0.5	0.05	1	0	0.7	0.2	0	0.1
MN23	0.8	0.05	0.15	0.45	0.55	0	0.8	0.2	0.3	0.4	0.15	0.15
MN24	1	0	0	0.4	0.6	0	0.95	0.05	0.8	0.15	0	0.05
MN25	0.95	0.05	0	0.85	0.15	0	0.875	0.125	0.75	0.1	0	0.15
MN26	0.05	0.95	0	0.25	0.75	0	0.25	0.75	0.4	0.55	0	0.05
MN27	-	-	-	-	-	-	-	-	-	-	-	-
MN28	0.85	0.15	0	0.35	0.55	0.1	0.9	0.1	0.1	0.8	0.05	0.05
MN29	0.95	0.05	0	0.9	0.1	0	0.825	0.175	0.75	0.15	0	0.1
MN229*	1	0	0	0	1	0	1	0	1	0	0	0
Total	0.913	0.075	0.013	0.703	0.283	0.015	0.893	0.108	0.675	0.25	0.015	0.06

* seed lot outside the network within each the village

Appendix C-7 Number of allele (A) of Bue Chomee seed exchange networks

Accession No.	Number of allele (A)						Total
	RM1	RM149	RM241	RM211	RM253	RM167	
Network BC1							
BC11	3	1	1	1	1	1	8
BC12	5	1	2	1	1	1	11
BC13	7	2	2	1	1	1	14
BC14	5	3	2	1	1	1	13
BC19*	5	2	2	1	2	1	13
Network BC2							
BC21	5	2	2	1	2	1	13
BC22	5	2	2	1	3	1	14
BC23	5	2	2	2	1	1	13
BC24	6	2	2	1	2	1	14
BC25	4	1	2	2	2	1	12
BC29*	4	1	2	2	2	1	12
Network BC3							
BC30	-	-	-	-	-	-	-
BC31	4	1	2	1	1	1	10
BC32	2	3	2	1	2	2	12
BC33	3	3	2	1	2	2	13
BC34	1	3	1	1	1	1	8
Network BC4							
BC41	5	1	2	2	1	1	12
BC42	1	4	1	1	2	1	10
BC43	2	5	2	1	2	1	13
BC44	2	3	2	1	2	1	11
BC45	2	6	2	1	3	2	16
BC349*	3	5	3	1	2	2	16
Total BC	13	11	3	2	3	4	36

* seed lot outside the network within each the village

Appendix C-8 Number of allele (A) of Muey Nawng seed exchange networks

Accession No.	Number of allele (A)						Total
	RM1	RM149	RM241	RM211	RM253	RM167	
Network MN1							
MN11	2	1	1	1	1	2	8
MN12	1	1	1	1	1	2	7
MN13	1	1	1	1	1	2	7
MN14	2	1	1	1	1	2	8
MN15	3	1	1	1	2	2	10
MN16	2	2	2	1	1	3	11
MN17	2	1	1	1	1	2	8
MN18	1	1	1	1	1	2	7
MN19	2	4	2	1	2	4	15
MN110	2	1	1	1	1	2	8
MN119*	2	2	1	3	2	1	11
Network MN2							
MN21	2	3	3	3	2	2	15
MN22	2	2	2	3	1	3	13
MN23	3	3	3	2	2	4	17
MN24	1	1	1	2	2	3	10
MN25	2	2	2	2	2	3	13
MN26	3	3	2	2	2	3	15
MN27	-	-	-	-	-	-	-
MN28	2	3	2	3	2	4	16
MN29	2	2	2	2	2	3	13
MN229*	2	1	1	1	1	1	7
Total MN	5	5	3	3	2	4	22

* seed lot outside the network within each the village

Curriculum Vitae

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Pusadee T., Chiang Y. C., Schaal A. B., Rerkasem B. and Jamjod S. 2009. Genetic structure and isolation by distance in a landrace of Thai rice. *Proc Natl Acad Sci USA* 106 (33):13880-13885.

Presentation and Award

Pusadee T., Schaal B., Rerkasem B. and S. Jamjod. 2008. Population structure and genetic diversity of wild-weed-cultivated complex of *Oryza sativa* in Thailand. Paper presented at the Annual Meeting Meso Crop Science of Senior Scholar Groups. Golden Beach Cha-Am Hotel, Thailand. 21-22 November 2008.

(Best oral presentation award)

Pusadee T., Chiang Y. C., Schaal A. B., Rerkasem B. and Jamjod S. 2006. Genetic structure of a local Thai rice (*Oryza sativa* L.) variety. Paper presented at Royal Golden Jubilee seminar series XLIV: Plant Science Research for Agriculture. Department of Agronomy, Faculty of Agriculture, Chiang Mai University. Chiang Mai. Thailand. 1 September 2006. **(Best poster**

presentation award)

Pusadee T., Chiang Y. C., Schaal A. B., Rerkasem B. and Jamjod S. 2006. Genetic structure of a local Thai rice (*Oryza sativa* L.) variety. Paper presented at Folk botanical wisdom: Towards global markets the 47th annual meeting of society for economic botany, 5-9 June 2006, Chiang Mai Thailand. **(Poster**

presentation)

Pusadee T., Chiang Y. C., Schaal A. B., Rerkasem B. and Jamjod S. 2006. Genetic structure of a local Thai rice (*Oryza sativa* L.) variety. Paper presented at

Royal Golden Jubilee Ph.D Congress VII organized by Thailand Research Fund. Pattaya, Thailand. 20-22 April 2006. (**Best oral presentation award**)

Pusadee T., Chiang Y. C., Schaal A. B., Rerkasem B. and Jamjod S. 2006. Genetic structure of a local Thai rice (*Oryza sativa* L.) variety. Paper presented at the national graduated school (**Best poster presentation award**)

Pusadee T., Phaokrueng A., Jindalouang R., Sirabanchongkran A., Coffey K., Rerkasem B., and Jamjod S. 2006. Genetic variation in a seed exchange network of a local rice variety, Muey Nawng. The Ten International congress of Ethnobiology (ICE2006). Chiang Rai. Thailand. 5-9 November 2006. (**Poster presentation**)

Pusadee T., Rerkasem B. and S. Jamjod. 2005. Genetic diversity of common wild rice in Thailand. Paper presented at the 4th Annual Meeting of Senior Scholars Crop Science Groups, Rayong. Thailand. 26-27 October 2005. (**Oral presentation**)

Pusadee T., Chiang Y. C., Schaal A. B., Rerkasem B. and S. Jamjod. 2005. Genetic structure of a local Thai rice (*Oryza sativa* L.) variety. Paper presented at the international symposium on Diversity, Management, Protection and Utilization of Local Rice Germplasm, 1-2 August 2005, Chiang Mai, Thailand. CMUPN*lab* Working Paper VII. (**Oral Presentation**)

Pusadee T., Yu L., Vilaithing T. and Anuntabhochai S. Genomic Mutation Induced by Low Energy Ion Beam in Rice (*Oryza sativa* var. *indica*) KDML105 สัมมนาวิชาการพันธุศาสตร์ ครั้งที่ 13: พันธุศาสตร์กับการพัฒนาที่ยั่งยืน Genetics and Sustainable Development, มหาวิทยาลัยนเรศวร จังหวัดพิษณุโลก, 5-7 มิถุนายน 2546, หน้า 226-231. (**Poster Presentation**)

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