



Supplementary Information

Elemental Analysis of Wines from South America and their Classification According to Country

Fabrina R. S. Bentlin,^a Fernando H. Pulgati,^b Valderi L. Dressler^c and Dirce Pozebon^{*,a}

^aInstituto de Química and ^bInstituto de Matemática, Universidade Federal do Rio Grande do Sul, Av. Bento Gonçalves 9500, 91501-970 Porto Alegre-RS, Brazil

^cDepartamento de Química, Universidade Federal de Santa Maria, 97105-900 Santa Maria-RS, Brazil

Table S1. Concentrations (in $\mu\text{g L}^{-1}$) range, means (in bold) and standard deviations (in parenthesis) of minor and trace elements found in the wines. Concentrations of K, P, Mg, Ca and Na are in mg L^{-1} . Those wines marked with * only one sample was analysed

Wine	K	P	Mg	Ca	Na	Sr	Fe	Al	Mn	Rb
Chile/Cabernet	898-1230 1054 (161)	542-849 642 (133)	111-124 116 (53)	50-80 61 (12)	3-13 8 (4)	551-995 669 (185)	1770-4849 3373 (1547)	388-1676 1118 (468)	832-3270 1601 (979)	3377-4973 3969 (698)
Uruguay/Cabernet	502-852 618 (159)	525-597 578 (35)	79-85 83 (3)	40-67 51 (13)	17-40 24 (11)	520-847 724 (149)	907-1629 1261 (394)	230-394 327 (72)	1251-1867 1455 (282)	3108-3574 3246 (219)
Argentina/Cabernet	1184-1316 1244 (67)	534-895 665 (200)	92-108 101 (8)	48-71 60 (11)	20-55 39 (18)	697-991 844 (147)	1938-2271 2068 (178)	694-805 744 (56)	873-982 911 (62)	557-1247 905 (345)
Brazil/Cabernet	1068-1487 1222 (160)	350-552 476 (81)	84-98 90 (5)	62-84 74 (11)	14-69 34 (24)	365 -1382 771 (392)	454-1918 1254 (736)	296 -1130 572 (347)	1217-3232 2155 (747)	2348-7644 4804 (1977)
Argentina/Malbec	827 -1087 1013 (108)	627-900 713 (107)	100-116 107 (7)	57-79 66 (9)	10-63 32 (22)	705-1070 902 (151)	1387-2099 1824 (323)	486 -1208 703 (319)	798 -1125 1015 (133)	523-865 669 (139)
Uruguay/Malbec	908	554	85	62	55	842	3177	946	706	3072
Brazil/Malbec	938 -1187 1062 (176)	407 -572 489 (117)	87 -95 91 (4)	49 -51 50 (1)	56-62 59 (3)	593-1178 886 (414)	857-1015 936 (112)	530 -850 690 (226)	1761-1957 1859 (139)	5332-5391 5362 (42)
Chile/Malbec	1078-1117 1097 (27)	503-1358 930 (604)	105-113 109 (6)	28-49 38 (14)	3-16 10 (8)	760-846 803 (61)	2033-2078 2056 (32)	443 -653 548 (148)	2273-2545 2509 (192)	4264-4387 4326 (87)
Brazil/Merlot	1094-1300 1203 (104)	449-634 535 (93)	82-103 94 (11)	58-83 72 (13)	13-23 19 (5)	478-829 640 (177)	516-2098 1318 (791)	548 -1014 818 (242)	1784 -2407 2194 (355)	3253-6343 4970 (1573)
Argentina/Merlot	987 -1237 1112 (177)	329-661 495 (235)	97-110 104 (9)	65 -67 66 (1)	22-38 33 (6)	887-983 935 (68)	1227-1567 1397 (240)	555-695 625 (99)	641 -766 704 (88)	585-658 622 (52)
Chile/Merlot	955-1395 1094 (260)	559-997 718 (242)	99-117 108 (9)	51 -56 53 (2)	8-49 23 (22)	425-885 638 (232)	2231-2828 2524 (299)	765 -921 861 (84)	892 -975 938 (42)	1110- 3613 1986 (1410)
Uruguay/Merlot	895-1439 1167 (272)	545-595 567 (35)	84 -88 86 (2)	62 -75 68 (6)	19 -55 37 (18)	830-857 844 (14)	2400-2728 2564 (232)	801 -882 842 (41)	723 -1193 958 (235)	2729-3070 2900 (170)
Chile/Carmenere	1085	886	116	65	23	606	625	780	1096	5935
Chile/Shiraz	1340	302	116	73	10	1008	2327	182	840	2568
Chile/Pinot Noir	1048	217	106	68	9	580	3038	177	590	2237
Uruguay/Tannat	1126-1856 1417 (387)	564-612 582 (26)	79-81 80 (1)	73-107 88 (17)	17-67 40 (25)	897-1194 1070 (154)	398-3267 1511 (1539)	897-981 945 (43)	1043-1894 1351 (472)	2344-3813 3069 (735)

*e-mail: dircepoz@iq.ufrgs.br

Tabela S1. Continued

Wine	K	P	Mg	Ca	Na	Sr	Fe	Al	Mn	Rb
Uruguay/Shiraz*	195	595	87	102	14	1228	2827	871	1382	3965
Uruguay/Pinot Noir*	1255	597	80	78	46	948	785	1062	1119	2828
Argentina/Assemblage*	976	773	105	39	7	615	2285	613	984	1138
Argentina/Pinot Noir*	1541	538	98	98	23	892	908	673	1004	1235
Argentina/Shiraz*	1703	505	107	79	8	1400	2003	682	919	709
Brazil/Tannat*	1636	543	106	81	33	1014	1511	439	3295	5114
Brazil/Pinot Noir*	1222	544	901	59	12	585	1318	1030	1649	5215
Brazil/Bahia/Shiraz*	1350	509	89	71	8	637	2151	758	1052	2004
Brazil/Isabel*	893	368	90	75	2	559	1633	602	2434	4646
Brazil/Bordô*	890	390	100	978	4	507	1618	367	2273	3557
Wine	Zn	Ba	Cu	Ti	V	Li	Mo	Cr	Ni	As
Chile/Cabernet	214-926 592 (324)	133-195 155 (24)	64-177 113 (45)	101-171 136 (26)	21-137 65 (55)	7-14 11 (4)	2-91 31 (36)	2-22 13 (9)	3-16 12 (5)	4-23 12 (7)
Uruguay/Cabernet	337-818 526 (209)	142-184 168 (18)	124-247 170 (54)	75-182 141 (47)	19-88 54 (35)	19-30 25 (6)	3-5 4 (1)	17-25 20 (4)	27-43 34 (7)	3-21 11 (8)
Argentina/Cabernet	591 -685 630 (49)	122-410 229 (158)	20-249 149 (117)	132-158 149 (15)	21-67 43 (23)	175-283 226 (54)	5-19 12 (7)	15-31 25 (9)	15-42 28 (13)	11-15 13 (2)
Brazil/Cabernet	184-681 412 (189)	117-303 244 (73)	38-56 49 (7)	36-161 93 (50)	2-52 16 (21)	3-13 6 (4)	1-12 5 (4)	9-37 17 (12)	19-44 28 (10)	< 0.5-8 4 (3)
Argentina/Malbec	460-1239 800 (299)	100-158 134 (26)	23-133 107 (73)	111-168 145 (25)	< 0.9-80 34 (41)	71-354 173 (112)	1-10 6 (4)	6-37 23 (12)	20-38 29 (8)	4-28 14 (10)
Uruguay/Malbec	737	525	1290	179	42	21	5.5	17	33	8.5
Brazil/Malbec	308-530 419 (157)	432-481 457 (35)	28-161 95 (94)	79-112 96 (23)	3-5 4 (1)	3-5 4 (1)	1-4 3 (2)	20-43 31 (16)	11-18 15 (4)	1.7-2.0 1.8 (0.3)
Chile/Malbec	544-1181 863 (450)	452-513 483 (43)	73-77 75 (3)	124-179 152 (39)	29-83 56 (38)	5-11 8 (4)	3-23 13 (14)	24-32 28 (6)	3-28 16 (18)	5-16 11 (8)
Brazil/Merlot	232-891 619 (344)	279-675 425 (218)	39 -115 80 (38)	80-180 127 (57)	15-31 21 (9)	5-14 9 (5)	3-9 5 (3)	5-13 10 (4)	19-39 29 (10)	5-10 8 (3)
Argentina/Merlot	561-823 692 (185)	305-341 323 (25)	54-76 65 (15)	131-157 144 (18)	1-50 26 (51)	169-184 177 (11)	3-8 5 (3)	28-31 29 (1)	22-38 30 (11)	7-20 14 (7)
Chile/Merlot	670-1359 933 (372)	42-53 47 (5)	95-346 186 (130)	145-186 161 (22)	40-281 139 (126)	9-14 11 (3)	4-32 14 (16)	14-61 34 (24)	26-28 27 (1)	13 -79 35 (38)
Uruguay/Merlot	231-737 484 (253)	98-115 107 (8)	86-1210 648 (562)	121-144 133 (12)	64-70 68 (2)	21-49 35 (14)	4-6 5 (1)	5 -12 9 (4)	25-59 42 (17)	13 -14 13 (1)
Chile/Carmenere	923	105	290	165	35.1	3.19	5.41	55.1	23.9	10.1
Chile/Shiraz	174	108	123	153	42.5	4.31	4.67	12.4	24.3	11.2
Chile/Pinot Noir	186	121	98	70.2	44.3	3.92	6.84	10.6	14.7	13.9
Uruguay/Tannat	390-890 665 (254)	176-212 191 (19)	20.8-196 101 (88)	116-184 140 (38)	37-99 61 (33)	18-42 32 (10)	4-8 6 (2)	15-57 31 (23)	29-47 40 (8)	10-14 12 (2)
Uruguay/Shiraz*	358	162	182	157	34.8	20.9	4.20	21.2	48.4	13.8
Uruguay/Pinot Noir*	140	159	89	136	82.6	29.4	6.03	23.6	38.1	17.3
Argentina/Assemblage*	618	52.7	30.3	119	11.5	127	1.43	68.4	26.6	10.5
Argentina/Pinot Noir*	155	132	64	168	66.9	90.3	7.47	15.2	12.3	18.5
Argentina/Shiraz*	381	96	132	33	42.8	345	11.5	44.9	18.7	17.3
Brazil/Tannat*	444	293	76	144	62.9	27.3	13.8	37.1	40.9	15.1
Brazil/Pinot Noir*	499	91.1	124	156	76.5	9.85	11.4	50.2	42.0	15.8
Brazil/Bahia/Shiraz*	278	100	134	145	62.8	4.04	21.0	48.1	22.5	17.2
Brazil/Isabel*	767	479	118	118	74.0	3.75	9.53	26.5	11.5	15.6
Brazil/Bordô*	552	122	222	286	7.06	2.23	2.50	28.9	5.42	2.24

Tabela S1. Continued

Wine	Pb	Co	Se	Sn	Sb	Cd	Ag	Tl	Bi	Be
Chile/Cabernet	2-28 13 (11)	2-12 5 (4)	< 0.25-2 0.8 (1)	0.3-0.9 0.5 (0.2)	0.3-4 1.2 (1.6)	< 0.01-1 0.2 (0.5)	< 0.05-1 0.4 (0.5)	0.1-0.3 0.2 (0.1)	1-2 1 (1)	< 0.01-0.5 0.2 (0.2)
Uruguay/Cabernet	9-11 10 (1)	3-7 5 (2)	< 0.25-2 1 (1)	< 0.07	0.2-1.1 0.5 (0.4)	< 0.01-0.3 0.1 (0.2)	< 0.05-0.1 0.03 (0.05)	0.5-1 0.7 (0.3)	0.1-0.3 0.2 (0.1)	< 0.01-0.5 0.2 (0.3)
Argentina/Cabernet	2-30 19 (15)	3-7 5 (2)	< 0.25-2 1 (1)	1.6-2.0 1.8 (0.2)	0.2-1.4 0.8 (0.5)	0.4-0.4 0.4 (0)	< 0.05-0.4 0.2 (0.2)	0.1-0.2 0.1 (0.1)	< 0.02-0.1 0.04 (0.05)	0.1-0.3 0.2 (0.1)
Brazil/Cabernet	4-22 13 (8)	2-5 4 (1)	< 0.25-2 1 (1)	< 0.07-19 10 (9)	0.04-0.6 0.3 (0.2)	< 0.01-0.6 0.2 (0.3)	< 0.05	0.6-4 2 (1)	< 0.02	< 0.01-1 0.8 (0.4)
Argentina/Malbec	2-20 15 (11)	2-4 3 (1)	< 0.25-3 1 (1)	0.3 – 2 1 (1)	0.2-0.8 0.4 (0.3)	0.2-0.6 0.4 (0.2)	< 0.05	0.1-0.2 0.1 (0.1)	< 0.02-0.6 0.3 (0.3)	< 0.01-0.6 0.3 (0.2)
Uruguay/Malbec	82	3.1	< 0.25	19	1.18	0.45	0.07	0.55	< 0.02	0.7
Brazil/Malbec	< 0.06-10 5 (6)	3-4 3.5 (0.5)	< 0.25-2 1 (2)	< 0.07	0.6-0.7 0.6 (0.1)	< 0.01-0.4 0.2 (0.2)	< 0.05-0.2 0.1 (0.1)	1-5 3 (2)	< 0.02	0.5-0.9 0.7 (0.2)
Chile/Malbec	4-9 7 (3)	3-4 3 (1)	< 0.25	< 0.07	0.2-0.4 0.3 (0.1)	< 0.01-0.2 0.1 (0.1)	< 0.05-0.1 0.1 (0.1)	0.4-0.6 0.5 (0.1)	< 0.02-0.1 0.1 (0.1)	0.2-0.7 0.5 (0.2)
Brazil/Merlot	5-25 17 (11)	3-8 5 (3)	< 0.25-6 3 (3)	< 0.07-5 3 (2)	0.3-3 1 (2)	< 0.01 -0.4 0.2 (0.2)	< 0.05	1.0-1.9 1.5 (0.4)	< 0.02	0.6-2.0 1.2 (0.8)
Argentina/Merlot	21-27 24 (3)	3.1-2.9 3 (0.1)	< 0.25-6 3 (4)	3-3 3 (0)	0.330 0.350	0.1 -0.6 0.4 (0.3)	< 0.05	0.1 -0.1 0.1 (0)	< 0.02-0.4 0.2 (0.2)	0.3-0.5 0.4 (0.1)
Chile/Merlot	3-23 14 (9)	2.9-3.0 3 (0.1)	< 0.25-2 0.7 (1)	< 0.07-1 0.7 (0.6)	0.3-0.5 0.4 (0.1)	< 0.01 -6 2 (4)	< 0.05 -1 0.5 (0.5)	0.2-0.2 0.2 (0)	< 0.02-1.4 0.7 (0.7)	< 0.01-0.2 0.1 (0.1)
Uruguay/Merlot	35-80 57 (23)	2-3 2 (1)	< 0.25-1 0.4 (0.5)	< 0.07-24 12 (12)	0.9-1.3 1.1 (0.3)	< 0.01-0.5 0.1 (0.3)	< 0.05	0.6 -0.6 0.6 (0)	< 0.02	< 0.01-0.5 0.2 (0.3)
Chile/Carmenere	7.03	3.12	< 0.25	< 0.07	0.30	0.17	0.29	0.41	0.76	< 0.01
Chile/Shiraz	3.17	3.41	< 0.25	< 0.07	0.23	< 0.01	< 0.05	0.25	0.68	< 0.01
Chile/Pinot Noir	5.97	3.53	< 0.25	< 0.07	0.29	< 0.01	< 0.05	0.29	0.58	< 0.01
Uruguay/Tannat	9-28 19 (10)	3-6 4 (2)	< 0.25-1 0.4 (0.6)	< 0.07	0.3-0.3 0.3 (0)	< 0.01-0.5 0.2 (0.3)	< 0.05	0.4-1.1 0.8 (0.4)	< 0.02-1 0.6 (0.4)	< 0.01-0.2 0.1 (0.1)
Uruguay/Shiraz*	13.2	5.30	< 0.25	< 0.07	0.22	< 0.01	< 0.05	1.27	0.63	< 0.01
Uruguay/Pinot Noir*	7.95	2.72	< 0.25	< 0.07	0.23	< 0.01	< 0.05	0.68	0.57	< 0.01
Argentina/Assemblage*	52.9	3.47	2.05	< 0.07	0.35	0.18	< 0.05	0.14	0.80	0.180
Argentina/Pinot Noir*	9.23	2.62	< 0.25	< 0.07	0.24	0.43	< 0.05	0.17	< 0.02	< 0.01
Argentina/Shiraz*	15.3	2.28	< 0.25	< 0.07	2.48	< 0.01	< 0.05	0.10	< 0.02	< 0.01
Brazil/Tannat*	4.49	5.39	4.92	< 0.07	0.02	< 0.01	< 0.05	2.99	< 0.02	2.667
Brazil/Pinot Noir*	5.39	4.59	< 0.25	< 0.07	1.37	0.47	< 0.05	3.36	0.92	0.900
Brazil/Bahia/Shiraz*	4.43	4.78	1.06	< 0.07	1.05	0.42	< 0.05	1.09	0.27	0.391
Brazil/Isabel*	5.20	7.23	< 0.25	< 0.07	1.44	0.17	< 0.05	1.80	0.23	0.452
Brazil/Bordô*	20.4	5.58	1.83	1.82	0.27	< 0.01	< 0.05	3.46	0.23	0.550

Tabela S1. Continued

Wine	U	La	Ce	Pr	Nd	Sm	Eu	Gd	Tb
Chile/Cabernet	< 0.02-0.4 0.2 (0.1)	0.2-3 1 (1)	0.5-2.5 1 (1)	< 0.02-0.2 0.1 (0.1)	< 0.02-1 0.3 (0.4)	< 0.02-0.09 0.05 (0.04)	< 0.01-0.1 0.03 (0.04)	< 0.01-0.1 0.08 (0.04)	< 0.002-0.01 0.01 (0.01)
Uruguay/Cabernet	0.2-0.5 0.3 (0.1)	< 0.02-0.5 0.1 (0.2)	0.3-0.7 0.5 (0.2)	< 0.02 -0.1 0.08 (0.02)	< 0.02 0.03 (0.06)	< 0.02-0.1 0.03 (0.06)	< 0.01-0.05 0.02 (0.03)	0.06-0.1 0.07 (0.03)	< 0.002-0.01 0.04 (0.07)
Argentina/Cabernet	0.2-2 1.4 (1.1)	0.4-1 0.7 (0.3)	0.8-1 0.9 (0.1)	0.1-0.3 0.2 (0.1)	0.1-0.5 0.3 (0.2)	0.05-0.09 0.07 (0.02)	< 0.008	0.07-0.2 0.1 (0.1)	< 0.002
Brazil/Cabernet	< 0.02-0.5 0.1 (0.2)	< 0.02 -1 0.6 (0.5)	0.5-2 1 (0.5)	< 0.02-0.2 0.1 (0.1)	< 0.02	< 0.02-0.2 0.1 (0.1)	< 0.01-0.06 0.03 (0.03)	0.06-0.2 0.15 (0.05)	< 0.002-0.02 0.01 (0.01)
Argentina/Malbec	0.2-2.2 1.1 (0.7)	0.4-1.6 0.9 (0.5)	0.4-1 0.6 (0.3)	< 0.02-0.1 0.07 (0.02)	< 0.02-0.3 0.1 (0.1)	0.05-0.09 0.07 (0.02)	< 0.01	< 0.01-0.08 0.06 (0.02)	< 0.002
Uruguay/Malbec	1.2	0.3	0.5	0.06	< 0.02	0.050	< 0.01	0.05	< 0.002
Brazil/Malbec	< 0.02-0.2 0.1 (0.1)	0.4-1.7 1.0 (0.7)	0.4-0.4 0.4 (0)	< 0.02-0.06 0.05 (0.01)	< 0.02	< 0.02-0.04 0.02 (0.02)	< 0.01	< 0.01 -0.04 0.02 (0.02)	< 0.002
Chile/Malbec	0.4-0.6 0.5 (0.1)	0.2-0.6 0.4 (0.2)	0.3-0.9 0.6 (0.3)	< 0.02-0.1 0.1 (0.1)	< 0.02	< 0.02-0.07 0.04 (0.03)	< 0.01	< 0.01-0.07 0.04 (0.03)	< 0.002 0.012
Brazil/Merlot	< 0.02-0.3 0.2 (0.1)	0.5-0.7 0.6 (0.1)	0.9-1.4 1.1 (0.3)	< 0.02-0.2 0.1 (0.1)	< 0.02-0.6 0.3 (0.3)	< 0.02-0.1 0.1 (0.01)	< 0.01	0.06-0.1 0.1 (0.04)	< 0.002-0.02 0.01 (0.01)
Argentina/Merlot	1.0-1.5 1.3 (0.3)	0.3-0.4 0.3 (0.1)	0.5-0.6 0.5 (0.1)	< 0.02	0.2-0.2 0.2 (0)	0.03-0.04 0.03 (0.01)	< 0.01	0.04-0.05 0.04 (0.01)	< 0.002
Chile/Merlot	0.3-1.2 0.6 (0.5)	0.3-2.8 1.2 (1.4)	0.3-3.3 1.4 (1.6)	< 0.02-1.5 0.6 (0.8)	< 0.02-1 0.4 (0.5)	< 0.02 -1 0.4 (0.6)	< 0.01 -0.6 0.2 (0.4)	0.05 -0.2 0.1 (0.1)	< 0.002
Uruguay/Merlot	0.3 -1.1 0.7 (0.6)	0.3-0.3 0.3 (0)	0.4-0.5 0.4 (0.1)	< 0.02-0.07 0.3 (0.4)	< 0.02-0.2 0.1 (0.1)	< 0.02-0.05 0.02 (0.03)	< 0.01	0.06-0.06 0.06 (0)	< 0.002
Chile/Carmenere	0.15	<0.02	0.30	< 0.02	< 0.001	< 0.02	< 0.008	< 0.01	< 0.002
Chile/Shiraz	0.27	0.30	0.32	< 0.02	< 0.02	0.07	0.01	0.06	< 0.002
Chile/Pinot Noir	< 0.02	0.83	0.62	< 0.02	< 0.02	0.07	0.02	0.06	< 0.002
Uruguay/Tannat	0.4-0.8 0.6 (0.2)	0.2-0.4 0.3 (0.1)	0.2-0.8 0.5 (0.3)	< 0.02-0.1 0.05 (0.03)	< 0.02-0.4 0.2 (0.2)	0.07-0.09 0.08 (0.01)	< 0.01	0.06-0.08 0.07 (0.01)	< 0.002
Uruguay/Shiraz*	0.97	0.88	0.35	< 0.02	< 0.02	0.07	0.02	0.06	< 0.002
Uruguay/Pinot Noir*	1.31	0.80	0.67	< 0.02	< 0.02	0.07	0.02	0.06	< 0.002
Argentina/Assemblage*	2.09	0.26	0.33	0.05	0.22	0.07	< 0.01	< 0.01	< 0.002
Argentina/Pinot Noir*	1.04	0.23	0.56	< 0.02	< 0.02	0.17	0.02	0.16	< 0.002
Argentina/Shiraz*	< 0.02	0.63	0.87	0.10	0.37	0.07	0.02	0.06	< 0.002
Brazil/Tannat*	< 0.02	1.61	1.91	0.61	< 0.02	0.07	0.02	0.06	< 0.002
Brazil/Pinot Noir*	0.33	0.80	1.68	0.22	< 0.02	0.17	0.05	0.16	< 0.002
Brazil/Bahia/Shiraz*	0.18	1.47	3.02	0.39	1.44	0.23	0.06	0.19	< 0.002
Brazil/Isabel*	0.18	0.64	0.950	0.11	0.34	0.09	0.05	0.07	0.01
Brazil/Bordô*	< 0.02	0.48	1.15	0.13	0.55	0.16	0.04	0.14	0.02

Tabela S1. Continued

Wine	Dy	Ho	Er	Tm	Yb	Lu
Chile/Cabernet	< 0.01-0.03 0.01 (0.02)	< 0.002	< 0.002-0.06 0.02 (0.04)	< 0.002	< 0.005	< 0.002-0.02 0.01 (0.01)
Uruguay/Cabernet	< 0.01-0.08 0.04 (0.03)	< 0.002	< 0.002-0.02 0.01 (0.01)	< 0.002	< 0.005	< 0.002
Argentina/Cabernet	0.06-0.08 0.07 (0.01)	< 0.002-0.02 0.01 (0.01)	0.04-0.05 0.04 (0.01)	< 0.002	< 0.005-0.04 0.01 (0.03)	< 0.002
Brazil/Cabernet	< 0.01-0.1 0.09 (0.06)	< 0.002-0.05 0.02 (0.02)	< 0.002-0.1 0.07 (0.05)	< 0.002-0.02 0.01 (0.01)	< 0.005-0.1 0.05 (0.06)	< 0.002-0.02 0.01 (0.01)
Argentina/Malbec	0.03-0.08 0.06 (0.02)	< 0.002-0.01 0.01 (0.01)	< 0.002-0.05 0.03 (0.02)	< 0.002-0.01 0.01 (0.01)	< 0.005	< 0.002-0.01 0.01 (0.01)
Uruguay/Malbec	0.05	0.01	0.04	< 0.002	< 0.005	< 0.002
Brazil/Malbec	< 0.01-0.03 0.01 (0.02)	< 0.002	< 0.002-0.03 0.01 (0.02)	< 0.002	< 0.005	< 0.002
Chile/Malbec	< 0.01-0.07 0.04 (0.03)	< 0.002	0.01-0.05 0.03 (0.02)	< 0.002	< 0.005	< 0.002-0.01 0.01 (0.01)
Brazil/Merlot	< 0.01-0.1 0.08 (0.02)	< 0.002-0.03 0.01 (0.02)	< 0.002-0.07 0.05 (0.03)	< 0.002-0.01 0.01 (0.01)	< 0.005-0.08 0.03 (0.04)	< 0.002-0.01 0.01 (0.01)
Argentina/Merlot	0.04-0.04 0.04 (0)	< 0.002-0.01 0.01 (0.01)	0.03 -0.03 0.03 (0)	< 0.002	0.03-0.04 0.03 (0.01)	< 0.002-0.01 0.01 (0.01)
Chile/Merlot	< 0.01-0.2 0.1 (0.1)	< 0.002	< 0.002-0.1 0.05 (0.05)	< 0.002-0.01 0.01 (0.01)	< 0.005	< 0.002-0.02 0.01 (0.01)
Uruguay/Merlot	< 0.01-0.06 0.04 (0.02)	< 0.002-0.01 0.01 (0.01)	0.02-0.04 0.03 (0.01)	< 0.002	< 0.005-0.04 0.02 (0.02)	< 0.002
Chile/Carmenere	0.026	< 0.002	0.02	0.01	< 0.005	< 0.002
Chile/Shiraz	< 0.01	< 0.002	< 0.002	< 0.002	< 0.005	< 0.002
Chile/Pinot Noir	< 0.01	< 0.002	< 0.002	< 0.002	< 0.005	< 0.002
Uruguay/Tannat	< 0.01-0.1 0.04 (0.06)	< 0.002	< 0.002	0.010	< 0.005	< 0.002-0.01 0.01 (0.01)
Uruguay/Shiraz*	< 0.01	< 0.002	< 0.002	< 0.002	< 0.005	< 0.002
Uruguay/Pinot Noir*	< 0.01	< 0.002	< 0.002	< 0.002	< 0.005	< 0.002
Argentina/Assemblage*	0.04	< 0.002	< 0.002	< 0.002	< 0.005	0.01
Argentina/Pinot Noir*	0.13	0.03	0.06	0.01	< 0.005	0.0182
Argentina/Shiraz*	< 0.01	< 0.002	< 0.002	< 0.002	< 0.005	< 0.002
Brazil/Tannat*	< 0.01	< 0.002	< 0.002	< 0.002	< 0.005	< 0.002
Brazil/Pinot Noir*	0.13	0.03	0.06	0.01	< 0.005	0.02
Brazil/Bahia/Shiraz*	0.20	< 0.002	0.12	0.02	< 0.005	0.03
Brazil/Isabel*	0.17	< 0.002	0.04	0.01	< 0.005	0.01
Brazil/Bordô*	< 0.01	0.02	0.09	0.01	< 0.005	0.01