Table S18 Accuracy of WP prediction for environment E4 with QP and GWP in CV2

	LL				LW			
	SE		ME		SE		ME	
PopId	QP[a]	GWP[b]	QP[c]	GWP[d]	QP[a]	GWP[b]	QP[c]	GWP[d]
1	0.31(2.4)	0.46(0.48)	0.47(3.4, 0.52)	0.61(0.30, 0.33)	0.25(2.5)	0.51(1.04)	0.25(1.6, **0.00**)	0.62(1.48, 0.22)
2	0.05(2.0)	0.30(5.00)	0.08(0.8, **0.60**)	0.52(5.50, 0.73)	0.20(2.5)	0.46(1.30)	0.25(1.8, 0.25)	0.62(1.48, 0.35)
3	0.08(1.3)	0.27(2.38)	0.06(0.8, **-0.25**)	0.36(5.00, 0.33)	0.29(2.6)	0.41(0.41)	0.40(2.6, 0.38)	0.61(0.52, 0.49)
4	0.31(3.1)	0.53(0.71)	0.43(3.2, 0.39)	0.65(0.51, 0.23)	0.33(2.8)	0.52(0.58)	0.25(1.6, -0.24)	0.63(1.52, 0.21)
5	0.07(1.8)	0.37(4.29)	0.18(1.9, 1.57)	0.55(2.06, 0.49)	0.07(2.2)	0.44(5.29)	0.13(0.9, 0.86)	0.62(3.77, 0.41)
6	0.22(2.7)	0.47(1.14)	0.31(2.3, 0.41)	0.59(0.90, 0.26)	0.08(1.4)	0.31(2.87)	0.10(1.0, **0.25**)	0.46(3.60, 0.48)
7	0.33(2.6)	0.60(0.82)	0.38(1.9, 0.15)	0.73(0.92, 0.22)	0.38(3.2)	0.61(0.61)	0.35(1.9, **-0.08**)	0.72(1.06, 0.18)
8	0.18(2.2)	0.37(1.06)	0.26(1.7, 0.44)	0.59(1.27, 0.59)	0.28(2.3)	0.40(0.43)	0.37(2.2, 0.32)	0.57(0.54, 0.42)
9	0.10(1.9)	0.33(2.30)	0.18(1.7, 0.80)	0.48(1.67, 0.45)	0.37(2.6)	0.48(0.30)	0.39(1.7, **0.05**)	0.51(0.31, 0.06)
10	0.13(2.2)	0.42(2.23)	0.25(2.1, 0.92)	0.57(1.28, 0.36)	0.26(3.3)	0.62(1.38)	0.32(2.4, 0.23)	0.72(1.25, 0.16)
11	0.16(2.1)	0.29(0.81)	0.37(2.6, 1.31)	0.49(0.32, 0.69)	0.18(2.6)	0.46(1.56)	0.24(1.7, 0.33)	0.60(1.50, 0.30)
12	0.15(2.7)	0.50(2.33)	0.32(2.9, 1.13)	0.64(1.00, 0.28)	0.38(3.4)	0.57(0.50)	0.45(2.8, 0.18)	0.66(0.47, 0.16)
13	0.10(1.3)	0.24(1.40)	0.30(1.6, 2.00)	0.54(0.80, 1.25)	0.16(2.1)	0.42(1.62)	0.28(1.7, 0.75)	0.60(1.14, 0.43)
14	0.06(1.9)	0.35(4.83)	0.19(1.6, 2.17)	0.53(1.79, 0.51)	0.24(2.3)	0.44(0.83)	0.23(1.4, **-0.04**)	0.63(1.74, 0.43)
15	0.21(1.9)	0.37(0.76)	0.23(1.4, **0.10**)	0.57(1.48, 0.54)	0.29(3.0)	0.54(0.86)	0.35(2.5, 0.21)	0.68(0.94, 0.26)
16	0.08(1.3)	0.21(1.62)	0.19(1.2, 1.38)	0.42(1.21, 1.00)	0.30(3.0)	0.54(0.80)	0.43(2.7, 0.43)	0.66(0.53, 0.22)
17	0.12(1.6)	0.35(1.92)	0.13(0.8, **0.08**)	0.48(2.69, 0.37)	0.31(3.3)	0.56(0.81)	0.42(3.5, 0.35)	0.70(0.67, 0.25)
18	0.04(1.3)	0.26(5.50)	0.06(0.6, **0.50**)	0.37(5.17, 0.42)	0.22(2.0)	0.33(0.50)	0.28(1.6, 0.27)	0.45(0.61, 0.36)
19	0.06(1.5)	0.28(3.67)	0.13(1.5, 1.17)	0.45(2.46, 0.61)	0.42(3.4)	0.50(0.19)	0.42(2.1, **0.00**)	0.66(0.57, 0.32)
20	0.11(2.2)	0.47(3.27)	0.14(1.5, 0.27)	0.59(3.21, 0.26)	0.49(2.6)	0.53(0.08)	0.45(2.2, -0.08)	0.67(0.49, 0.26)
21	0.38(3.4)	0.61(0.61)	0.49(3.3, 0.29)	0.69(0.41, 0.13)	0.10(1.8)	0.36(2.60)	0.18(1.7, 0.80)	0.49(1.72, 0.36)
22	0.30(2.3)	0.46(0.53)	0.28(1.4, **-0.07**)	0.55(0.96, 0.20)	0.25(2.8)	0.54(1.16)	0.26(1.6, **0.04**)	0.67(1.58, 0.24)
23	0.26(2.0)	0.39(0.50)	0.29(2.0, 0.12)	0.50(0.72, 0.28)	0.29(3.0)	0.48(0.66)	0.32(2.4, **0.10**)	0.60(0.87, 0.25)
24	0.19(1.9)	0.23(0.21)	0.13(1.1, -0.32)	0.41(2.15, 0.78)	0.31(3.1)	0.46(0.48)	0.44(2.7, 0.42)	0.62(0.41, 0.35)
25	0.02(1.5)	0.24(11.00)	0.12(1.8, 5.00)	0.45(2.75, 0.88)	0.27(2.5)	0.49(0.81)	0.38(2.2, 0.41)	0.54(0.42, 0.10)
Mean	0.16(2.0)	0.38(1.38)	0.24(1.8, 0.49)	0.53(1.23, 0.39)	0.27(2.7)	0.48(0.78)	0.32(2.0, 0.18)	0.61(0.93, 0.28)

[a] In parentheses is the number of QTL identified by QP based on the SE model; [b] In parentheses is the gain in prediction accuracy with GWP over QP based on the SE model; [c] The first value in parentheses is the number of QTL identified by QP based on the ME model; and the second one the gain

with ME over SE for QP; [d] The first value in parentheses is the gain in accuracy with GWP over QP based on the ME model; and the second one is the gain in accuracy with ME over SE using GWP. Bold in parentheses indicates the number is not significant at $\alpha = 0.05$.