Table S1. Genetic parameters with standard errors in parenthesis for hight measurements in four full-sib clonal trials.

Traits	σ_A^2	σ_f^2	σ_c^2	σ_{TotG}^2	σ_P^2	h_i^2	H_i^2
				Nässja			
Ht17	9.75 (2.7)	0.00	16.90 (2.1)	26.60 (2.0)	101.4 (2.2)	0.10 (0.03)	0.26 (0.02)
Ht18	4.40 (3.3)	1.69 (1.35)	20.60 (2.4)	26.70 (2.0)	117.5 (2.3)	0.04 (0.03)	0.23 (0.01)
Ht19	20.2 (5.5)	0.00	18.20 (3.9)	38.50 (3.8)	196.1 (4.3)	0.10 (0.03)	0.20 (0.02)
Tot-Ht16	22.76 (11.3)	4.60 (4.0)	78.42 (8.4)	105.80 (7.6)	410.1 (8.5)	0.06 (0.03)	0.26 (0.02)
Tot-Ht17	50.3 (21.5)	5.37 (6.5)	147.55 (15.4)	203.20 (13.8)	697.9 (15.1)	0.07 (0.03)	0.29 (0.02)
Tot-Ht18	77.51 (38.4)	13.87 (13.0)	252.28 (26.3)	343.70 (22.9)	1138.6 (25.0)	0.07 (0.03)	0.30 (0.02)
Tot-Ht19	136.9 (65.5)	21.40 (21.5)	370.30 (43.2)	528.60 (37.2)	1830.2 (40.1)	0.07 (0.03)	0.29 (0.02)
				Sunnansjö			
Ht17	8.3 (5.6)	3.90 (2.3)	20.90 (3.4)	33.00 (2.7)	153.6 (3.1)	0.05 (0.04)	0.22 (0.02)
Ht18	15.0 (6.6)	2.53 (2.1)	28.73 (4.4)	46.20 (3.9)	227.3 (4.5)	0.07 (0.03)	0.20 (0.01)
Ht19	0.00	8.34 (2.1)	43.4 (3.3)	51.74 (3.9)	257.84 (4.7)	0.00	0.20 (0.01)
Tot-Ht16	26.50 (12.5)	5.04 (4.1)	75.60 (8.8)	107.20 (7.8)	464.4 (9.0)	0.06 (0.03)	0.23 (0.01)
Tot-Ht17	57.05 (30.0)	16.7 (10.7)	152.00 (18.9)	225.80 (16.2)	851.1 (18.0)	0.07 (0.03)	0.27 (0.02)
Tot-Ht18	102.10 (55.5)	32.40 (20.1)	270.90 (34.5)	405.40 (29.2)	1513.9 (32.4)	0.07 (0.04)	0.27 (0.02)
Tot-Ht19	185.20 (87.7)	37.90 (28.5)	462.80 (55.5)	686.00 (47.7)	2538.7 (53.1)	0.07 (0.03)	0.27 (0.01)
				Ängelholm			
Ht17	12.73 (4.48)	2.4 (1.41)	18.87 (2.89)	33.99 (2.61)	145.90 (2.91)	0.09 (0.03)	0.32 (0.02)
Ht18	20.15 (5.29)	0.99 (0.96)	18.52 (3.21)	39.67 (3.0)	138.10 (3.20)	0.15 (0.04)	0.29 (0.02)
Ht19	36.89 (11.55)	4.38 (2.98)	58.79 (7.25)	100.07 (6.57)	314.09 (7.01)	0.12 (0.04)	0.23 (0.01)
Tot-Ht16	61.95 (15.68)	4.21 (2.83)	31.32 (8.72)	97.49 (8.19)	297.38 (8.5)	0.21 (0.05)	0.33 (0.02)
Tot-Ht17	123.73 (34.2)	13.3 (7.64)	88.27 (19.14)	225.31 (17.64)	645.6 (18.3)	0.19 (0.05)	0.35 (0.02)
Tot-Ht18	236.33 (63.0)	21.47 (12.71)	171.3 (34.67)	429.12 (32.10)	1010.1 (32.73)	0.23 (0.05)	0.42(0.02)
Tot-Ht19	400.54 (112.19)	44.92 (24.95)	389.02 (62.04)	834.49 (56.95)	1718.7 (57.73)	0.23 (0.06)	0.49 (0.02)
				Kohagen			
Ht17	22.46 (7.20)	4.13 (2.17)	21.45 (4.51)	48.05 (4.18)	217.81 (4.62)	0.10 (0.03)	0.22 (0.02)
Ht18	110.39 (23.39)	1.71 (2.19)	22.52 (12.65)	134.63 (12.35)	386.16 (12.68)	0.29 (0.05)	0.35 (0.02)
Ht19	36.75 (10.59)	2.2 (2.34)	46.55 (7.06)	85.51 (6.520)	357.85 (7.22)	0.10 (0.03)	0.24 (0.02)
Tot-Ht16	131.85 (31.24)	6.86 (4.54)	19.43 (16.61)	158.16 (15.85)	461.74 (16.22)	0.29 (0.06)	0.34 (0.02)
Tot-Ht17	283.47 (72.68)	26.17 (14.07)	78.56 (38.70)	388.21 (36.20)	1053.9 (36.9)	0.27 (0.06)	0.37 (0.02)
Tot-Ht18	729.72 (168.50)	40.71 (24.50)	159.03 (89.30)	929.50 (85.50)	2269.00 (86.8)	0.32 (0.06)	0.41 (0.02)
Tot-Ht19	1040.83 (241.49)	51.52 (33.89)	344.57 (29.05)	1436.90 (123.30)	3318.00 (125.06)	0.31 (0.06)	0.43 (0.02)

Table S2. Genetic parameters with standard errors in parenthesis for hight measurements in two half-sib clonal trials.

	σ_A^2	σ_N^2	σ_{TotG}^2	σ_p^2	h_i^2	H_i^2
	Nurmijärvi					
Ht18	48.57 (11.01)	20.12 (7.00)	68.68 (6.30)	284.90 (7.17)	0.17 (0.04)	0.24 (0.02)
Ht19	66.78 (13.46)	1.39 (7.75)	68.18 (7.37)	319.51 (8.37)	0.21 (0.04)	0.21 (0.02)
Tot-Ht17	815.95 (177.58)	563.00 (111.04)	1378.10 (101.09)	3143.80 (104.80)	0.26 (0.05)	0.44 (0.02)
Tot-Ht18	1197.30 (257.50)	763.46 (159.40)	1960.80 (145.40)	4429.60 (150.60)	0.27 (0.05)	0.44 (0.02)
Tot-Ht19	1796.11 (378.12)	951.01 (229.16)	2747.10 (210.40)	6362.10 (218.07)	0.28 (0.05)	0.43 (0.02)
	Pori					
Ht18	42.11 (10.85)	23.80 (7.34)	65.91 (6.40)	332.55 (7.71)	0.13 (0.03)	0.20 (0.02)
Ht19	76.19 (17.35)	23.24 (10.80)	99.43 (9.68)	414.14 (10.92)	0.18 (0.04)	0.24 (0.02)
Tot-Ht17	642.20 (166.8)	652.23 (113.4)	1294.40 (98.5)	3570.8 (104.9)	0.18 (0.04)	0.36 (0.02)
Tot-Ht18	983.60 (252.2)	943.90 (170.1)	1927.50 (148)	5342.70 (157.7)	0.18 (0.04)	0.36 (0.02)
Tot-Ht19	1634.96 (434.83)	2047.83 (303.38)	3682.80 (261.61)	9369.60 (276.30)	0.17 (0.04)	0.39 (0.02)

Figure S1. Schematic picture of one the Swedish trials.