

Supplementary Material

Tab. SM1 - Coefficient of determination (R^2) of the linear regressions of 80% bud flush in 2003 based on origin of different seed sources' environmental variables at three garden locations

Garden	Response variable	FFP	MAT	DD	PPT
Sandpoint (ID) (48°N)	Julian day	0.027	0.046	0.121	0.00
	GDD	0.032	0.043	0.121	0.00
Skimikin (SK) (50°N)	Julian day	0.00	0.161	0.250	0.005
	GDD	0.00	0.150	0.242	0.003
Red Rock (RR) (53°N)	Julian day	0.082	0.009	0.00	0.021
	GDD	0.075	0.008	0.00	0.016

[Days of frost free period (FFP), Mean Annual Temperature (MAT), Degree Days above 5 °C (DD>5), Precipitation (PPT), all environmental variables data were collected from Climate BC Model <http://climatemodels.forestry.ubc.ca/climatebc> accessed November 19, 2014 based on 30 year climate normal, 1981-2009]

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Tab. SM2 - Principle component analysis (PCA) of four climate normal variables at province collection locations

Source location climate variables	PC1	PC2	PC3
Precipitation (PPT)	0.142	0.852	-0.423
Days of frost free period (FFP)	-0.514	0.459	0.722
Mean Annual Temperature (MAT)	-0.608	0.047	-0.501
Degree Days above 5 °C (DD>5)	-0.587	-0.243	-0.216

[The highest correlations (Eigenvectors) of the Climate variables with principal components (PC's) are indicated in bold front, all environmental variables data were collected from Climate BC Model <http://climatemodels.forestry.ubc.ca/climatebc> accessed November 19, 2014 based on 30 year climate normal, 1981-2009]

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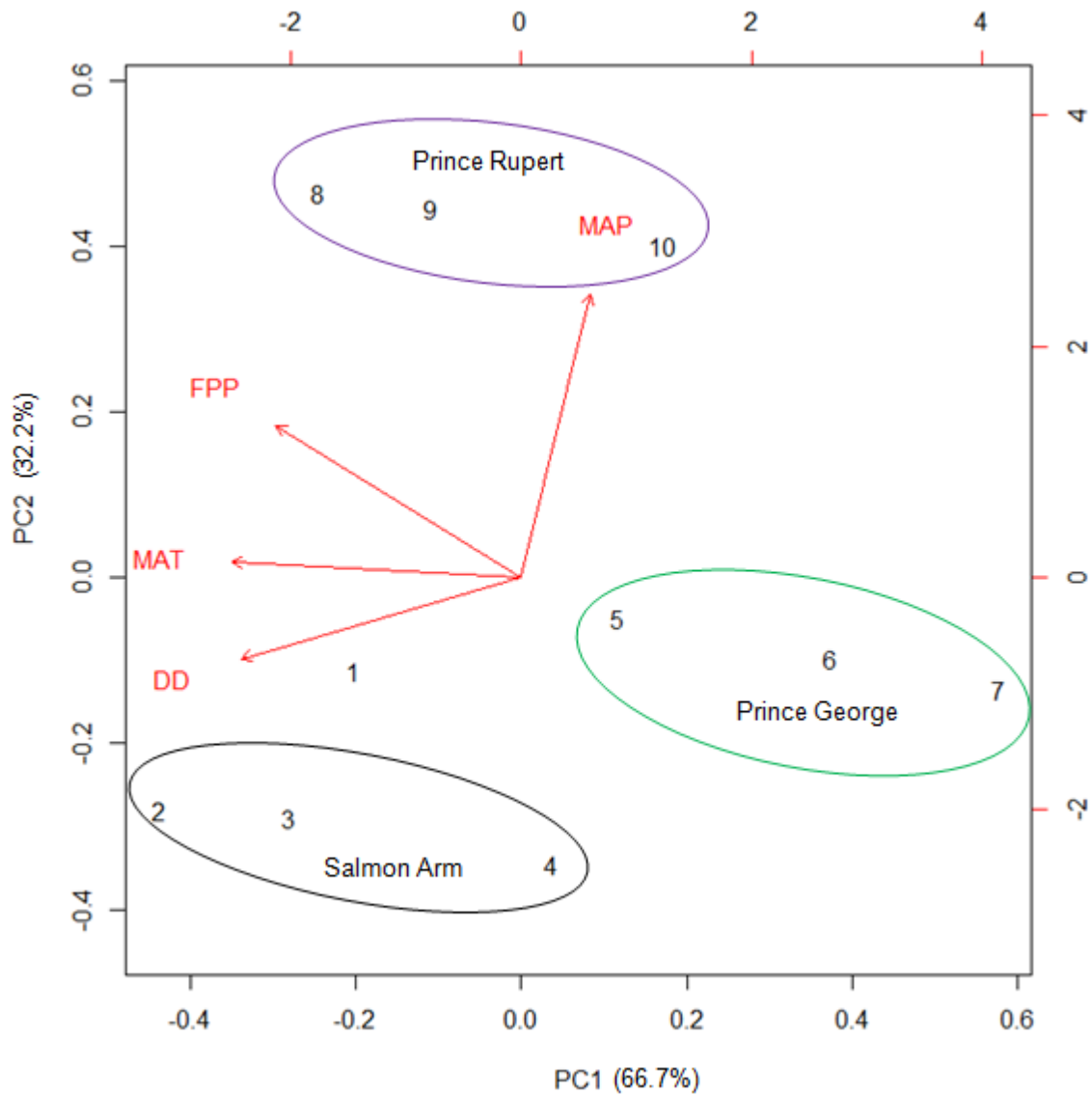


Fig. SM1 - Principle component analysis (PCA) of provenance source location climate variables.