

Figure S1 Relationship between altitude and flavonoid metabolites. The linear regressions were considered significant when P < 0.05.



Figure S2 Relationship between annual mean temperature and flavonoid metabolites. The linear regressions were considered significant when P < 0.05.



Figure S3 Relationship between mean monthly temperature range temperature and flavonoid metabolites. The linear regressions were considered significant when P < 0.05.



Figure S4 Relationship between Isothermality and flavonoid metabolites. The linear regressions were considered significant when P < 0.05.



Figure S5 Relationship between temperature seasonality and flavonoid metabolites. The linear regressions were considered significant when P < 0.05.



Figure S6 Relationship between max temperature of warmest month and flavonoid metabolites. The linear regressions were considered significant when P < 0.05.



Figure S7 Relationship between temperature of coldest month and flavonoid metabolites. The linear regressions were considered significant when P < 0.05.



**Figure S8** Relationship between temperature annual range and flavonoid metabolites. The linear regressions were considered significant when P < 0.05.



Figure S9 Relationship between mean temperature of wettest quarter and flavonoid metabolites. The linear regressions were considered significant when P < 0.05.



**Figure S10** Relationship between mean temperature of driest quarter and flavonoid metabolites. The linear regressions were considered significant when P < 0.05.



**Figure S11** Relationship between mean temperature of warmest quarter and flavonoid metabolites. The linear regressions were considered significant when P < 0.05.



**Figure S12** Relationship between mean temperature of coldest quarter and flavonoid metabolites. The linear regressions were considered significant when P < 0.05.



**Figure S13** Relationship between annual precipitation and flavonoid metabolites. The linear regressions were considered significant when P < 0.05.



Figure S14 Relationship between precipitation of wettest month and flavonoid metabolites. The linear regressions were considered significant when P < 0.05.



Figure S15 Relationship between precipitation of driest month and flavonoid metabolites. The linear regressions were considered significant when P < 0.05.



**Figure S16** Relationship between precipitation seasonality and flavonoid metabolites. The linear regressions were considered significant when P < 0.05.



Figure S17 Relationship between precipitation of wettest quarter and flavonoid metabolites. The linear regressions were considered significant when P < 0.05.



**Figure S18** Relationship between precipitation of driest quarter and flavonoid metabolites. The linear regressions were considered significant when P < 0.05.



Figure S19 Relationship between precipitation of warmest quarter and flavonoid metabolites. The linear regressions were considered significant when P < 0.05.



**Figure S20** Relationship between precipitation of coldest quarter and flavonoid metabolites. The linear regressions were considered significant when P < 0.05.



**Figure S21** Relationship between longitude and flavonoid metabolites. The linear regressions were considered significant when P < 0.05.



Figure S22 Relationship between latitude and flavonoid metabolites. The linear regressions were considered significant when P < 0.05.