

Supplementary material for the article:

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## **Supplementary material**

### **Distribution of elements in seeds of some wild and cultivated fruits.**

#### **Nutrition and authenticity aspects**

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Table S1. Results of determination of elements in reference material ERM-CD281 (rye grass)

Elements	ERM-CD281 (rye grass)		
	Certified value $\pm$ uncertainty* (mg/kg)	Found value $\pm$ uncertainty (mg/kg)	Recovery (%)
As	0.042 $\pm$ 0.010	0.040 $\pm$ 0.012	95.24
Cd	0.120 $\pm$ 0.007	0.125 $\pm$ 0.005	104.17
Cr	24.8 $\pm$ 1.3	24.2 $\pm$ 1.0	97.58
Cu	10.2 $\pm$ 0.5	10.0 $\pm$ 0.4	98.04
Hg	0.0164 $\pm$ 0.0022	0.0149 $\pm$ 0.0030	90.85
Mn	82 $\pm$ 4	80 $\pm$ 3	97.56
Ni	15.2 $\pm$ 0.6	15.0 $\pm$ 0.4	98.68
Pb	1.67 $\pm$ 0.11	1.65 $\pm$ 0.09	98.80
Zn	30.5 $\pm$ 1.1	31.2 $\pm$ 0.9	102.30
	Additional Material Information (g/kg)	Found value (g/kg)	Recovery (%)
Ca	6.3	6.148	97.59
Fe	0.18	0.169	93.89
K	34	33.197	97.64
Mg	1.6	1.516	94.75
Na	4	4.135	103.38
P	2.8	2.751	98.25
S	3.4	3.309	97.32

\*Uncertainty for 95 % confidence level (coverage factor k = 2)

**Table S2.** Instrument operating conditions for ICP-QMS

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Rf power (W)	1548
Gas flows (L/min)	13.9; 1.09; 0.8
Acquisition time	3 x 50s
Points per peak	3
Dwell time (ns)	10
Detector mode	Pulse
Measured isotopes	<sup>75</sup> As, <sup>136</sup> Ba, <sup>111</sup> Cd, <sup>59</sup> Co, <sup>50</sup> Cr, <sup>65</sup> Cu, <sup>202</sup> Hg, <sup>55</sup> Mn, <sup>62</sup> Ni, <sup>207</sup> Pb, <sup>86</sup> Sr, <sup>68</sup> Zn

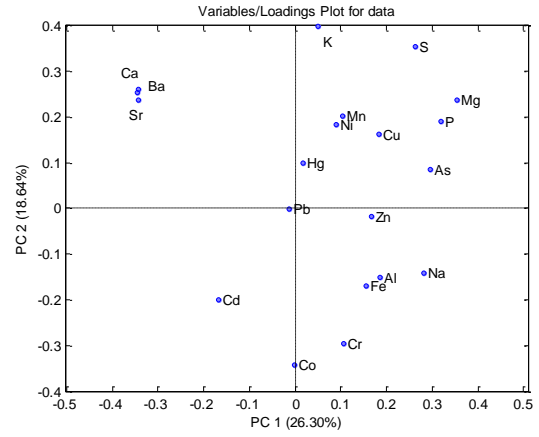
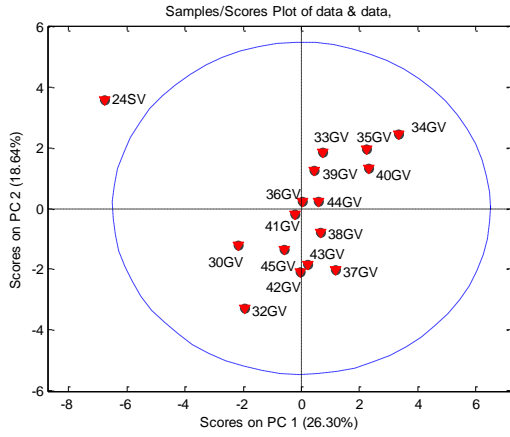
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Table S3. Kruskal–Wallis test – comparison of the medians of unmatched samples

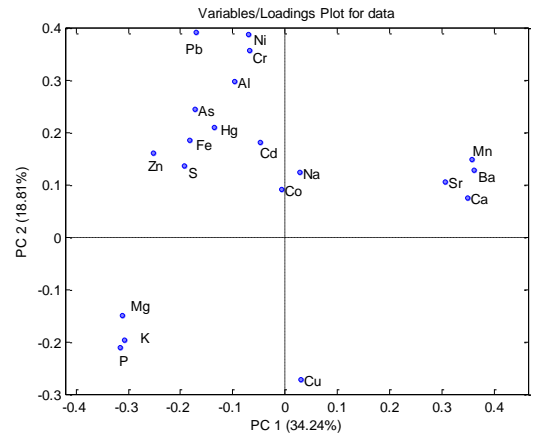
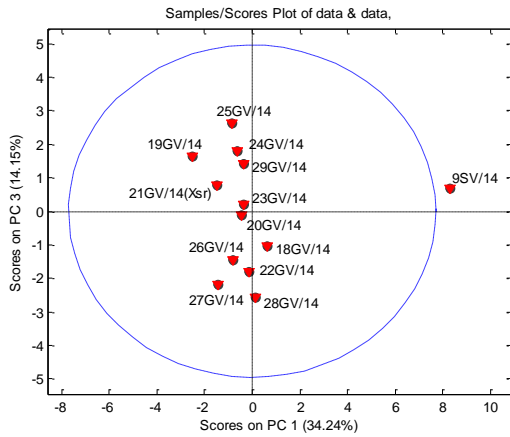
Element	$P^a$	Kruskal-Wallis Multiple Comparison z-test
Al	0.0002	Currant(Blueberry, Strawberry)
As	0.4332	/
Ba	0.0013	Strawberry(Blueberry, Currant, Raspberry)
Ca	<0.0001	Strawberry(Blackberry, Currant, Blueberry, Raspberry) Currant(Blueberry, Raspberry)
Cd	0.1092	/
Co	<0.0001	Strawberry(Blackberry, Currant, Blueberry) Blueberry(Raspberry)
Cr	3.6332	/
Cu	<0.0001	Strawberry(Blackberry, Currant, Blueberry, Raspberry) Currant(Blueberry)
Fe	0.8342	/
Hg	0.0827	/
K	<0.0001	Currant(Blackberry, Blueberry, Raspberry, Strawberry) Strawberry(Blueberry)
Mg	<0.0001	Currant(Blackberry, Blueberry, Raspberry, Strawberry) Strawberry(Blackberry, Blueberry)
Mn	<0.0001	Currant(Blackberry, Blueberry, Raspberry, Strawberry)
Na	0.4201	/
Ni	0.0006	Currant(Blackberry, Blueberry, Strawberry) Raspberry(Blackberry, Strawberry)
P	<0.0001	Currant(Blackberry, Blueberry, Raspberry, Strawberry) Strawberry(Blackberry, Blueberry, Raspberry)
Pb	0.2474	/
S	<0.0001	Currant(Blackberry, Blueberry, Raspberry, Strawberry) Strawberry(Blackberry)
Sr	0.9564	/
Zn	0.0010	Strawberry(Blackberry, Blueberry, Currant)

<sup>a</sup>Differences between two set of data is significant when  $P$  value is less or equal to  $P=0.05$

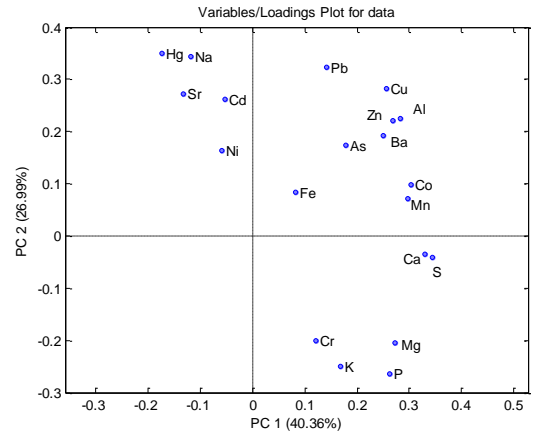
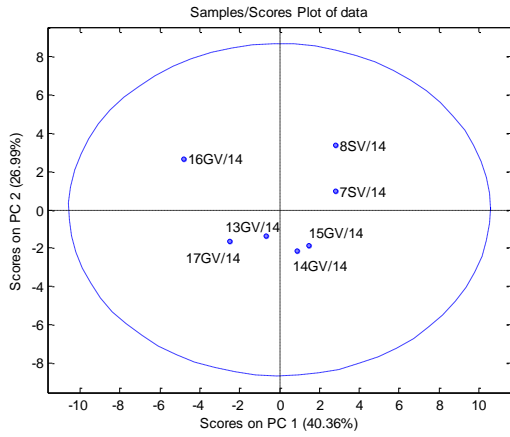
## Strawberry



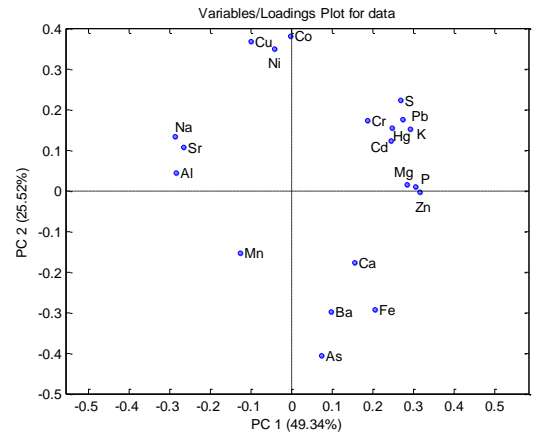
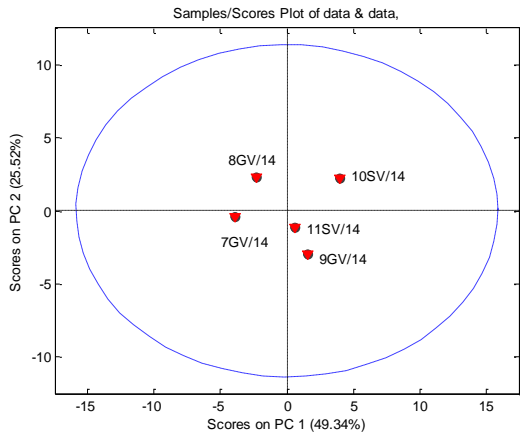
## Currant



## Blueberry



### Blackberry



### Raspberry

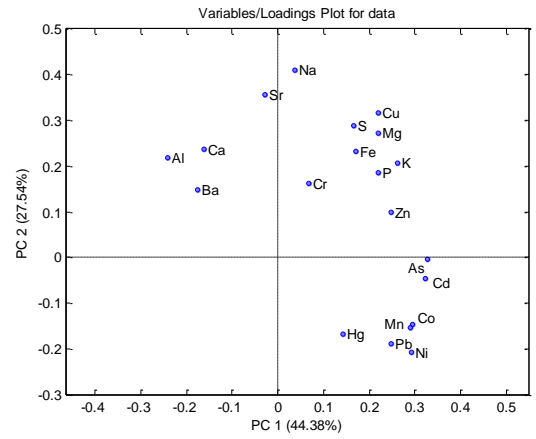
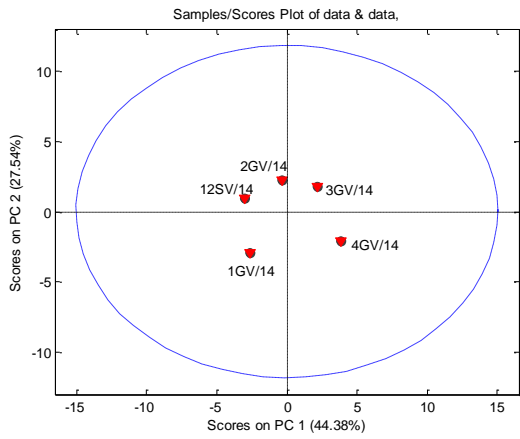


Figure S1.