

Supplementary material for the article:

Krstić, Đ.; Vukojević, V.; Mutić, J.; Fotirić Akšić, M.; Ličina, V.; Milojković-Opsenica, D.; Trifković, J. Distribution of Elements in Seeds of Some Wild and Cultivated Fruits. Nutrition and Authenticity Aspects. *Journal of the Science of Food and Agriculture* **2019**, 99 (2), 546–554. <https://doi.org/10.1002/jsfa.9213>

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

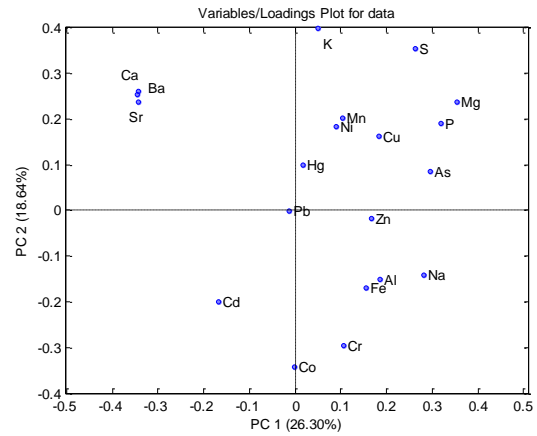
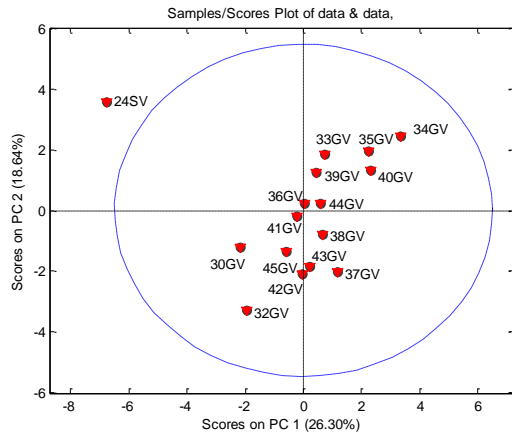
Rf power (W)	1548
Gas flows (L/min)	13.9; 1.09; 0.8
Acquisition time	3 x 50s
Points per peak	3
Dwell time (ns)	10
Detector mode	Pulse
Measured isotopes	⁷⁵ As, ¹³⁶ Ba, ¹¹¹ Cd, ⁵⁹ Co, ⁵⁰ Cr, ⁶⁵ Cu, ²⁰² Hg, ⁵⁵ Mn, ⁶² Ni, ²⁰⁷ Pb, ⁸⁶ Sr, ⁶⁸ Zn

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

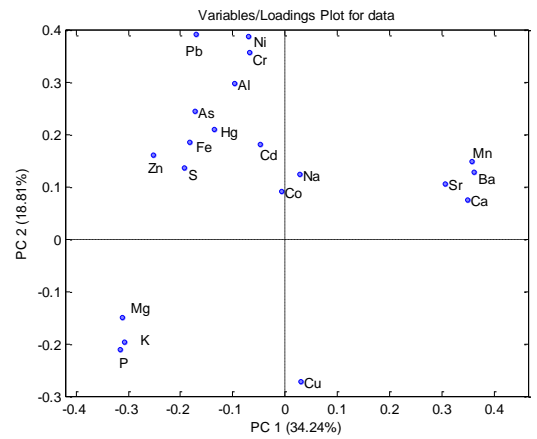
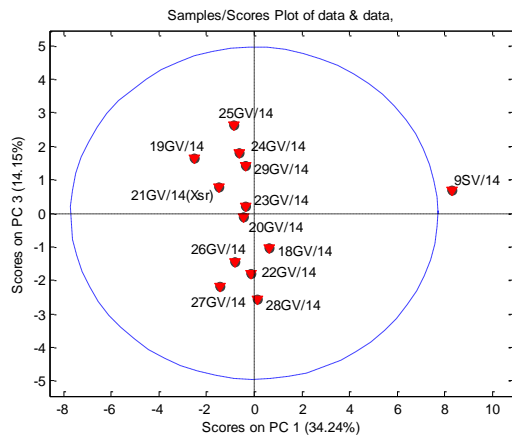
Element	P^a	Kruskal-Wallis Multiple Comparison z-test
Al	0.0002	Currant(Blueberry, Strawberry)
As	0.4332	/
Ba	0.0013	Strawberry(Blueberry, Currant, Raspberry)
Ca	<0.0001	Strawberry(Blackberry, Currant, Blueberry, Raspberry) Currant(Blueberry, Raspberry)
Cd	0.1092	/
Co	<0.0001	Strawberry(Blackberry, Currant, 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)

^aDifferences between two set of data is significant when P value is less or equal to $P=0.05$

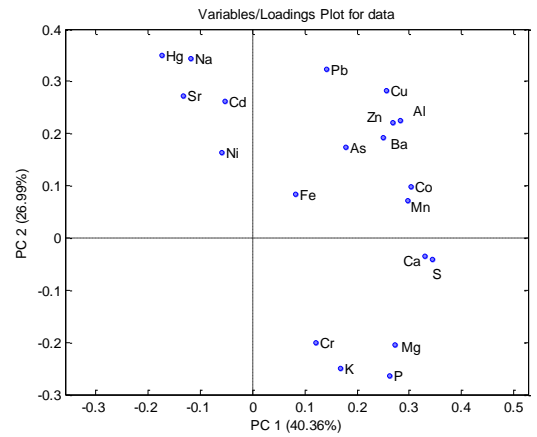
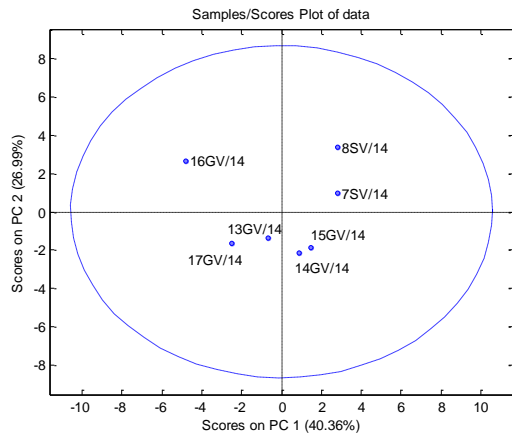
Strawberry



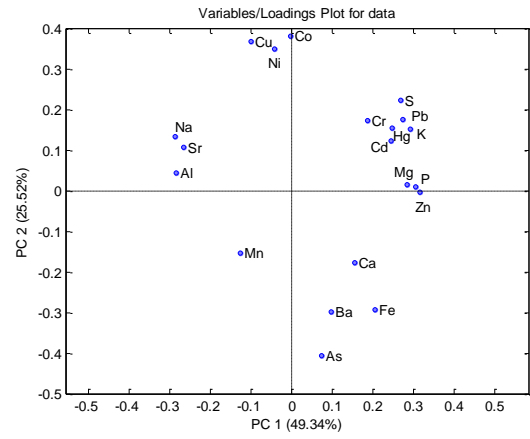
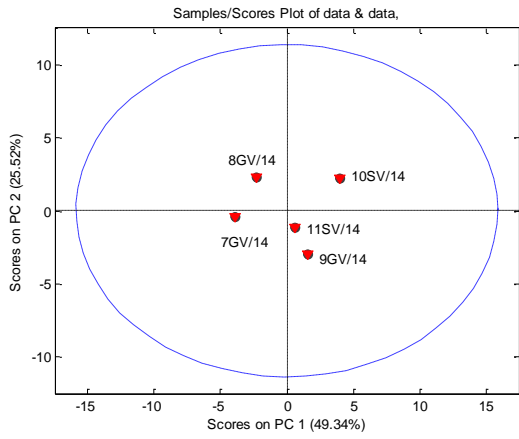
Currant



Blueberry



Blackberry



Raspberry

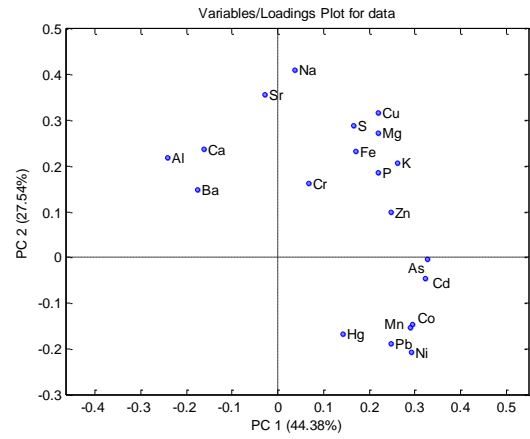
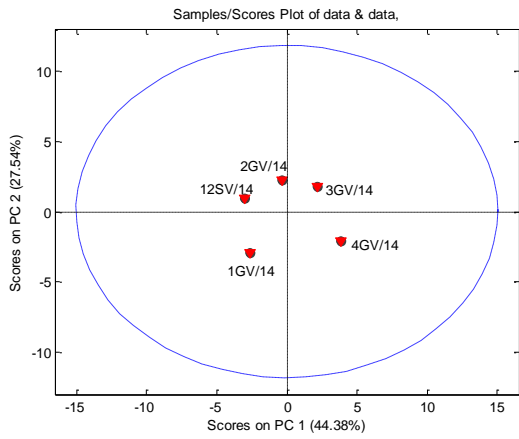


Figure S1.