

Electronic Supplementary information (ESI) FOR RSC Advances

An overview of the chemical aspects of *Capsicum* genus

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Table 1 - Normalized data matrix used in the Principal Component Analysis

serrano													
<i>C. frutescens</i>													
tabasco	0.0032	1.0000	0.0903	0.0821	0.1524	0.0202	0.0373	0.0000	0.0172	0.0000	0.0000	0.0000	5
<i>C. annuum</i>													
laris HS	0.0000	0.0000	0.0030	0.0012	0.0046	0.0762	0.6828	0.0000	0.1296	0.7477	0.1103	0.1981	14
<i>C. annuum</i>													
jatilaba	0.0000	0.0000	0.0030	0.0012	0.0046	0.0616	0.6895	0.0000	0.1570	0.6143	0.1189	0.2561	14
<i>C. annuum</i>													
keystone													
Resistant													
giant	0.0001	0.0003	0.0000	0.0000	0.0000	0.3848	0.6462	0.0000	0.0818	0.7996	0.0928	0.2000	14
<i>C. annuum</i>													
long sweet	0.0015	0.0010	0.0000	0.0000	0.0000	0.1308	0.7685	0.0000	0.0556	0.5434	0.1136	0.1699	14
<i>C. annuum</i>													
sweet													
banana	0.0002	0.0001	0.0000	0.0000	0.0000	0.1253	0.5612	0.0000	0.0852	1.0000	0.1161	0.2606	14
<i>C. chinense</i>													
yolo wonder													
L.	0.0000	0.0002	0.0000	0.0000	0.0000	0.2484	0.6488	0.0000	0.0704	0.5506	0.0479	0.4303	14
<i>C. annuum</i>													
miscucho													
colorado	0.0002	0.0001	0.0049	0.0035	0.0116	0.0552	0.8033	0.0000	0.0469	0.3670	0.1172	0.2295	14
<i>C. chinense</i>													
chili de													
arbol	0.0002	0.0001	0.0099	0.0164	0.0346	0.0907	0.6091	0.0000	0.1233	0.4824	0.0840	0.5278	14
<i>C. chinense</i>													
AC 2212	0.0003	0.0010	0.0010	0.0000	0.0000	0.1976	0.6883	0.1699	0.5225	0.5841	0.0848	0.1141	14
<i>C. chinense</i>													
1GAA	0.0000	0.0000	0.0030	0.0047	0.0069	0.0802	0.7180	0.0000	0.1363	0.5331	0.1238	0.2500	14
<i>C. chinense</i>													
RU 72-194	0.0000	0.0000	0.0099	0.0059	0.0023	0.0000	0.5385	0.0000	0.0000	0.0000	0.0928	1.0000	14
<i>C. chinense</i>													
RU 72-241	0.0000	0.0000	0.0099	0.0047	0.0023	0.4209	0.9424	0.0000	0.0000	0.2799	0.0812	0.0000	14
<i>C. frutescens</i>													
Lombok	0.0000	0.0006	0.0591	0.0374	0.1155	0.0471	0.6448	0.0000	0.0890	0.6964	0.1011	0.3266	14
<i>C. baccatum</i>													
Aji blanco													
christal	0.0001	0.0001	0.0030	0.0023	0.0116	0.1040	0.5822	0.0000	0.0491	0.9606	0.1338	0.2403	14

C = capsaicin; DHC = dihydrocapsaicin; n-DHC = nordihydrocapsaicin; a-carotene = α -carotene; b-carotene = β -carotene.

References

- 1 J. J. Lee, K. M. Crosby, L. M. Pike, K. S. Yoo and D. I. Leskovar, *Sci. Hortic. (Amsterdam)*, 2005, **106**, 341–352.
- 2 O. Collera-Zúñiga, F. García Jiménez and R. Meléndez Gordillo, *Food Chem.*, 2005, **90**, 109–114.
- 3 V. M. Russo and L. R. Howard, *J. Sci. Food Agric.*, 2002, **82**, 615–624.
- 4 A. González-Zamora, E. Sierra-Campos, R. Pérez-Morales, C. Vázquez-Vázquez, M. A. Gallegos-Robles, J. D. López-Martínez and J. L. García-Hernández, *J. Chem.*, 2015, **2015**.
- 5 L. R. Howard, S. T. Talcott, C. H. Brenes and B. Villalon, *J. Agric. Food Chem.*, 2000, **48**, 1713–1720.
- 6 D. J. Simpson, M. R. Baqar and T. H. Lee, *Z. Pflanzenphysiol. Bd.*, 1977, **83**, 293–308.
- 7 I. Bonaccorsi, F. Cacciola, M. Utczas, V. Inferrera, D. Giuffrida, P. Donato, P. Dugo and L. Mondello, *J. Sep. Sci.*, 2017, **7**, 1–80.
- 8 J. de J. Ornelas-Paz, J. M. Martínez-Burrola, S. Ruiz-Cruz, V. Santana-Rodríguez, V. Ibarra-Junquera, G. I. Olivas and J. D. Pérez-Martínez, *Food Chem.*, 2010, **119**, 1619–1625.
- 9 D. Giuffrida, P. Dugo, G. Torre, C. Bignardi, A. Cavazza, C. Corradini and G. Dugo, *Food Res. Int.*, 2014, **65**, 163–170.
- 10 J. D. Butcher, K. M. Crosby, K. S. Yoo, B. S. Patil, A. M. H. Ibrahim, D. I. Leskovar and J. L. Jifon, *HortScience*, 2012, **47**, 574–579.
- 11 J. S. Kim, J. Ahn, S. J. Lee, B. K. Moon, T. Y. Ha and S. Kim, *J. Food Sci.*, 2011, **76**.
- 12 A. Topuz, C. Dincer, K. S. Özdemir, H. Feng and M. Kushad, *Food Chem.*, 2011, **129**, 860–865.
- 13 H. Bae, G. K. Jayaprakasha, J. Jifon and B. S. Patil, *Food Chem.*, 2012, **134**, 1912–1918.
- 14 Y. Wahyuni, A. R. Ballester, E. Sudarmonowati, R. J. Bino and A. G. Bovy, *Phytochemistry*, 2011, **72**, 1358–1370.