

Supplementary Materials

Table 1S. The list of fruit used in this study.

Latin name	Image	Source	Origin	Main features	Use
<i>M. × soulardii</i>		Received in 2010 within the framework of mutual cooperation from the Gottingen Botanical Garden.	A hybrid of garden origin, probably <i>M. ioensis</i> × <i>M. pumila</i>	The fruits are medium to small, mostly oval in shape, with a dark pink/red skin and flesh color. Crunchy, juicy. Scab-resistant. Excellent winter hardiness. High productivity. Dark red skin and flesh color.	For wine and cider, sauce, soufflé and marshmallow production.
<i>M. Bernu prieks</i>		Found in 2002 at Kandava, Ozolaji, in the garden of the Latvian breeder Rudolf Aker.	Most likely this is Budagovsky's open-pollinated seedling	The fruits are small in size, 20-30 g, mostly pear-shaped. Red flowers, dark red skin and red-pink flesh. Ripen early. A distinctive lingonberry aroma. Excellent winter hardiness. High productivity.	For juice, jam, wine and cider production.
<i>M. sp.</i> , cv. 'Ola'		The cultivar was bred by the Polish breeder Jan Grąbczewski before 1990.	Cultivar was probably derived from the pink apple <i>M. × purpurea</i>	The fruits are small in size 15-25 g, mostly round-shaped. Dark red skin and flesh color. A distinctive sourness and almond aroma, without astringency. Scab-resistant. Excellent winter hardiness. High productivity.	For jam, stewed fruit production

Continuation of Table 1

Latin name	Image	Source	Origin	Main features	Use
<i>M.</i> Berzukroga dzeltenais		Found in 2002 along the roadside in Cesis, Latvia. The mother tree has been removed.	Accidental seedling of unknown origin.	Fruits small in size - 15-20 g, round-shaped with a yellow skin and flesh, crisp, juice, with a very distinctive apple-pineapple flavor that is perfectly preserved in wines and ciders even in large dilutions.	For juice, wine and cider production.
<i>M.</i> × <i>domestica</i> Borkh. cv. 'Gita'		Latvian high-quality cultivar of domesticated apple which was developed at the Institute of Horticulture in 2009. Breeder – Laila Ikase.	Cross of Liberty' × 'Melba'.	Fruits are large, with red blush and stripes, sub-acid, juicy and crisp. Scab-resistant with rather good tolerance to mildew and other diseases. The tree is very productive with regular yields.	For fresh consumption and processing.

Table 2S. Calibration data for the standards.

Standard	Linearity range, mg mL⁻¹	a (mean ± SD)	b (mean ± SD)	r²
Methyl heptadecanoic acid for methyl esters	0.133 – 1.133	$5.65 \times 10^6 \pm 9.252 \times 10^6$	$2.70 \times 10^6 \pm 0.232 \times 10^6$	0.9990
γ -Linoleic acid for silyl derivatives	0.100 – 0.900	$9.14 \times 10^5 \pm 16.252 \times 10^5$	$7.545 \times 10^8 \pm 0.052 \times 10^8$	0.9995
Dodecanal for silyl derivatives	0.040 – 0.500	$-1.82 \times 10^7 \pm 22.34 \times 10^7$	$6.386 \times 10^8 \pm 0.971 \times 10^8$	0.9995
Ergosterol for silyl derivatives	0.100 – 0.900	$6.26 \times 10^5 \pm 7.16 \times 10^5$	$3.581 \times 10^8 \pm 0.024 \times 10^8$	0.9994
Octadecanol for silyl derivatives	0.008 – 0.160	$-3.42 \times 10^6 \pm 0.23 \times 10^6$	$8.555 \times 10^8 \pm 0.042 \times 10^8$	0.9998
n-Tetracosane for silyl derivatives	0.008 – 0.160	$-2.71 \times 10^6 \pm 0.31 \times 10^6$	$7.722 \times 10^8 \pm 0.050 \times 10^8$	0.9996