

Appendix 2. Examples of salicylic acid levels in pasture plants, animal feed, potential feed components and drinking water

(source cited in table)

Note: the table below also shows matrices that can be added to feed as supplements or alternative components or whose waste or by-products alone are usually added to feed. In addition, certain matrices intended for human consumption are also presented as examples of cereals, to give a more complete picture of salicylic acid levels in the cereals concerned (e.g. toast). The table below is indicative as the analytical results originate from different studies and were obtained using different methods.

Matrix	Matrix details	Salicylic acid (mg/kg; supplemented by standard deviation if available)	Source
Festulolium (hybrid of different pasture grass genera)	/	Up to 1.5	Pociecha <i>et al.</i> (2009)
Meadowsweet	Meadowsweet flowers	0.95	Fecka (2009)
Alfalfa	Alfalfa hay (Origin: Ontario, USA): alfalfa/grass hay	485	Beaumier <i>et al.</i> (1987)
	Alfalfa hay, pressed, cubes, brand: Outlook Alfalfa Products, Saskatchewan	485	Beaumier <i>et al.</i> (1987)
	Alfalfa, vegetative parts (leaves and stem)	1,440.64 ± 0.04	Iqbal <i>et al.</i> (2021)
Timothy	Timothy hay	2.4	Beaumier <i>et al.</i> (1987)
Clover	Clover hay	32	Beaumier <i>et al.</i> (1987)
Willow	Willow bark	50-3,000	Petrek <i>et al.</i> (2007) ^(c)
	Willow branches	25-2,200	Petrek <i>et al.</i> (2007) ^(c)
Crabgrass	Leaf samples from plants 2 to 4 weeks old were used for salicylic acid determination.	5.05 ± 1.45 (3) ^(g)	Raskin <i>et al.</i> (1990)
Meadow vulpine	Leaf samples from plants 2 to 4 weeks old were used for salicylic acid determination.	3.44 (2) ^(g)	Raskin <i>et al.</i> (1990)
Purple nutsedge	Leaf samples from plants 2 to 4 weeks old were used for salicylic acid determination.	0.97 ± 0.12 (3) ^(g)	Raskin <i>et al.</i> (1990)
Barnyard grass	Leaf samples from plants 2 to 4 weeks old were used for salicylic acid determination.	0.68 ± 0.07 (3) ^(g)	Raskin <i>et al.</i> (1990)
<i>Sida spinoza</i> Linn.	Leaf samples from plants 2 to 4 weeks old were used for salicylic acid determination.	0.45 ± 0.17 (3) ^(g)	Raskin <i>et al.</i> (1990)
Furry feather calathea	Leaf samples from plants 2 to 4 weeks old were used for salicylic acid determination.	0.17 ± 0.05 (3) ^(g)	Raskin <i>et al.</i> (1990)

Lamb's-quarters	Leaf samples from plants 2 to 4 weeks old were used for salicylic acid determination.	0.10 ± 0.04 (3) ^(g)	Raskin <i>et al.</i> (1990)
Spiny lamprey	Leaf samples from plants 2 to 4 weeks old were used for salicylic acid determination.	0.04 ± 0.01 (3) ^(g)	Raskin <i>et al.</i> (1990)
Rapeseed	Leaf samples from plants 2 to 4 weeks old were used for salicylic acid determination.	< 0.01 (4) ^(g)	Raskin <i>et al.</i> (1990)
Downy brome	Leaf samples from plants 2 to 4 weeks old were used for salicylic acid determination.	< 0.01 (2) ^(g)	Raskin <i>et al.</i> (1990)
White anserine	Leaf samples from plants 2 to 4 weeks old were used for salicylic acid determination.	< 0.01 (3) ^(g)	Raskin <i>et al.</i> (1990)
Cotton	Leaf samples from plants 2 to 4 weeks old were used for salicylic acid determination.	0.08 ± 0.04 (3) ^(g)	Raskin <i>et al.</i> (1990)
Animal compound feed	Different types of compound feed suitable for laying hens, pigs and cattle (50 samples were analysed in total)	< 0.05-0.48	Protasiuk and Olejnik (2018)
Oryza sativa	Oryza sativa leaves, 7-35 days after sowing rice seeds	7.37 (± 1.11) to 15.29 (± 2.19)	Silverman <i>et al.</i> (1995)
Rice	Brand: Kupiec (origin: Spain) - brown rice	0.46 ± 0.031 ^(a) /4.26 ± 0.067 ^(b)	Keszycka <i>et al.</i> (2017)
	Brand: Kupiec (origin: Italy) - white rice	0.39 ± 0.014 ^(a) /1.24 ± 0.029 ^(b)	Keszycka <i>et al.</i> (2017)
	Leaf samples from plants 2 to 4 weeks old were used for salicylic acid determination.	37.19 ± 4.39 (5) ^(g)	Raskin <i>et al.</i> (1990)
Corn	Young corn (three samples were analysed)	5.30-12.8	Protasiuk and Olejnik (2018)
	Adult corn (three samples were analysed)	0.13-1.01	Protasiuk and Olejnik (2018)
	Brand: Radix-bis (origin: Poland) - flour flower	0.79 ± 0.100 ^(a) /2.28 ± 0.147 ^(b)	Keszycka <i>et al.</i> (2017)
	/	< 0.01 (12) ^(g)	Raskin <i>et al.</i> (1990)
Sweetcorn	Whole seeds	0.1	Robertson and Kermode (1981)
	Frozen	< 0.2 ^(a)	Scotter <i>et al.</i> 2007
Wheat	Three samples were analysed	0.05-0.08	Protasiuk and Olejnik (2018)
	Brand: Oskroba (origin: Poland) - bread	< 0.074 ^(a) /0.12 ± 0.005 ^(b)	Keszycka <i>et al.</i> (2017)
	Brand: Schulstad (origin: Poland) - toasted bread	0.08 ± 0.030 ^(a) /0.10 ± 0.008 ^(b)	Keszycka <i>et al.</i> (2017)
	Brand: Polskie mlyny (origin: Poland) - flour flower	< 0.074 ^(a) /0.19 ± 0.010 ^(b)	Keszycka <i>et al.</i> (2017)
	Brand: Lubella (origin: Poland) - pasta	0.14 ± 0.003 ^(a) /0.19 ± 0.009 ^(b)	Keszycka <i>et al.</i> (2017)

	Leaf samples from plants 2 to 4 weeks old were used for salicylic acid determination.	0.09 ± 0.02 (11) ^(g)	Raskin <i>et al.</i> (1990)
Barley	Three samples were analysed	< 0.05	Protasiuk and Olejnik (2018)
	Hulled barley, brand: Melvit (origin: Poland) - groats	< 0.021 ^(a) /0.24 ± 0.036 ^(b)	Keszycka <i>et al.</i> (2017)
	Leaf samples from plants 2 to 4 weeks old were used for salicylic acid determination.	2.13 ± 0.73 (3) ^(g)	Raskin <i>et al.</i> (1990)
Triticale	Three samples were analysed	< 0.05	Protasiuk and Olejnik (2018)
Buckwheat	Brand: Melvit (origin: Poland) - flour flower	0.76 ± 0.021 ^(a) /9.45 ± 0.065 ^(b)	Keszycka <i>et al.</i> (2017)
	Brand: Melvit (origin: Poland) - grilled groats	12.27 ± 0.060 ^(a) /14.21 ± 0.128 ^(b)	Keszycka <i>et al.</i> (2017)
	Wild buckwheat: leaf samples from plants 2 to 4 weeks old were used for salicylic acid determination.	0.06 ± 0.00 (3) ^(g)	Raskin <i>et al.</i> (1990)
Millet	Brand: Bio Avena (origin: Poland) - groats	< 0.021 ^(a) / < 0.021 ^(b)	Keszycka <i>et al.</i> (2017)
Oats	Brand: Kupiek (origin: Poland) - groats	0.39 ± 0.050 ^(a) /2.74 ± 0.057 ^(b)	Keszycka <i>et al.</i> (2017)
	Wild oats: leaf samples from plants 2 to 4 weeks old were used for salicylic acid determination.	0.07 ± 0.02 (3) ^(g)	Raskin <i>et al.</i> (1990)
Rye	Brand: Oskroba (origin: Poland) - wholegrain bread	0.08 ± 0.005 ^(a) /0.10 ± 0.001 ^(b)	Keszycka <i>et al.</i> (2017)
Soybeans	Brand: Radix-bis (origin: Canada) - flour flower	1.98 ± 0.066 ^(a) /2.01 ± 0.010 ^(b)	Keszycka <i>et al.</i> (2017)
	Soybeans: leaf samples from plants 2 to 4 weeks old were used for salicylic acid determination.	1.18 ± 0.41 (7) ^(g)	Raskin <i>et al.</i> (1990)
Paprika powder	Three samples were analysed	0.58-1.87	Protasiuk and Olejnik (2018)
Beans	Florpak brand beans (origin: Poland) - raw seeds	1.08 ± 0.022 ^(a) /1.31 ± 0.015 ^(b)	Keszycka <i>et al.</i> (2017)
	green beans, Vespa (origin: Poland) - fresh	0.07 ± 0.005 ^(a) /0.71 ± 0.006 ^(b)	Keszycka <i>et al.</i> (2017)
	green beans, Vespa (origin: Poland) - boiled	0.05 ± 0.000 ^(a) /0.38 ± 0.017 ^(b)	Keszycka <i>et al.</i> (2017)
	butter beans, Unidor (origin: Poland) - fresh	0.09 ± 0.007 ^(a) /1.37 ± 0.023 ^(b)	Keszycka <i>et al.</i> (2017)
	butter beans, Unidor (origin: Poland) - boiled	0.06 ± 0.001 ^(a) /0.58 ± 0.023 ^(b)	Keszycka <i>et al.</i> (2017)
	Stringless French beans	0.08	Robertson and Kermode (1981)
	Cooked beans	< 0.2 ^(a)	Scotter <i>et al.</i> (2007)
	Leaf samples from plants 2 to 4 weeks old were used for salicylic acid determination.	0.86 ± 0.16 (4) ^(g)	Raskin <i>et al.</i> (1990)
Beet	Origin: Poland - fresh	0.13 ± 0.006 ^(a) /0.88 ± 0.031 ^(b)	Keszycka <i>et al.</i> (2017)

	Sugar beet; leaf samples from plants 2 to 4 weeks old were used for salicylic acid determination.	0.04 (2) (g)	Raskin <i>et al.</i> (1990)
Broccoli	Broccoli Calabrese Natalino (origin: Poland) - fresh	0.06 ± 0.003 ^(a) /0.96 ± 0.013 ^(b)	Keszycka <i>et al.</i> (2017)
	Broccoli Calabrese Natalino (origin: Poland) - boiled	0.02 ± 0.001 ^(a) /0.30 ± 0.001 ^(b)	Keszycka <i>et al.</i> (2017)
	Frozen	< 0.2 ^(a)	Scotter <i>et al.</i> 2007
Cabbage	White cabbage, Bently (origin: Poland) - fresh	0.02 ± 0.005 ^(a) /0.06 ± 0.001 ^(b)	Keszycka <i>et al.</i> (2017)
	Chinese cabbage, Napa (origin: Poland) - fresh	0.03 ± 0.005 ^(a) /0.16 ± 0.003 ^(b)	Keszycka <i>et al.</i> (2017)
	/	0.01	Robertson and Kermode (1981)
Carrots	Galicja (Origin: Poland) - fresh	0.03 ± 0.003 ^(a) /0.23 ± 0.0016 ^(b)	Keszycka <i>et al.</i> (2017)
	Fresh	0.5 ^(a)	Scotter <i>et al.</i> (2007)
	Boiled	< 0.2 ^(a)	Scotter <i>et al.</i> (2007)
Cauliflower	Adelanto (origin: Poland) - fresh	0.35 ± 0.023 ^(a) /5.44 ± 0.050 ^(b)	Keszycka <i>et al.</i> (2017)
	Adelanto (origin: Poland) - boiled	0.10 ± 0.002 ^(a) /2.60 ± 0.070 ^(b)	Keszycka <i>et al.</i> (2017)
	/	0.07	Robertson and Kermode (1981)
Celery	Origin: Poland - fresh	0.04 ± 0.001 ^(a) /2.85 ± 0.009 ^(b)	Keszycka <i>et al.</i> (2017)
Courgette	Acceste (origin: Poland) - fresh	< 0.074 ^(a) /0.01 ± 0.001 ^(b)	Keszycka <i>et al.</i> (2017)
Cucumber	Mirabela (origin: Poland) - unpeeled	0.02 ± 0.001 ^(a) /0.24 ± 0.001 ^(b)	Keszycka <i>et al.</i> (2017)
	Mirabela (origin: Poland) - peeled	0.02 ± 0.001 ^(a) / 0.17 ± 0.023 ^(b)	Keszycka <i>et al.</i> (2017)
	/	0.4 ^(a)	Scotter <i>et al.</i> (2007)
Aubergine	Origin: Poland - unpeeled	0.02 ± 0.001 ^(a) /0.03 ± 0.005 ^(b)	Keszycka <i>et al.</i> (2017)
	Origin: Poland - peeled	0.01 ± 0.001 ^(a) / 0.03 ± 0.000 ^(b)	Keszycka <i>et al.</i> (2017)
Lentils	Brand: Florpak (origin: Poland) - raw seeds	3.12 ± 0.134 ^(a) /16.76 ± 0.067 ^(b)	Keszycka <i>et al.</i> (2017)
Lettuce	Butterhead lettuce (origin: Poland) - fresh	0.01 ± 0.001 ^(a) /0.02 ± 0.001 ^(b)	Keszycka <i>et al.</i> (2017)
Mushroom	Mushroom (origin: Poland) - fresh	< 0.074 ^(a) / ^(b) < 0.074	Keszycka <i>et al.</i> (2017)
Olives	Green olives, brand: Primerosa (origin: Spain) - canned ^(d)	0.04 ± 0.029 ^(a) / 0.05 ± 0.003 ^(b)	Keszycka <i>et al.</i> (2017)
	Black olives, brand: La Pedriza (origin: Spain) - canned ^(e)	0.005 ± 0.001 ^(a) /0.05 ± 0.001 ^(b)	Keszycka <i>et al.</i> (2017)
Onion	White (origin: Poland) - fresh	< 0.021 ^(a) /0.02 ± 0.002 ^(b)	Keszycka <i>et al.</i> (2017)
Peas	Split peas, brand: Florpak (origin: Poland) - raw seeds	0.72 ± 0.121 ^(a) /1.44 ± 0.057 ^(b)	Keszycka <i>et al.</i> (2017)
	Frozen	0.3 ^(a)	Scotter <i>et al.</i> (2007)
	Leaf samples from plants 2 to 4 weeks old were used for salicylic acid determination.	0.03 ± 0.01 (3) ^(g)	Raskin <i>et al.</i> (1990)
Peppers	Green pepper, California Wonder (origin: Poland) - fresh	0.05 ± 0.020 ^(a) /0.07 ± 0.003 ^(b)	Keszycka <i>et al.</i> (2017)

	Red pepper, California Wonder (origin: Poland) - fresh	$0.02 \pm 0.001^{(a)}/0.06 \pm 0.003^{(b)}$	Keszycka <i>et al.</i> (2017)
	Red pepper, brand: Provitus (origin: Poland) - canned ^(f)	$0.03 \pm 0.001^{(a)}/0.05 \pm 0.003^{(b)}$	Keszycka <i>et al.</i> (2017)
	Red pepper	0.04	Robertson and Kermode (1981)
	Red pepper, fresh	< 0.2 ^(a)	Scotter <i>et al.</i> (2007)
	Red pepper, boiled	< 0.2 ^(a)	Scotter <i>et al.</i> (2007)
Potato	Irga (origin: Poland) - boiled	< 0.021 ^{(a)}/1.20 ± 0.159 ^(b)}	Keszycka <i>et al.</i> (2017)
	Red King	0.06	Robertson and Kermode (1981)
Sweet potato	/	0.04	Robertson and Kermode (1981)
Radish	Carmen (origin: Poland) - fresh	$0.03 \pm 0.003^{(a)}/0.14 \pm 0.008^{(b)}$	Keszycka <i>et al.</i> (2017)
Spinach	Origin: Spain - fresh	$0.40 \pm 0.006^{(a)}/0.25 \pm 0.008^{(b)}$	Keszycka <i>et al.</i> (2017)
Tomato	Vp1 (origin: Poland) - unpeeled	$0.12 \pm 0.013^{(a)}/0.12 \pm 0.001^{(b)}$	Keszycka <i>et al.</i> (2017)
	Vp1 (origin: Poland) - peeled	$0.10 \pm 0.019^{(a)}/0.11 \pm 0.007^{(b)}$	Keszycka <i>et al.</i> (2017)
	/	0.05	Robertson and Kermode (1981)
	Fresh	1.3 ^(a)	Scotter <i>et al.</i> (2007)
	Boiled	< 0.02 ^(a)	Scotter <i>et al.</i> (2007)
	Leaf samples from plants 2 to 4 weeks old were used for salicylic acid determination.	$0.27 \pm 0.124^{(4)}^{(g)}$	Raskin <i>et al.</i> (1990)
Garlic	/	0.08	Robertson and Kermode (1981)
Peanut	Leaf samples from plants 2 to 4 weeks old were used for salicylic acid determination.	$0,22 \pm 0.03^{(4)}^{(g)}$	Raskin <i>et al.</i> (1990)
Apple	Golden delicious (origin: Poland) - unpeeled	< 0.074 ^{(a)}/< 0.074 ^(b)}	Keszycka <i>et al.</i> (2017)
	Antonówka (origin: Poland) - unpeeled	< 0.074 ^{(a)}/< 0.074 ^(b)}	Keszycka <i>et al.</i> (2017)
	Idared (origin: Poland) - unpeeled	< 0.021 ^{(a)}/< 0.021 ^(b)}	Keszycka <i>et al.</i> (2017)
	Idared (origin: Poland) - peeled	< 0.021 ^{(a)}/< 0.021 ^(b)}	Keszycka <i>et al.</i> (2017)
	Idared (origin: Poland) - peeled and cooked	< 0.021 ^{(a)}/< 0.021 ^(b)}	Keszycka <i>et al.</i> (2017)
	Idared (origin: Poland) - peeled and boiled	< 0.021 ^{(a)}/< 0.021 ^(b)}	Keszycka <i>et al.</i> (2017)
Banana	Origin: Poland - peeled	< 0.021 ^{(a)}/< 0.021 ^(b)}	Keszycka <i>et al.</i> (2017)
Cranberry	Bluecrop (origin: Poland) - unpeeled	$0.13 \pm 0.007^{(a)}/0.19 \pm 0.002^{(b)}$	Keszycka <i>et al.</i> (2017)
	Forest blueberries (origin: Poland) - unpeeled	$0.03 \pm 0.003^{(a)}/0.62 \pm 0.002^{(b)}$	Keszycka <i>et al.</i> (2017)

Redcurrant	Rolan (origin: Poland) - unpeeled	$0.07 \pm 0.003^{(a)}/0.41 \pm 0.003^{(b)}$	Keszycka <i>et al.</i> (2017)
gooseberry	Origin: Poland - unpeeled	$0.05 \pm 0.003^{(a)}/0.71 \pm 0.030^{(b)}$	Keszycka <i>et al.</i> (2017)
Grapes	Red (origin: Poland) - unpeeled	$0.04 \pm 0.003^{(a)}/0.11 \pm 0.004^{(b)}$	Keszycka <i>et al.</i> (2017)
Kiwi	Origin: Italy - peeled	$< 0.021^{(a)}/0.03 \pm 0.001^{(b)}$	Keszycka <i>et al.</i> (2017)
Lemon	Origin: Spain - peeled	$0.04 \pm 0.002^{(a)}/0.06 \pm 0.004^{(b)}$	Keszycka <i>et al.</i> (2017)
Orange	Origin: Spain - peeled	$0.11 \pm 0.014^{(a)}/0.12 \pm 0.001^{(b)}$	Keszycka <i>et al.</i> (2017)
Peach	Hermanika (origin: Poland) - unpeeled	$0.29 \pm 0.030^{(a)}/0.44 \pm 0.0016^{(b)}$	Keszycka <i>et al.</i> (2017)
	Hermanika (origin: Poland) - peeled	$0.27 \pm 0.027^{(a)}/0.41 \pm 0.039^{(b)}$	Keszycka <i>et al.</i> (2017)
Pear	Klapsa (origin: Poland) - unpeeled	$< 0.074^{(a)}/< 0.074^{(b)}$	Keszycka <i>et al.</i> (2017)
	Klapsa (origin: Poland) - peeled	$< 0.021^{(a)}/< 0.021^{(b)}$	Keszycka <i>et al.</i> (2017)
Plum	Wegierka (origin: Poland) - unpeeled	$0.79 \pm 0.024^{(a)}/1.17 \pm 0.039^{(b)}$	Keszycka <i>et al.</i> (2017)
	President (origin: Poland) - unpeeled	$0.64 \pm 0.028^{(a)}/1.77 \pm 0.021^{(b)}$	Keszycka <i>et al.</i> (2017)
	Ulena (origin: Poland) - unpeeled	$0.38 \pm 0.028^{(a)}/0.94 \pm 0.014^{(b)}$	Keszycka <i>et al.</i> (2017)
Raspberries	Polka (origin: Poland) - unpeeled	$0.05 \pm 0.003^{(a)}/0.76 \pm 0.028^{(b)}$	Keszycka <i>et al.</i> (2017)
Strawberries	Marmolada (origin: Poland) - unpeeled	$0.05 \pm 0.000^{(a)}/2.25 \pm 0.019^{(b)}$	Keszycka <i>et al.</i> (2017)
	Elsanta (origin: Poland) - unpeeled	$0.05 \pm 0.007^{(a)}/1.76 \pm 0.094^{(b)}$	Keszycka <i>et al.</i> (2017)
Watermelon	Origin: Poland - unpeeled	$0.06 \pm 0.001^{(a)}/2.67 \pm 0.003^{(b)}$	Keszycka <i>et al.</i> (2017)
Drinking water	/	< 0.1	Beaumier <i>et al.</i> (1987)

^(a) Free salicylic acid; ^(b) Free + bound salicylic acid; ^(c) This concerns salicylic acid contents (indicative, because partly read visually on a graph) for 13 *Salix* varieties, namely *S. viminalis*, *S. triandra*, *S. fragilis*, *S. caterii*, *S. erythroflexuosa*, *S. repens*, *S. reinii*, *S. purpurea* cv. Nana, *S. clix* cv. Aegma Brno, *S. foetida* × *S. hastata*, *S. foetida*, *S. planifolia* and *S. laponum*; ^(d) ingredients: green olives, water, salt, lactic acid, citric acid, ascorbic acid; ^(e) ingredients: olives, water, salt, iron gluconate; ^(f) red pepper, vinegar, sugar, salt, mustard, herbs; ^(g) number of replicates is indicated in brackets.