

# Phenolic compounds from five Ericaceae species leaves and their related bioavailability and several health benefits

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The phenolic compounds present in bilberry, lingonberry, bog bilberry, blueberry and bearberry leaves

	Compound name	BIL*	LIL*	BBL*	BLL*	BEL*
Antocyanins(only in the red leaves)	cyanidin-3-O-glucoside	d	nd	d	d	nd
	cyanidin-3-O-glucuronide	nd	nd	d	d	nd
	cyanidin-3-O-arabinoside	d	nd	d	d	nd
	cyanidin-3-O-galactoside	d	nd	nd	d	nd
Arbutin derivatives	Arbutin	nd	d	nd	nd	d
	2-O-caffeoylarbutin	nd	d	nd	nd	nd
	caffeoyl acetyl arbutin	nd	d	nd	nd	nd
	p-coumaroylarbutin	nd	d	nd	nd	nd
	p-coumaroyl acetyl arbutin	nd	d	nd	nd	nd
Catechins	Catechin	d	d	nd	nd	d
	epicatechin	d	d	nd	nd	d
	gallocatechin	d	nd	nd	nd	nd
	epigallocatechin	d	nd	nd	nd	d
Cinchonains	cinchonain I	d	d	d	d	nd
	cinchonain II	d	d	nd	nd	nd

Flavonols	Quercetin	d	d	nd	d	d
	quercetin-3-glucuronide	d	nd	nd	nd	nd
	quercetin-3-O-galactoside	d	d	d	d	nd
	quercetin-3-O-glucoside	d	d	d	d	d
	quercetin-3-O-rutinoside(rutin)	nd	d	nd	d	nd
	quercetin-3-O-xyloside	nd	d	nd	d	nd
	quercetin-3-O-arabinoside	d	d	nd	d	nd
	quercetin-3-O-arabinofuranoside	nd	d	nd	nd	nd
	quercetin-3-O-rhamnoside	d	d	d	nd	nd
	quercetin-3-O-(4"-HMG)-rhamnoside	d	d	nd	nd	nd
	quercetin-3-(6"-acetyl) glucoside	nd	nd	nd	d	d
	kaempferol	d	nd	nd	nd	nd
	kaempferol-3-glucuronide	nd	d	nd	nd	nd
	kaempferol-(HMG)-rhamnoside	d	d	nd	nd	nd
	kaempferol-3-O-rhamnoside	d	d	nd	d	nd
	kaempferol-3-O-glucoside	nd	nd	d	nd	nd
	kaempferol-3-O-arabinoside	nd	nd	d	nd	nd
	kaempferol-feruloyl-acetylglucoside	nd	nd	d	nd	nd
	kaempferolcoumaroylglucoside	d	d	nd	d	d
	isorhamnetin 3-O-arabinoside					
	myricetin derivatives					
Iridoids	coumaroyliridoid isomers	d	d	d	nd	nd
Phenolic acids and derivatives	caffeic acid	d	d	nd	d	d
	p-coumaric acid	d	d	nd	d	nd
	caffeoylshikimic acid	d	d	nd	nd	d
	5-caffeoylquinic acid	d	d	d	d	nd
	4-caffeoylquinic acid	d	d	d	nd	nd
	3-caffeoylquinic acid	nd	d	nd	d	d
	dicafeoylquinic acid	d	nd	nd	d	d
	caffeoyl hexose hydroxyphenol	nd	d	nd	nd	d
	5-p-coumaroylquinic acid	d	d	d	nd	nd
	4-p-coumaroylquinic acid	d	d	d	nd	nd
	3-p-coumaroylquinic acid	d	d	d	nd	nd
	coumaroyl hexose hydroxyphenol	nd	d	nd	nd	nd
	p-coumaroyldiacetylhexosides	d	nd	nd	nd	nd
	p-coumaroyltriacylhexosides,	d	nd	nd	nd	nd
	p-coumaroylmalonylhexoside	d	nd	nd	nd	nd

	<i>p</i> -coumaroylmalonyldihexoside	d	nd	nd	nd	nd
	<i>p</i> -coumaroylmonotropein	d	d	nd	nd	nd
	feruloylquinic acid	d	d	d	nd	nd
	gallic acid derivative	d	nd	d	nd	d
	sinapic acid hexoside	nd	d	nd	nd	d
Proanthocyanidins	proanthocyanidin dimer type A	nd	d	nd	nd	nd
	proanthocyanidin trimer type A	d	d	nd	d	nd
	proanthocyanidin dimer type B	d	d	d	nd	nd
	proanthocyanidin trimer typeB	d	d	nd	d	nd
	proanthocyanidin tetramer type B	d	d	nd	nd	nd

\*BIL-bilberry leaves; LIL-lingonberry leaves; BBL-bog bilberry leaves; BLL-blueberry leaves; BEL-bearberry leaves; d-detected; nd-not detected