

Table 2. Antioxidant activity of extractable and nonextractable fractions, expressed as IC₅₀ (g sample/mL), (M±m)

	CAF	TF	NTR
DPPH activity of extractable fraction	0.89±0.11 ^c	1.93±0.52 ^e	1.12±0.18 ^d
DPPH activity of nonextractable fraction	0.02±0.01 ^a	0.14±0.01 ^b	0.07±0.01 ^{ab}
AOA activity of extractable fraction	2.45±0.15 ^c	4.84±0.69 ^e	3.21±0.36 ^d
AOA activity of nonextractable fraction	0.80±0.32 ^b	0.59±0.06 ^{ab}	0.34±0.07 ^a
Reducing activity of extractable fraction	0.27±0.01 ^c	1.01±0.06 ^e	0.48±0.01 ^d
Reducing activity of nonextractable fraction	0.03±0.01 ^a	0.13±0.01 ^b	0.06±0.01 ^a
Chelating activity of extractable fraction	0.22±0.07 ^a	0.47±0.20 ^c	1.24±0.19 ^b
Chelating activity of nonextractable fraction	0.29±0.05 ^a	0.18±0.06 ^a	1.13±0.09 ^b
Means in each row followed by the same superscript are not significantly different, P<0.05			

exist due to relatively high content of ferulic acid in sugar beet fibres (Table 1).

Most of the phenolic substances in the additives were found in nonextractable fractions, which have been

shown to possess significantly higher antioxidant activity than extractable fractions (Table 2).

The obtained results suggest the possibility for upgrading the functionality of meat products with incorpo-

rated NTF and TF additives, which is in line with the basic concept of CHANCE.

RESEARCHES ON TANNINS CONTAINING MEDICINAL VEGETATIVE RAW MATERIALS STANDARDIZATION

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Objective of the study was standartisation of medicinal vegetative raw material (MVRM) containing tannins. The objects of research were oak and viburnum bark; bistort, bergenia, tormentil and sanguisorba rhizomes; bilberry, bird cherry and alder fruit; sumag and smoke tree leaf. The microscopic, chromatographic, UV-, infrared- and Raman-spectro-scopic characteristics of plant material were done. Tannins were determined by HPLC, UV-spectroscopy, potentiometric titration. The possibility of collagen 1% solutions application as a tannins sedimentation reagent was investigated. The quantitative method of the tannins definition in plants

material was developed and patented. UV-, infrared- and Raman-spectroscopic characteristics for 11 types of MVRM and 8 standard samples (glucose, starch, fructose, tannin, pyrogallol, gallic and ellagic acids, rutine) were recorded and described. The spectra are recommended for identification of powders of raw materials. We've studied the diagnostic signs variability of MVRM at crushing. The anatomic and diagnostic signs of crushed and powdered raw materials were specified. The most variability elements (bunches and their parts, mechanical fibers, the oxalate calcium crystals chains; conglomerates of stony cages and fibers) were revealed and described: and also the signs, allowing to identify powders of similar types of raw materials.