Supplementary Information

Application of MIR Spectroscopy Combined with Multivariate Analysis for Detection of Adulteration in Commercial Buffalo Ricotta Cheese

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Table S1. Mean values of buffalo ricotta with different concentrations of cow whey, overall mean, regression equations, and regression coefficients of the chemical and physicochemical composition parameters of the ricotta produced and evaluated at 0, 15, and 30 days of storage

Parameter	t / days	Cow whey / %											Regression equation	R^2
		0	10	20	30	40	50	60	70	80	90	100		
Fat / %	0	21.28[a]	20.6[a]	20.35[a]	20.33[a]	19.75[a]	18.53[a]	21.45[a]	19.58[a]	19.21[a]	18.18[a]	20.99[a]	$\hat{Y} = Y = 20.01$	ns
	15	19.10[a]	21.00[a]	19.69[a]	20.91[a]	19.40[a]	20.15[a]	20.43[a]	20.79[a]	19.41[a]	18.74[a]	20.26[a]	$\hat{Y} = Y = 19.99$	ns
	30	22.13[a]	18.37[a]	21.58[a]	20.43[a]	21.01[a]	20.72[a]	21.10[a]	20.08[a]	20.16[a]	19.87[a]	21.10[a]	$\hat{Y} = Y = 20.60$	ns
Protein / %	0	19.53[a]	18.23[a]	17.79[a]	19.15[a]	17.81[a]	17.87[a]	19.04[a]	18.24[a]	18.30[a]	17.94[a]	18.99[a]	$\hat{Y} = Y = 18.45$	ns
	15	18.13[a]	17.40[a]	16.91[a]	19.06[a]	17.05[a]	18.24[a]	17.06[a]	17.21[a]	17.58[a]	18.11[a]	17.86[a]	$\hat{Y} = Y = 17.69$	ns
	30	18.83[a]	17.07[a]	17.32[a]	17.98[a]	18.70[a]	18.31[a]	18.55[a]	19.29[a]	17.55[a]	17.77[a]	20.23[a]	$\hat{Y} = Y = 18.33$	ns
Moisture / %	0	58.91[a]	61.75[a]	61.87[a]	60.01[a]	61.00[a]	62.55[a]	61.01[a]	61.85[a]	62.04[a]	62.47[a]	59.45[a]	$\hat{Y} = Y = 61.17$	ns
	15	61.64[a]	61.33[a]	61.63[a]	61.38[a]	61.40[a]	61.39[a]	60.36[a]	61.97[a]	62.73[a]	62.68[a]	59.45[a]	$\hat{Y} = Y = 61.45$	ns
	30	60.79[a]	61.83[a]	61.58[a]	58.89[a]	59.12[a]	60.12[a]	60.76[a]	62.74[a]	63.51[a]	61.04[a]	60.00[a]	$\hat{Y} = Y = 60.92$	ns
Ash / %	0	1.25[a]	1.12[a]	1.17[a]	1.21[a]	1.16[a]	1.18[a]	0.97[a]	1.14[a]	1.19[a]	1.20[a]	1.20[a]	$\hat{Y} = Y = 1.16$	ns
	15	1.36[a]	1.26[a]	1.26[a]	1.41[a]	1.41[a]	1.34[a]	1.36[a]	1.23[a]	1.26[a]	1.22[a]	1.49[a]	$\hat{Y} = Y = 1.33$	ns
	30	1.38[a]	1.84[a]	1.32[a]	1.39[a]	1.40[a]	1.65[a]	1.35[a]	1.21[a]	1.29[a]	1.30[a]	1.34[a]	$\hat{Y} = Y = 1.41$	ns
pH	0	6.26[a]	6.14[a]	6.26[a]	6.20[a]	6.14[a]	6.23[a]	6.21[a]	6.30[a]	6.26[a]	6.14[a]	6.30[a]	$\hat{Y} = Y = 6.22$	ns
	15	5.23[b]	5.08[b]	5.03[b]	5.16[b]	5.10[b]	4.96[b]	5.09[b]	5.04[b]	5.08[b]	5.01[b]	5.30[b]	$\hat{Y} = Y = 5.10$	ns
	30	4.85[b]	4.87[b]	4.87[b]	4.87[b]	4.85[b]	4.81[b]	4.86[b]	4.78[b]	4.81[b]	4.76[c]	4.91[b]	$\hat{Y} = Y = 4.84$	ns
Acidity / %	0	0.34[a]	0.29[a]	0.26[a]	0.20[a]	0.23[a]	0.17[a]	0.20[a]	0.20[a]	0.17[a]	0.17[a]	0.17[a]	$\hat{Y} = Y = 0.22$	ns
	15	0.87[b]	0.82[b]	0.73[b]	0.76[b]	0.67[b]	0.67[b]	0.67[b]	0.70[b]	0.76[b]	0.73[b]	0.67[b]	$\hat{Y} = Y = 0.73$	ns
	30	1.17[c]	1.17[b]	1.05[b]	1.23[c]	1.20[c]	1.17[c]	1.23[c]	1.17[c]	1.28[c]	1.34[c]	1.14[c]	$\hat{Y} = Y = 1.19$	ns

Averages followed by the same superscript letter in a column do not differ at the 5% probability level by the *F*-test. t: time; ns: not significant; acidity: % lactic acid; R^2: determination coefficient.

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