“Paste”- type gelling products based on sour cherry (Prunus cerasus), for use in industry

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Sour cherry, Prunus cerasus, Montmorency variety, introduced in Chile, has a pectin value of 0.4984 g% AGA (anhydrousgalacturonic acid), of which around 74.2 % are low methoxyl pectins (LMP) that gel with calcium ions. “Paste” type gelling products were made with different textural characteristics, according to their use in the food industry.

Parameters for formulation of the pastes (edible part: 91%; pH 3.5; 14.85° Brix) were pH (2.5 – 3.5 – 4.5); calcium (32 – 64 – 96 mg %); sucrose (10 – 20 – 30 g %) and low methoxyl pectin (0 – 0.5 – 1.5 g %); temperature (85°C for 90 min) storage (5°C for 280 days). Textural profile (TPA); colour (CIELAB) and microbiological analysis were controlled.

The pH influence on the textural and colour characteristics in paste 1 (pH 3.5; calcium 32 mg %); paste 3 (pH 2.5; calcium 32 mg %) and paste 5 (pH 4.5; calcium 32 mg %), present significant differences in hardness, gumminess and factor a* (redness).

For use in the food industry, textural characteristics as hardness (41.4 g); gumminess (25.8 g) and adhesiveness (- 43.7g*s) of paste 6 (pH 3.5; calcium 64 mg %; sucrose 20 g %; LMP 0.5 g %) for cake and patisserie filler; the greater hardness (100.3 g), gumminess (49.8 g) and adhesiveness (- 71.1 g*s) of paste 7 (pH 3.5; calcium 64 mg %; sucrose 10 g %; LMP 1.5 g %), for tart preparation; and the sour-sweet and greater fluidity (hardness: 7.9 g; gumminess: 6.1 g; adhesiveness: -1.1 g*s) of paste 8 (pH 2.5; calcium 96 mg %; sucrose 30 g %; LMP 0.0 g %) for sauces for meat. Products can have a shelf life of over nine months.