Title	Nitrates, nitrites, and oxalates in products of spinach and New Zealand spinach Effect of technological measures and storage time on the level of nitrates, nitrites, and oxalates in frozen and canned products of spinach and New Zealand spinach
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Citation	Food Chemistry Volume 93, Issue 3 , December 2005, Pages 395-401
Keyword	Spinach; New Zealand spinach; Nitrate; Nitrite; Oxalate; Frozen product; Canned product

Abstract

The effects of blanching of raw materials before preservation, their freezing and sterilization and of the time of storage products on the contents of nitrates, nitrites and oxalates in spinach and New Zealand spinach were compared. In comparison with 2-min blanching, the cooking of the raw material for four minutes before preservation contributed to a distinctly greater decrease in the content of the analysed compounds. The pre-treatment raw materials contained less nitrates (by 4–14%), nitrites (by 0–16%), water-soluble oxalates (by 15–24%), and total oxalates (by 9–19%). With the two preservation methods, the level of nitrites increased by 8–78% after freezing and by 8–41% after sterilization. The production of canned vegetables additionally contributed to the reduction of oxalate content by 21–38% in water-soluble oxalates and by 5–26% in total oxalates. After a one-year storage, canned products contained smaller amounts of the determined compounds than frozen vegetables, except for total oxalates in New Zealand spinach. New Zealand spinach preserves contained less nitrites and oxalates and much more nitrates than the products of spinach.