



New study identifies limits of sodium reduction in dairy foods

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By Guy Montague

New research suggests that reductions in the sodium content of dairy foods may be more noticeable in simpler products and require appropriate labelling to be acceptable to consumer taste buds.

Writing in the *Journal of Dairy Science*, scientists at North Carolina State University sought to find out if small reductions in sodium would go unnoticed and whether labelling would improve consumer acceptance.

The researchers found that panelists noticed reductions in salt concentrations of less than 20 per cent in milk-based soup, cottage cheese and cheese sauce. This suggests that gaining consumer acceptance for 'reduced sodium' dairy foods could be challenging as FDA rules require a 25 per cent reduction in usual sodium levels for 'reduced sodium' labelling to be used.

Variation between products

However, the researchers found significant differences between the different foods, with higher sodium reductions most noticeable in cottage cheese – the most mild-tasting, simple product under test.

Consumers noticed a reduction in sodium of only 8 per cent in cottage cheese, compared to a 15 per cent reduction in milk-based soups and an 18 per cent cut in cheese sauce.

The higher threshold for cheese sauce may make some salt cuts easier but how far they can go is questionable.

The researchers said: *"This is good news because cheese sauce is an ingredient in many food products; however, reducing the sodium significantly could cost the food industry consumer loyalty because one driver of liking is salty taste."*

Benefits of labelling

One way to keep consumers onside when cutting back on salt is to explain why the move is beneficial. The scientists said consumers were more accepting of reduced sodium cottage cheese in the study when the health benefits were explained.

"Labelling plays a key role in consumer acceptance of products," said the researchers. *"Consumers tend to look upon products more favourably if there is justification for the reduction of certain attributes."*

But even with the benefit of labelling and appropriate marketing, the scientists said the industry would benefit more research into salt alternatives.

"These results suggest that reducing sodium in cheese sauce, cottage cheese, and milk-based soups may be challenging and that exploration of sodium chloride alternatives in these foods is warranted."

Part of the funding for the study was provided by Dairy Management Inc. Leading cheese companies recently assembled to discuss the issue of sodium in cheese at a meeting hosted by the Innovation Center

for US Dairy, a group set up by Dairy Management. Please [click here](#) to read an article summarising the conclusions from the meeting.

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Salty taste in dairy foods: Can we reduce the salt?

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