



# Working in Partnership

## Consultancy project with Bottlegreen

### Overview

This project involved the review of the health benefits of elderflower for Bottlegreen, a drinks company in the Cotswolds. Bath Spa University's nutrition experts conducted a critical literature review of the health benefits of elderflower and provided Bottlegreen with a full report.

### About the Project

Nestled in a tiny village in the heart of the Cotswolds, Bottlegreen's factory has been carefully crafting a delicious range of soft drinks since 1989, when the company first started bottling the taste of the English countryside and launched its first product - the now much acclaimed 'Elderflower Cordial'.

Within a year of selling their elderflower cordial to local delis and farmers' markets the Waitrose supermarket chain came knocking on their door, and so began a trading relationship that has lasted to this day. They also started to experiment with different flavours and types of drink. In 2007, Bottlegreen won the prestigious Good Housekeeping Award for The Best Soft Drink of 2007. They improved and extended the entire factory, increasing production capability and efficiency.

Preparations of the flowers from the elder tree have been used in folk medicines for centuries, and there are many claims regarding their health benefits. European elderflower (*Sambucus nigra*), has been one of the most widely exploited species, and applications include the treatment of hayfever, inflammation, herpes simplex viral infections (cold sores), ear infections, rheumatic problems, kidney complaints, constipation and symptoms of cold and flu. Alongside these, it is also claimed by herbalists that elderflower can act to promote the immune system and stimulate circulation. Preparations include teas, soft drinks, alcoholic fluid extracts, tinctures and solid dosage tablets, as well as topical applications to treat the skin. However, despite its long use as a traditional 'folk' remedy very few scientific studies have been carried out to assess its potential.

### Benefits

Bottle Green was able to draw on the expertise of a specialist with an extremely extensive publication record. Additionally, this project has strengthened the relationship between Bath Spa University and Bottlegreen, who continue to use the University's research and consultancy services.



### Fast Facts

- Nutrition experts undertake critical literature review and report on health benefits of elderflower.
- Results support some of the traditional medical uses of elderflower.
- Projects with industry enrich the curriculum for Bath Spa University students.

## Outcomes

This project came to fruition as a result of an exploratory meeting between Dr Anil de Sequeira, Head of Food & Nutrition in the Department of Science at Bath Spa University, and Bottlegreen.

The project involved Bath Spa University's nutrition experts working through several scientific databases and scientific papers in peer-reviewed journals. They then wrote a critical literature review on the health benefits of elderflower for Bottlegreen.

Although elderflower has been used widely as a traditional medicine for the treatment of a range of conditions, there is currently a lack of scientific evidence to support its application. Certainly, no meaningful human clinical trials have been carried out to definitively assess its medicinal use. There is circumstantial evidence that elderflower extracts may be a source of antioxidants, as certain plant flavonoids - which have demonstrated this activity in unrelated research - have been isolated from elderflower preparations. However, the current lack of dietary guidelines for flavonoids, limits the usefulness of this data.

The results from a small number of studies suggest that elderflower may have anti-inflammatory potential. Although a larger number of studies would be needed to demonstrate this conclusively, these results do support some of the traditional medical uses of elderflower. The burgeoning literature focussing on the health benefits of plants - particularly as a source of antioxidants - together with the long history of elderflower in traditional medicine, suggest that in the near future studies with more conclusive results will be forthcoming.

This is just one example of the several projects that we have conducted for Bottlegreen.

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## Perspective

“As a Human Biologist, who lectures on the BSc (Hons) Human Nutrition specialised award, it was very exciting for me to bring my expertise in biology to this project.”

**Dr Samantha Lane**  
Senior Lecturer in Human Biology



Dr Samantha Lane