

Swiss chard - an ancient vegetable, rediscovered



In keeping with the main harvesting period for this crop in July and August, we are dedicating this blog post to the delicious vegetable Swiss chard (Latin *Beta vulgaris* ssp. *vulgaris*). This aromatic leafy vegetable belongs to the goosefoot family (Chenopodiaceae) and is therefore related to beetroot and sugar beet [1]. The history of Swiss chard dates back over centuries [2]. The predecessors of today's Swiss chard probably grew wild in antiquity, on the coastline of the Mediterranean Sea and in the Middle East. Until well into the 20th century Swiss chard was popular and frequently eaten in this part of Europe, when it was then replaced with the similar-looking spinach. In the past, sugar was even obtained from the carbohydrate-rich roots of Swiss chard by boiling the vegetable. Meanwhile, Swiss chard has been superseded in this regard by the sugar beet [3]. Swiss chard is now regaining popularity – and we can see why!



Health and nutrition

Home-grown Swiss chard, in particular, is an affordable source of nutrients. It is low in calories and contains many health-promoting constituents. Integrated into everyday cooking, the vegetable makes an important contribution to a balanced, health-orientated diet [4]. Swiss chard is rich in protein and, in addition to fibre, also provides a particularly high amount of vitamins, minerals and secondary plant substances [4, 5]. Fibre has many positive effects on health; professional associations believe it protects against breast and colorectal cancer [6]. The leafy vegetable also contains a large amount of vitamin K, which is particularly important for blood clotting and bone preservation [7].



With regards to cancer, foods containing secondary plant substances are especially noteworthy. Swiss chard contains so-called apigenin flavonoids which, in a cell model, showed antioxidative, anti-inflammatory and antiproliferative effects [2, 4]. ‘Antiproliferative’ means that it counters the spread of cells into surrounding tissues. This is crucial with regards to cancer, as a tumour develops mechanisms which enable it to grow extremely quickly and uncontrollably [8]. Even though such observations of isolated cells cannot be applied to the human body without further research, the findings nevertheless give cause for hope. Secondary plant substances contained in Swiss chard can also assist in weakening the side effects of conventional cancer treatments and the resistance of tumour cells against therapeutic substances [4].

Swiss chard has a comparatively high oxalic acid content, as do rhubarb and spinach. For this reason it should not be eaten raw. The concentration of oxalic acid is reduced when cooked. Nevertheless, individuals with renal disease should be cautious when eating Swiss chard [9].

In the kitchen



There are meanwhile numerous varieties of Swiss chard with various leaf colours, including from yellow, light to dark green and dark red. Fundamentally, there is a distinction between two main varieties: Leafy Swiss chard can be harvested several times (cut and come again harvesting) and has smaller leaves and thinner stalks. With this variety, all of the leaf can be prepared for eating, including the stalks. In the case of stalky or ribbed Swiss chard, the wide, succulent stalk (midrib) is prominent, and it can be eaten in a similar way to asparagus [3]. Swiss chard doesn't stay fresh for very long so it should only be purchased shortly before use. This summer vegetable is often lightly fried in vegetable oil, seasoned with nutmeg and served as an accompaniment to a meal. For cancer patients suffering malnutrition, some cream can also be stirred in to enrich the dish. Alternatively, the leafy vegetable can be deglazed with balsamic vinegar after it has been steamed and served as a delicious starter with toasted pine nuts, freshly grated parmesan and oven-fresh baguette.

Sources:

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