Safety evaluation of plants collected from the wild served as food in Danish restaurants

Within the last decade the New Nordic Cuisine has received much media coverage. The restaurants have focused on increased use of locally grown plant food, including wild plants collected from the countryside. In addition, many cookbooks and guided nature walks have assisted interested consumers in the search for wild plants for culinary purposes. As part of a control campaign running from May–October 2016, the Danish food authorities investigated the use of plants picked from the wild, cultivated in private gardens or market gardens in restaurants and local food producers.

Here we present examples of safety evaluations of some of the 50 plant species identified from this campaign based on published phytochemical investigations and toxicological data in humans. In the period from February to October, 2017, searches were performed in databases on bibliographic information using the preferred scientific name, and if relevant also synonyms. The full scientific papers were obtained if abstracts described ethnobotanical studies on food use in European countries prior to 15 May 1997 (the date the first novel food regulation came into force), constituents (especially if toxicological relevant), experimental laboratory animal studies on the toxicological effects of the plants, or cases of intoxications in humans or animals exposed to the individual plants. For the majority of the plants no or very limited phytochemical and safety information were available. Additionally, we found that of the 50 plants reviewed almost half contained compounds with toxic or potentially toxic effects if eaten. For many of the remaining plants, the data was insufficient to establish a safe edible amount. Many of the species may be considered novel food according to the EU regulation, since a food use to a significant degree in EU member states prior to 15 May 1997 could not be established. This review has demonstrated a strong need for better information on novel food status and safety of plants picked from the wild or plants previously mainly cultivated e.g. for ornamental use but now introduced as food, so that food producers, chefs and writers of cookbooks also in future have a stronger attention on whether the plants are safe to eat.

General information
Publication status: Published
Organisations: National Food Institute, Division of Risk Assessment and Nutrition, Research group for Risk Benefit
Contributors: Egebjerg, M. M., Olesen, P. T., Eriksen, F. D., Ravn-Haren, G., Bredsdorff, L., Pilegaard, K.
Pages: S140-S140
Publication date: 2018
Peer-reviewed: Yes

Publication information
Journal: Toxicology Letters
Volume: 295
Issue number: Suppl. 1
Article number: P10-06
ISSN (Print): 0378-4274
Ratings:
BFI (2018): BFI-level 1
Scopus rating (2018): CiteScore 3.36 SJR 0.971 SNIP 1.028
Web of Science (2018): Impact factor 3.499
Web of Science (2018): Indexed yes
Original language: English
DOI:
10.1016/j.toxlet.2018.06.721
Source: Findit
Source-ID: 2499231187
Research output: Contribution to journal › Conference abstract in journal – Annual report year: 2018 › Research › peer-review