

HOW MUCH FRUIT AND VEGETABLES DO CHILDREN AND TEENAGERS CONSUME IN SWEDEN?



In the Vegetable Experiment, scientists at the Swedish National Food Agency enlisted the help of school classes to find out how much fruit and vegetables Swedish pupils eat. Each class chose a weekday, during the fortnight starting 15 September 2014, when all the pupils recorded the amount of fruit and vegetables they ate, both at school and at home. It is important for the National Food Agency to have knowledge of Swedish children's and teenagers' eating habits as it helps them to provide advice based on reality.

The Vegetable Experiment included all fruits and berries, legumes, vegetables, root vegetables and mushrooms. Potatoes are not included in the experiment, as they count, in this context, as a source of carbohydrate, similar to rice and pasta, and not as vegetables.

A total of 5533 pupils from preschool pupils up to those in the 3rd year of upper secondary school participated in the Vegetable Experiment.

The vegetable that the most pupils ate during the experiment was carrot, followed by cucumber, tomato and sweet corn. The most common fruit was apple, followed by

banana and 'small citrus fruit' (clementine, mandarin, satsuma).

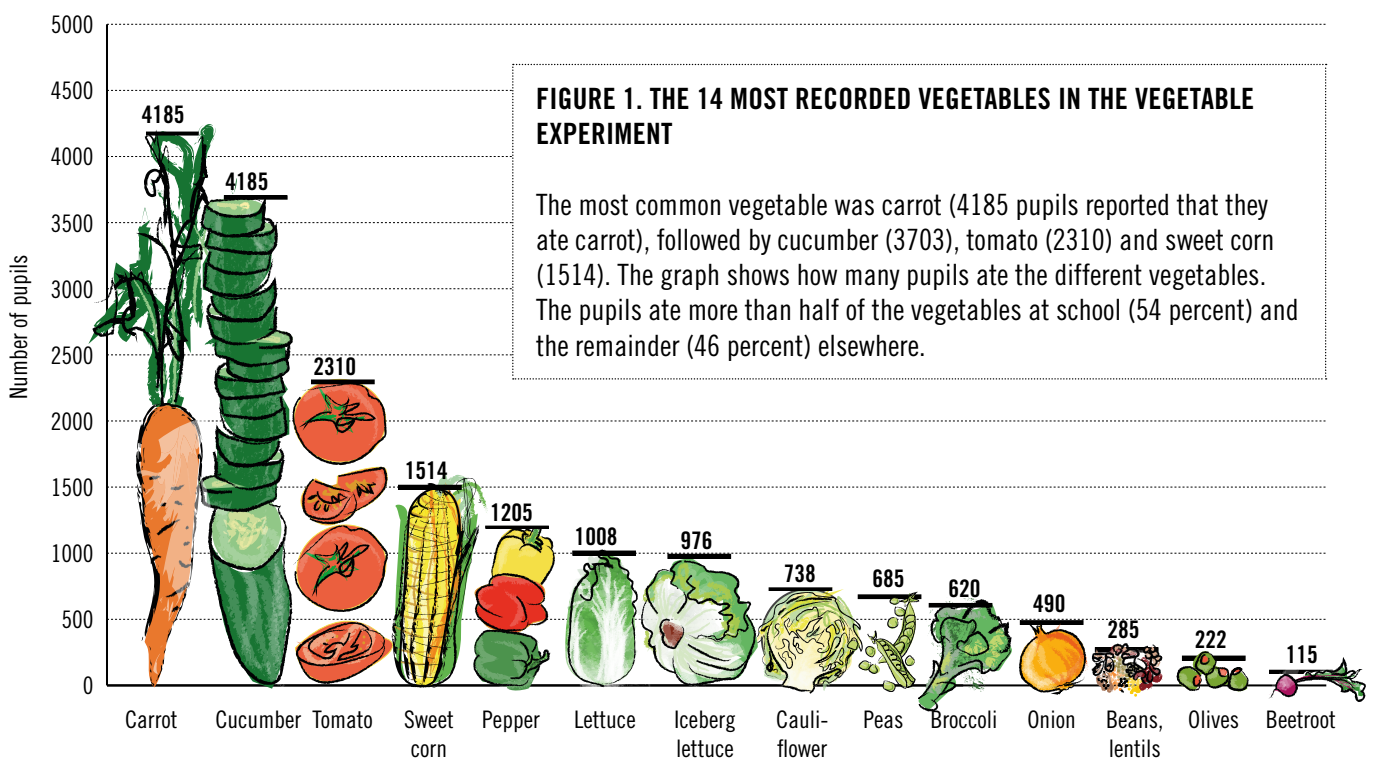
2939 of the pupils recorded the weight of the vegetables, fruits and berries they ate during day of the experiment. The weight varied widely – from 0 grams to over 1 kg. The average (the mean is the average value in the experiment) amount consumed by the pupils was 427 grams.

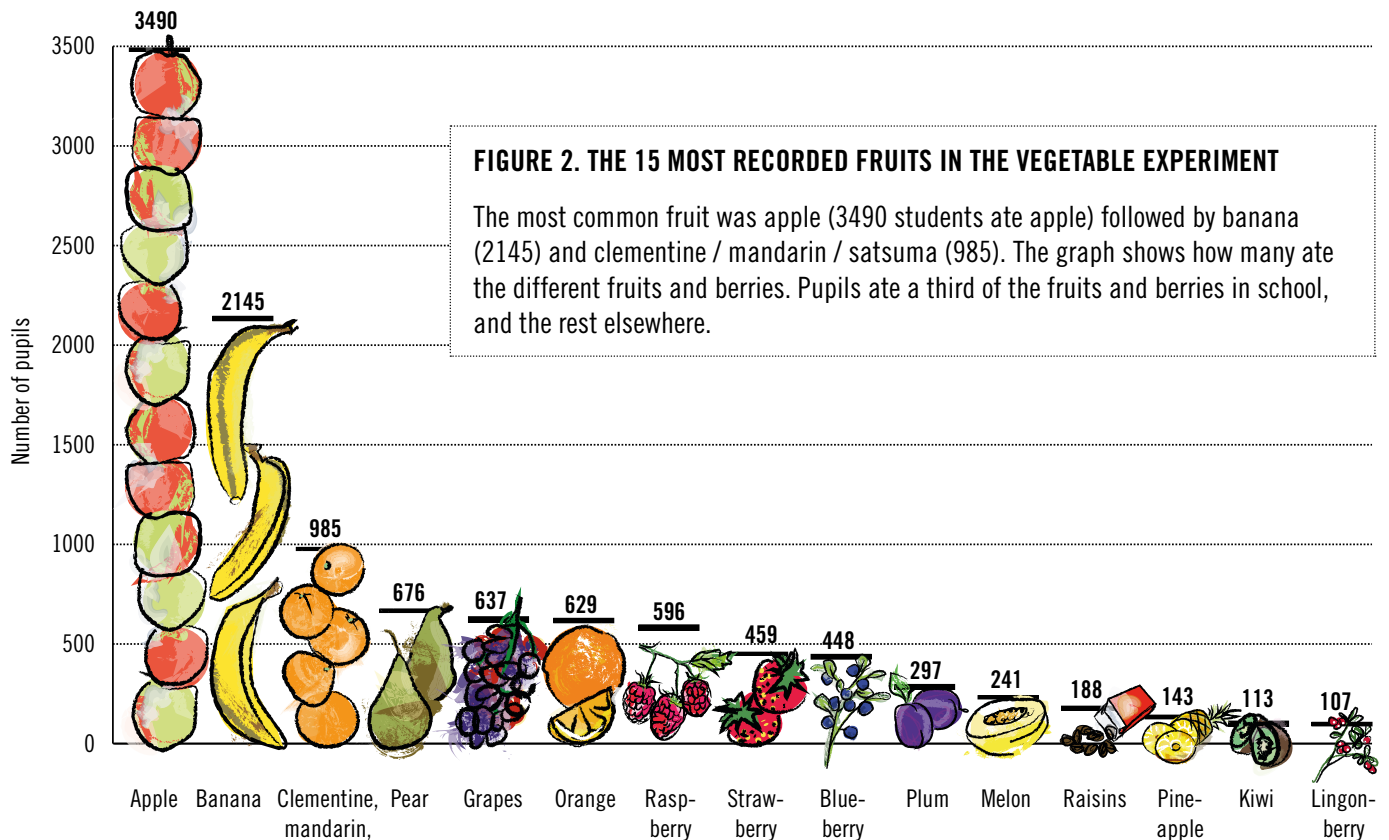
This is only slightly less than the 500 grams recommended by the National Food Agency. It's good news that Swedish children and young people seem to eat a lot of vegetables and fruit. However, there is some uncertainty whether the average

value is consistent with reality. A number of pupils reported very high values. It may be that some recorded too much because of difficulties calculating the weight of the fruit and vegetables.

A better figure of how much fruit and vegetables Swedish children and teenagers eat on average may be the median (the median is the middle value in the experiment), 365 grams. The median reduces the importance of values that are extremely high or low.

Pupils in year 3 or lower only recorded the types of fruit and vegetables that they had eaten – not how much.





Among girls in year 4 and above, a total of 40 percent ate 450 grams or more. The boys ate a little less: 33 percent ate 450 grams or more. The proportion of girls who ate 450 grams or more was higher than the boys in all years except for year 7.

Most pupils (73 percent) reported that they ate about the same amount of fruit and vegetables during the experiment as they usually do. One fifth (18 percent) said that they usually eat more vegetables. One tenth (9 percent) said that they ate more vegetables than usual during the experiment. The responses did not differ between boys and girls.

Another aim of the experiment was to see whether the order in which the vegetables and the main course are served in the school canteen affects the amount of vegetables that pupils eat. Unfortunately,

it was not possible to analyse the data in the way we had planned and we therefore were not able to answer the question. It is still an interesting question and the National Food Agency will try to answer it through future surveys.

All the teachers and pupils that participated in the Vegetable Experiment did a fantastic job, even though there were many who thought that it was quite difficult to record the results. A big thanks to all the teachers, pupils and parents who helped to generate new knowledge about Swedish children's and teenager's eating habits!

The Vegetable Experiment is a collaborative project between VA (Public & Science) and the Swedish National Food Agency.

The mass experiment is part of European Researchers' Night, a science festival

that takes place across Europe on the last Friday in September of each year.

The full report is available in Swedish at: www.forskarfredag.se/filer/ff2014-gronsaksforsoket-slutrapport.pdf



Ulla-Kaisa Koivisto Hursti, Researcher and Project Manager, Swedish National Food Agency and **Fredrik Brounéus**, Project Manager of the mass experiment, Vetenskap & Allmänhet (Public & Science)