**Evaluation of fruit and vegetable consumption as phytonutrient potential in Jordan**

Yonna Sacre1, Rachad Saliba2, Michael H. Böhme1

1Humboldt Universität zu Berlin, Faculty of Life Sciences, Dept. of Horticultural Plant Systems, Germany, Lentzeallee 75, 14195 Berlin

2Lebanese University, Faculty of Agriculture, Lebanon, Dekwaneh

ABSTRACT

Fruits and vegetables (FV) are known to contain considerable amounts of vitamins and minerals in addition to phytonutrients and bioactive compounds having many positive health effects in the prevention of diseases such as cardiovascular illnesses, cancer, etc. In frame of a project related to status of human nutrition in the East Mediterranean the consumption of FV as sources of phytonutrients was studied in Jordan. A cross sectional analysis of 144 Jordanian individuals aged between 20 and 65 years old living in Amman and the surrounding, was conducted. Sociodemographic, lifestyle, eating behaviour, food frequency questionnaire (FFQ) and awareness information were collected through a questionnaire specifically adapted for the purpose of the study. Statistical analysis was carried out and multivariate models were used in order to evaluate the association between fruits and vegetables consumption and different independent criteria. The FV consumption among the Jordanian population was not as high as expected according to the international recommendations, even though these produces are highly available in the country. Regarding vegetables, 38.0% of the Jordanian respondents, showed a medium level of consumption versus 29.3% having a low level of consumption. Related to fruit consumption, 36.8% Jordanian respondents consuming low level of fruits compared to 31.9 % of the Jordanian respondents, showing a high fruits intake. Furthermore, it was observed that the majority 54 % of the study population was highly aware of the importance of phytonutrients in FV and were willing to increase their consumption of FV so they can benefit from more phytonutrients. The FV consumption was the most associated with age, education level, employment, salary ranges, expenses on a monthly basis assigned for FV and herbs consumption. The findings stated that the most frequently consumed produces were cucumber, tomato, sweet potato, apple, orange, banana, olives, mint and thyme, and the consumption of FV in Jordan is low to medium, due to the effect of several socio demographic and lifestyle factors. Future governmental or national programs and interventions could be settled to encourage and increase the FV consumption among all the population age levels. Furthermore, laboratory analysis would be recommended in order to determine the exact amount of phytonutrients in the more frequently consumed FV, therefore, the proper recommendation regarding the quantities and types could be settled.

**Keywords:** Fruit, vegetable, health, phytonutrients, bioactive compounds, awareness