

## **Abstract**

Probiotics are living microorganisms which show positive effects on human health if consumed in a sufficient quantity. Probiotics have been under a lot of research recently, however their effectiveness in terms of treatment or prevention of diseases has not been supported by a sufficient number of studies and research yet.

The thesis summarizes the existing knowledge about probiotics, characterizes individual types of probiotic organisms, describes possible sources of probiotics and their impact on human health.

Theoretical part of the thesis deals with the definition of the concept of probiotics, also describes prebiotics and synbiotics which are closely related to this topic. characteristics of individual groups of probiotics as well as their impact on human health and possible use in the treatment of diseases as a form of biological treatment are also included. Furthermore the sources of probiotics both in the form of foods containing probiotics and in the form of probiotic dietary supplements are described. At the end of the theoretical part, recommendations for receiving and selecting a suitable source of probiotics are summarized.

The aim of the practical part was to find out if the general public is aware of probiotics. Questions about preferences in the selection and consumption of probiotic foods were included and the last final questions inquire about attitudes towards the use of dietary supplements containing probiotics. The results of the research are generally favourable, the public is well informed about the field of probiotics and perceives their importance in the diet. According to the respondents' answers fermented dairy products are consumed in a sufficient amount and the public includes also other sources of probiotics in its diet. Although food supplements containing probiotics are gaining in popularity, the public still prefers to consume probiotic foods, especially fermented dairy products or fermented vegetables. The research was carried out in the form of an online questionnaire and 278 respondents participated in.

**Key words:** probiotics, prebiotics, bacteria milk fermentation, microbiota, immunity, gut microbiota