Introduction: Studies to determine the diversity of macrofungi of our country have been continuing. Research to determine the biological activity and chemical composition of the identified fungi has also increased. Fungi being one of the most biodiverse groups of organisms in the world are increasingly importance in the food industry, medicine and pharmacology. Some species are consumed by being made culture as collected from the natural habitat. Fungi, which have a low ratio of carbohydrate and cholesterol and a high ratio of protein and vitamin, have become an the important food source, especially for dieters. Research has shown that fungi contain mono- and polyunsaturated fatty acids such as linoleic acid and oleic acid that can not be produced by humans. Laetiporus sulphureus (Bull.) Murrill (Fomitopsidaceae) which may be the saprophyte and parasite is an edible macrofungi when young. The aim in this study is to determine total protein and vitamin A, C, E values of Laetiporus sulphureus.

Material and Methods: Laetiporus sulphureus specimens used in the study were collected from different localities during the field trips in Tokat province. The samples brought to the laboratory were washed and then dried and pulverized with the aid of a disintegrator. The amounts of vitamins A, C and E in fungal samples were analyzed using an HPLC. Total protein was determined by Dumas protein analysis method.

Results: The total protein of Laetiporus sulphureus in dried samples used as research material was determined as 68.11%. The amounts of vitamins also were determined 121.64 μg g⁻¹, 547.38 μg g⁻¹, 0.084 μg g⁻¹ for A, E and C respectively.

Discussion: In this study, it was found that Laetiporus sulphureus, an edible macrofungus, contains significant amounts of protein, vitamin A, E and C. This wild macrofungi can be an important food source for humans. It has been collected and consumed naturally in some regions in our country. Although the number of naturally grown edible fungi is quite high, very few of them are known and consumed by humans.

Keywords: HPLC, Laetiporus sulphureus, Macrofungi, Total protein, Vitamins