## Reg. No: 2017/25/N/HS5/02982; Principal Investigator: mgr Katarzyna Fr czak

The purpose of the research is to answer the question whether the EU legislator establishes effective instruments for the protection of biological diversity in agricultural activities. This question requires an analysis of EU Common Agricultural Policy regulations in the 2014-2020 financial perspective, regulations on the use of fertilizers, plant protection products, seed, genetically modified organisms, Natura 2000 sites, organic farming and integrated crop protection.

The main objective of the research will be achieved by addressing the following specific research problems: 1. Does European Union law establish effective instruments for limiting the use of so-called agricultural chemicals such as chemical fertilizers and plant protection products; 2. Does EU law establish effective instruments to support the allocation of part of agricultural land for purposes not directly related to agricultural production; 3. Does European Union law establish effective instruments for the conservation of genetic resources of traditional plant varieties and breeds? 4. Does EU law establish effective instruments to counter the uncontrolled emergence and spread of genetically modified plants?

The reason for the research on the above-mentioned research topic is that, despite actions taken at both EU and international level, by 2010, the goal of halting the loss of biodiversity has failed. Loss of biodiversity and ecosystems is a threat to the planet, the economy and humanity. Humanity benefits from the richness of the natural environment in the form of so-called. Ecosystem services. These services include supply services (food, wood and fiber, drinking water, biomass as fuel, clean energy, genetic resources, natural medicine, pharmaceuticals), regulatory (maintenance of air quality, climate control, regulation of water circulation, erosion control, Biological control, pollination, control of extreme phenomena), cultural (recreation and ecotourism, ethical and spiritual values, educational values and inspirations) and support (habitats, elemental circulation, primary production, water circulation). Agricultural land occupies about 47% of the land of European Union countries. Agriculture plays a significant role in the protection of biodiversity. This role can, however, be positive and negative. Intensive conventional agriculture, based on monocultures, the use of chemical fertilizers and plant protection products, and sometimes uncontrolled use of biotechnology, contributes to the degradation of ecosystems. On the other hand, sustainable farming systems play a positive role in protecting rural biodiversity. Sustainable agriculture is the backbone of many ecosystems, characterized by rich biodiversity, contributing to the preservation of species diversity and high genetic reserves. Even if agricultural land is used primarily for the production of healthy and good quality food and renewable raw materials, biodiversity conservation and sustainable agricultural practices are closely linked.