The Determination of TKI-Humic Acid and Reduced Fertilizer Levels Effect on Yield and Quality in Potato under İzmir Ecological Conditions *(The final report is not published)*

Research Area	Soil, Water Resources and Environment
Research Program	Soil Fertility
Executive Institute	International Agricultural Research and Training Center- Menemen/İZMİR
Supporting Institute/s	General Directorate of Turkey Coal Enterprises-Ankara, Aegean Agricultural Research Institute - Menemen/İZMİR , E.Ü. Ödemiş Vocational School -Ödemiş/İZMİR
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Research Period	2013 – 2015

Project Summary: In this project it is aimed to increase the yield and profitableness of agricultural production of potato that has an important place for the agriculture of Turkey. The excessive using of inorganic fertilizer in potato causes pollution of soil and water resources. In our country, monoculture of potato is widespread. That's why the soil is under threat of pollution.

Fertilizer consumption and yield loses decrease when the usefulness of plant nutrition elements increased. The plants don't benefit from the important part of nutrition elements in the soil. Many factors effect the utility of plant nutrition elements as soil pH, soil temperature and cation exchange capacity. Additionally nutrition elements constitute different compounds with other elements in the soil and turn into useless form for plants. Humic substances regulate the structure of soil positively and increase the benefits of nutrition elements.

The inadequate quantity of organic matter in our soil effects the soil structure negatively. Using of farmyard manure has been decreasing. Therefore it is important to compensate it by organic matters like humic acid. The plant-available form of nutrition elements with humic acid that will be practice into soil and increasing potato yield is aimed. So it will be aimed saving fertilizer consumption. Humic acid practice will compensate for the decreasing fertilizer quantity because of economic causes and yield loses will be minimized. Low cost sustainable potato production without causing soil and water pollution is main target of the project. In this project using humic acid in organic form improves soil structure for plants and maximum usefulness from the nutrition elements in the soil is aimed. This project will be carried out to increase the potato yield and to expand using adequate fertilizer.

In this project the effects on potato productivity of humic acid alone and with low inorganic fertilizer (NPP) doses will be searched. It is aimed with expanding of organic matters like humic acid will contribute to sustainable agriculture.

Key words: Potato, Solanum tuberosum L., Humic Acid, Nitrogen, Phosphorus, Potassium