

Changes in Physical Soil Properties and Crop Status on Soil Enriched With Treated Manure

Authors : Vaclav Novak, Katerina Krizova, Petr Sarec

Abstract : Modern agriculture has to face many issues from which soil degradation and lack of organic matter in the soil are only a few of them. Apart from Climate Change, human utilization of landscape is the cause of a majority part of these problems. Cattle production in Czechia has been reduced by more than half in recent 30 years. However, cattle manure is considered as staple organic fertilizer, and its role in attempts for sustainable agriculture is irreplaceable. This study aims to describe the impact of so-called activators of biological manure transformation (Z'fix, Olmix Group) mainly on physical soil properties but also on crop status. The experiment has been established in 2017; nevertheless, initial measurements of implement draft have been performed before the treated manure application. In 2018, the physical soil properties and crop status (sugar beet) has been determined and compared with the untreated manure and control variant. Significant results have been observed already in the first year, where the implement draft decreased by 9.2 % within the treated manure variant in comparison with the control variant.

Keywords : field experiment, implement draft, vegetation index, sugar beet

Conference Title : ICATPA 2020 : International Conference on Agricultural Technology and Precision Agriculture

Conference Location : Rome, Italy

Conference Dates : May 04-05, 2020