INTRODUCTION

Different environmental analyses show that agricultural activities are one of the many local and global emissions sources (Nourtziou et al., 2017; Robertson et al., 2000). The agricultural sector is facing increasing public expectations regarding global environmental impact (Kamdem et al., 2015). Agriculture, forestry, and other land use (24% of total greenhouse gas emissions) from this sector mostly come from agriculture (cultivation of crops and livestock) and deforestation. This estimate does not include the CO2 that escapes directly from the atmosphere by burning of biomass, dead organic material, and soils, which altogether approximate 20% of the emissions from this sector. Crop production – one of the most important, expected and fuel-consuming processes in agriculture. Thus, the aim of strategically mixed compositions replaces the properties of soil and reduces fuel consumption during soil tillage and environmental pollution. The application of an innovative method to crop production can reduce CO2 (Fig. 1) and contribute to the implementation, renewal and development of EU environmental and climate policies and legislation, which could create added value for Europe (GCP, 2016).

There are many specialized researches on the influence of different bio-impact on the various parameters in agriculture. Different bio-impact effects remain properties and the composition of soil, plant roots, harvest, and technological processes. Total Global warming potential as well as the interactions between different parts of the soil, making machinery tools, and the agricultural processes and environmental pollution with helpful ways.

To summarize wide coverage investigations of various aspects of different bio-impact objectives – to identify the bio-impact sustainability by accounting for many criteria in several aspects. The aim – to test different bio-impact methods on soil characteristics, tillage and yield from environmental and economic aspects.

RESULTS

- Yield (t/ha)
- Shallow-tillage consumption (%)
- Deep-tillage consumption (%)
- Density (g/cm³)
- Moisture (%)
- Total porosity (%)
- CO2, g/m²/yr
- Structural stability (%)
- Traits (%)

EXPERIMENTAL

Experimental research shows that different bio-impact of agricultural practices can be essential to achieve a reduction in fuel consumption, followed by reduction in CO2 emissions from machinery and changes in soil tillage and environmental composition, yield and other parameters. A microbe assessment of the essential properties would give farmers new opportunities for reducing fuel consumption and increasing agricultural production. Thus, reducing the negative environmental impact of soil cultivation processes, increasing yields and improving soil quality in the process investigated from the environmental perspective can be crucial for the essential links, such as reducing energy consumption, reducing environmental pollution, improving soil and biomass yields, and productivity. It is reasonable. The evaluation of the bio-impact effects in agriculture is essential in improving many criteria in several aspects was the main object of the microbe assessment.

To test the best bio-impact for each criterion, the most important goal was to examine, measure, and optimize some of the values of the indicators by replacing the formulas. Microbe assessment was the most prominent influence of the first and third soil bio-impact by solution of Azotobacter vinelandii bacteria, humic acids, phosphoric acid, copper, zinc, manganese, iron, calcium, and sodium nitrates.

CONCLUSIONS

- Conducted microbe calculation of distinct soil bio-impact effects in agriculture and unlimited mode covering investigations of varieties aspects.
- Discussed one bio-impact for maximization values of yield, total porosity, humus, stabilization of phosphorus and diesel burning fuel consumption, density, CO2 emission, optimization of measures indicated.
- After the main evaluation of criteria based on scenario ratings, the data highlighted the most effective bio-impact for different measures and excellent parameters of soil bio-impact (Table 1).
- Azotobacter vinelandii bacteria, humic acids, phosphoric acid, copper, zinc, manganese, iron, calcium, and sodium nitrates.

It was demonstrated that the evaluation of the bio-impact influence of different microbe composition with different microbe solutions, could be considered towards a reduction in fuel consumption, ideal evaluation of CO2 emissions, from machinery, dynamics of soil composition, properties and yields.

REFERENCES

- The data for analysis with the statistics for evaluation and calculation of (Table 1).
-びる, 眞美, 真美, 真美, 真美, 真美, 真美, 真美, 真美, 真美, 真美, 真美, 真美, 真美.

The bio-effect on complex of different characteristics of soil, tillage and yield in crop production

Vilma NAUJOKIENE, Kristina LEKAVIČIENĖ, Egidijus ŠARASUKIS, Keptutis ROMANECKAS, Simona PAULIKIENĖ

Vytavngus Magnus University, Lithuania