

## МОЛОДЕЖНАЯ СЕКЦИЯ

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### ADVANTAGES OF USING DIGESTATE OF BIOGAS TECHNOLOGIES

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Currently, the actual problem of agricultural complexes is the formation of a large volume of waste. Over the past 15 years, biogas plants have become widespread, which are based on anaerobic digestion and allow obtaining such valuable products as gaseous fuel (biogas) and organic sediment (digestate).

Anaerobic digestate is an organic mass of improved composition. This product is valuable because it contains elements useful for soil and plants. As a result of the digestion of wastes in a biogas plant, phosphorus and potassium compounds are mineralized and become more accessible for assimilation by plants. The amount of ammino-ammonia forms of nitrogen is also increasing. According to some studies, 1 ton of digestate contains: 35 kg of organic matter, 3.1 kg of nitrogen, 1.6 kg of phosphorus, 2.1 potassium and 2.4 kg of calcium [1]. Substances such as amino acids, monosaccharides, B vitamins and other substances are present in different percentages. Fertilizers obtained using biogas technologies increase the yield of various crops by up to 30 %, which is confirmed by many studies.

#### References

1. Bredikhin, V. P. Processing of manure effluents of pig breeding complexes at biogas plants in order to obtain highly effective organic biofertilizers / V. P. Bredikhin, Ya. I. Temnikova, I. V. Golotova // A collection of scientific papers based on the materials of the International Scientific Ecological Conference, Krasnodar, March 26–27, 2019 / Kuban State Agrarian University named after I. T. Trubilin; ed.: I. S. Belyuchenko. – Krasnodar, 2019. – PP. 505–508.