

RESEARCH ON AGRONOMIC AND ECONOMIC EFFECTIVENESS OF WASTES FROM THE WINE INDUSTRY USED AS FERTILIZER IN THE REPUBLIC OF MOLDOVA

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Abstract

Winemaking in Moldova is one of the main sectors of national economy, and this branch requires continuous implementation of new performance achieved in science and technology. In the last years, about 300-350 thousand tons of grapes are processed. From this amount, we get 60-75 thousand tons of byproducts: pomace, lees, vinasse, wastewater, etc. All these products represent a source of environmental pollution and create major environmental problems. At the same time these wastes contain a major amount of organic biofile elements (N, P₂O₅, K₂O), a number of micronutrients so necessary for plants.

Lees and vinasse were tested as an organic fertilizer in the vineyards at the Technological-experimental station "Codru", municipality Chisinau.

Fertilization of vineyards with vinasse and lees led to increase of humus content in the soil with 0.18-0.38%, mobile phosphorus with 0.37-0.72 mg/100 g soil and exchangeable potassium with 12-15 mg/100 g soil. Annual production of grapes increased with 1.5-2.0 t/ha, constituting profitability of 115%.

Thus, the rational use of agricultural waste wine will solve two major problems: first - ecological by reducing environment pollution and second - increase soil fertility and productivity of field crops.

Key words: vinasse, lees, organic fertilizer
