

## **ENERGY ASPECTS OF AGRICULTURAL WASTE MANAGEMENT**

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**Abstract.** Among all renewable sources biomass has by far the biggest potential for further development. Biomass is an energy carrier that can be offered in solid, liquid and gaseous form. It can be processed for receiving different kinds of energy: heat, electricity and biofuels. The necessary raw material for energy production should be provided by agriculture and forestry using all kinds of by-products such as wood residues (from perennial plantations), straw and hay, and manure for biogas production, including municipal waste. The agricultural waste is a result of the farmers' activities. Therefore, the energetic use of agricultural waste must be embedded within the agricultural policy developed and promoted by the government and the agricultural organisations. This will allow the reduction of solid agricultural waste, the better land use and will improve the ecological state of the environment. The waste from crop production could be used for briquetting or composting, while the animal manure is a source for biogas production with a possibility of composting the dry residues. Composted materials are a good opportunity for organic farming.

**Keywords:** biomass, agricultural residues, renewable sources of energy, waste management.

### **AIMS AND BACKGROUND**

The rapid increase of world population in the recent years accompanied by the intensification of human activities brought to serious ecological problems such as the pollution of soil, water and air, forest destruction, etc. In future these negative impacts might cause global climatic changes (greenhouse effect) and might be a menace for the existence of the human race. Immediate measures to avoid the negative influence of human activities are necessary.

Many industrial processes result in a large amount of waste. Agriculture is one of the oldest human practices but as a source of waste it does not make any exception from other industrial activities. In the near future the management of the agricultural waste will play an important role in the conservation of the natural resources in all countries of the Balkan region.

The aim of this paper is to discuss the sources of agricultural wastes in Bulgaria and the way of its utilisation. The possibility of its processing for energy production is specially emphasised.

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\* For correspondence.

# Food Fertilizer And Agricultural Residues Proceedings Of The 1977 Cornell Agricultural Waste Management Conference

**R. Bhamidimarri**



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