## Effect of Gasifier Effluent on Agricultural Production and Soil

Lata Tripathi<sup>1</sup>, Anil Kumar Dubey<sup>2</sup>, A. K. Mishra<sup>3</sup>, C.B. Tripathi<sup>4</sup>, Prashant Baredar<sup>5</sup>

## **Abstract**

Gasifier generates wastewater during cooling and cleaning of producer gas. This wastewater contains some harmful chemicals which adversely affect the natural stream if disposed off without treatment. In present research work the effect of gasifier effluent on agricultural soil and vegetable production was investigated. Experiments were conducted on seasonable vegetables like radish, spinach and tomato plant. Each plant was irrigated with gasifier wastewater and treated wastewater to study the effect of these water and compare with control plants which were irrigated by tap After irrigation with gasifier water. wastewater and treated wastewater, different physico- chemical analysis of soil and growth parameters of plant were done and found that gasifier wastewater is not suitable for

agricultural field. It inhibits or delayed growth of plants, but after suitable treatment gasifier wastewater can be useful for agricultural field.

**Keywords:** gasifier effluent, agricultural field, physicochemical analysis, growth parameter

Corresponding

author(e-mail:

lata mudgal@yahoo.co.in)

<sup>&</sup>lt;sup>1</sup> Rajiv Gandhi Proudyogiki Vishwavidyalaya, Bhopal

<sup>&</sup>lt;sup>2</sup>Central Institute of Agricultural Engineering, Bhopal

<sup>&</sup>lt;sup>3</sup> Chemistry Deptt., Ujjain Engineering college, Ujjain

<sup>&</sup>lt;sup>4</sup> Indian Grassland and Fodder Research Institute, Jhansi

<sup>&</sup>lt;sup>4,5</sup> Maulana Azad National Institute of Technology, Bhopal