

COMMERCIAL APPLICATION OF LATEX SLUDGE AS FERTILIZER : A PRELIMINARY ASSESSMENT

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Latex sludge, a waste material from latex centrifuging industry was evaluated as a source of nutrient for immature rubber in field condition. Results indicated that the sludge as a phosphatic source was comparable to two other sources assessed. The estimate of sludge potential showed that 400 MT per annum can be realised at 70 per cent capacity utilisation of the latex processing industry. The potential savings by using the sludge as fertilizer was estimated to be Rs.22.06 lakhs per annum. The estimated additional employment opportunities on account of the commercialisation of sludge processing was 8,800 mandays.

Key words : Natural rubber, Latex sludge, Phosphatic fertilizer.

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INTRODUCTION

The concept of sustainable economic development is now widely accepted as a desirable goal by both the industrialised West and the developing countries. The main concerns are the declining capacity of the earth to produce vital renewable resources on account of growing industrial activity and the consequent environmental degradation. Compatibility of economic growth with the protection of environment as a means for achieving sustainable development in the sphere of industry and agriculture assumes importance in this context.

Industrial wastes which are not acceptable for discharge to water, including solids, sludges and some liquids, are normally disposed on land. Sludge is the concentrated solid material withdrawn from waste water. Over the years, concern for

energy and resource conservation has changed the philosophy of sludge disposal to one of sludge utilisation as abundant and cheap energy supplies would not be available in perpetuity (Schmidtke, 1979). After treatment or recycling sludge assumes the properties of a plant fertilizer and soil conditioner depending on the nature of the waste, process technology, volume and value of reversible materials, processing cost and the extent of environmental pollution. The nutrient and energy values of sludge have attained commercial importance to the extent that at present it is being increasingly used as a soil builder as well as fertilizer in many countries.

The present study was an attempt to assess the commercial feasibility of using latex sludge as a fertilizer which is otherwise considered as a waste material originating from centrifuged latex processing. The nutrient elements phosphorus and