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### Sawdust and Endocellulase: A review

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Lignocellulose is a major renewable natural resource of the world and represents a major source of renewable organic matter. It is the major structural component of plant biomass such as woody and non-woody plants. The recent thrust in bioconversion of agricultural and industrial wastes to chemical feedstock has led to extensive studies on cellulolytic enzymes produced by fungi and bacteria. Cellulase is a synergistic enzyme that is used to break up cellulose into glucose or other oligosaccharide compounds. Sawdust is a byproduct produced from the wood processing industry. Generally sawdust composed of fine particles of wood. Sawdust has a variety of practical uses, such as in agriculture mulch and also in the manufacturing of the

particle board. The abundance of sawdust waste is hence seen here as a good supporting factor in considering its usage as potential substrate for bioprocesses. The utilization of sawdust as a potential substrate for producing enzymes may serve a dual purpose of reducing the environmental pollution along with producing a high value commercial product. Pretreatment is necessary to reduce recalcitrance of lignocellulosic biomass for enhancing cellulose component to enzymatic hydrolysis in subsequent steps. Sawdust was investigated for their ability to support cell growth and cellulase production. This work focuses on factors relevant for improvement of enzymatic hydrolysis of saw dust.

### Biography

D. K. Acharya is an Assistant Professor at Department of Microbiology, Faculty of Applied Sciences, Parul Institute of Applied Sciences and Research, Parul University, India. He has responsibility of teaching and independent research at post graduate and undergraduate level. He is completed his PhD in 2011, MPhil in 2008 and MSc with Microbiology in 2006 from Gujarat Vidyapith, Ahmedabad, India. His expertise field is the applied microbial research. He is a Member of Editorial Advisory Boards of Refereed Journals. Managing Director, Microbiology world (e-Magazine) ISSN 2350-8744 (Sep 2013 to Feb 2014). International Journal of microbiology and Allied Sciences, ISSN 2382-5537

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