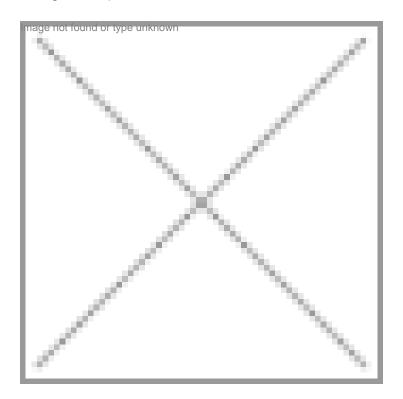


## **BioIndustrial Analysis**

10 August 2004 | News



Enzymes are used in many industries like healthcare, starch processing, breweries and distilleries, industrial alcohol, textile processing, garment and denim washing, detergent and cleaning aids, leather processing, baking and flour milling, food processing, animal and fish feeds, natural extracts and waste treatment. Enzymes have potential use in many ways in these sectors.

In the leather industry, enzymes help in rapid scud loosening, wetting and degreasing, removal of adhering fatty tissues from the skin. Apart from these, many more applications have attracted entrepreneurs to look at this sector as a lucrative one. In paper pulping, xylanases are sometimes used to avoid the need for chlorine. This technology has been around for about 10 years, but its impact on chlorine use has been modest because of the associated cost and impact on yield. Detergents is an old and well established market for industrial enzymes that include proteases, amylases, cellulases and lipases. In textiles, a fairly well-established application for enzymes is the fading of denim. However, consumption is no longer as steady as it used to be, now that most of the world's denim is produced in India and South America.

The leading Indian companies in the sector include Biocon (66.5 crore), Novozyme (65 crore), Advanced Biochemicals (30 crore), Rossari Biotech (24 crore) and Maps India (17 crore). The total size of the sector in India is about Rs 250 crore.

The other players in the sector include Fermenta Biotech, a part of the Vasant Kumar Group, Maple Biotech, Textan Chemicals, a Chennai-based player in enzymes for the leather industry, Pappayin Produckts (India), a leading company of Keartiman Group of Coimbatore, Lumis Biotech, a Kgenix Group company, Celgen Biologicals, a subsidiary of ABL Biotechnologies, AVON Organics, Organic Solutions, Resil Biotech, a division of Bangalore-based Resil Chemicals and

Sangitha Biochemicals. Many companies not only produce but also export their products to many Asian and European countries.

		lia) have received the ISO certification for their facilities and hscious and are meeting the international standards.
ପ୍ରିନ୍ୟୋକring the opportunity in t Concord Biotech are making in	II - 1	agri and pharmaceutical companies like Excel Industries and
hesezompanies produce vari papains, bromelain, catalases a		proteases, cellulases, xylanases, glucoamylases, pectinases, piological products.
advanAful Brewelleni, Karan A of Phagwara and Zytex (India).	gencies of Mumbai, Souther Even the Danish company C	rt enzymes for the local market. The agencies include Delhi- n Marketing Agency of Chengannur, Sukhjit Starch & Chemicals HR-Hansen has set up a shop in India to market its products
used in food processing industr Rossari Biotech There is a lot of opportunity in t	24	put the value of the global industrial enzyme market, including
	rowing markets are fuel eth	lp and paper, leather and manufacture of chemicals at \$1.6 anol, animal feed and food enzymes. Novozymes and Genencor, in industrial enzymes.
volume has been accompanied New applications have also he	ව්ර් downward pricing press lped drive demand and th	bace, boosted in part by demand from emerging markets, but this sure as a host of smaller players compete for a piece of the pie. e industry is responding with a continuous stream of innovative
production, from plants and veg	eta⊌e origin, fermentation-t	erent types of industrial enzymes, using all the natural methods of oth with solid state and submerge culture techniques. Companies development of new innovative products but also towards making
them available at an economica		