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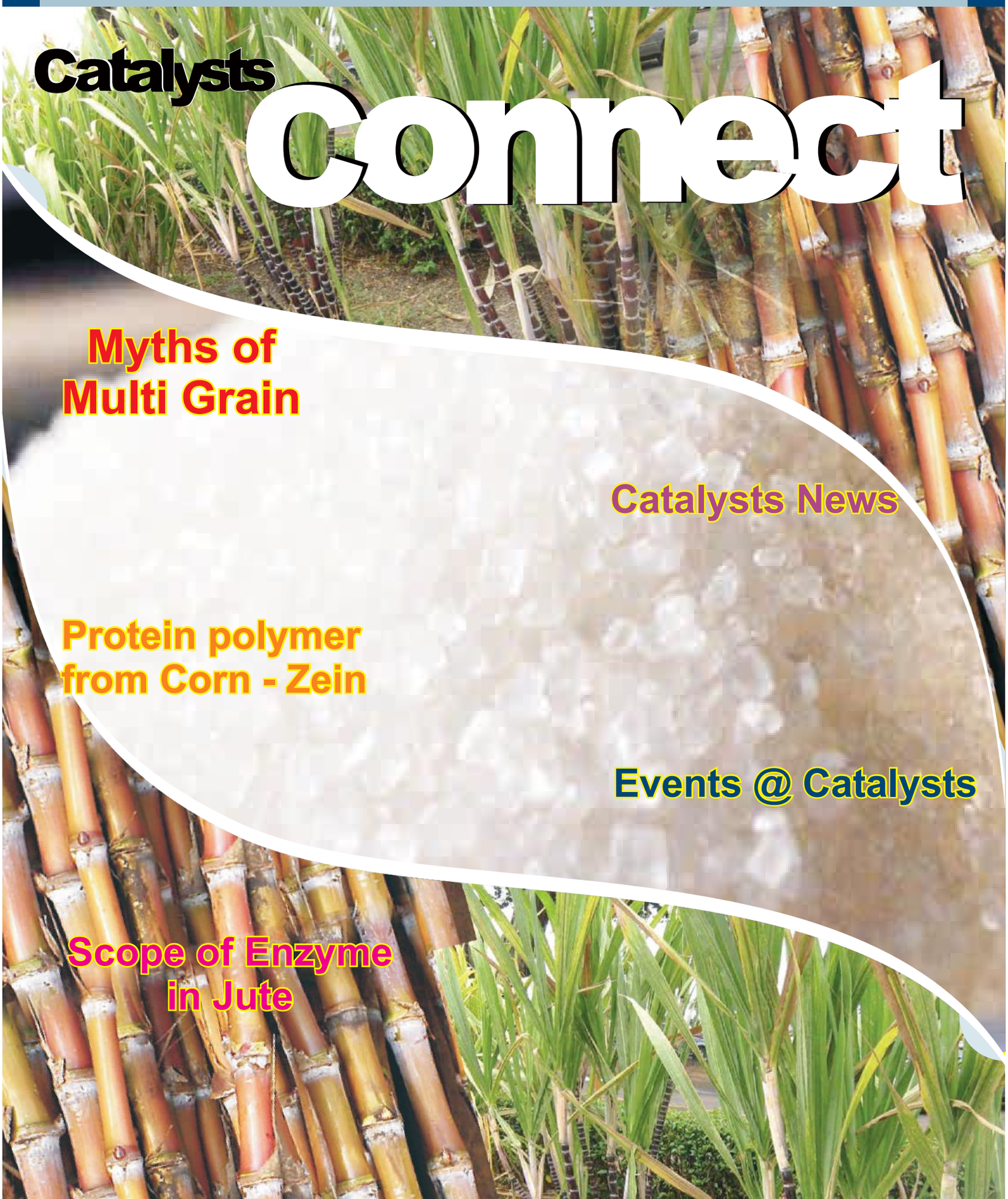

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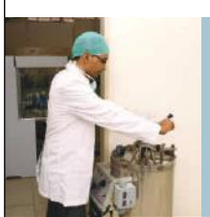

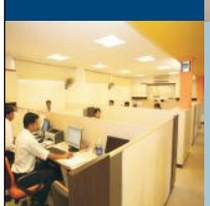

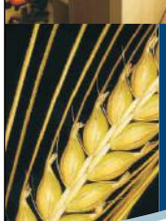

The Catalysts Group, delivers natural products & innovative biotech solutions encompassing enzymes, bio-products & additives for a wide range of industrial applications.

We have a highly qualified & experienced team looking after the needs of our current client base across industries & continue to create new & sustainable bio-based solutions.

We provide high degree of customer process oriented services in an efficient & professional manner.

Salient Features :

- **Customized Solutions**
- **9 Years of Excellence**
- **Trademark Products**
- **Certified Manufacturing Unit**

  (Food Safety System Certification 22000, Halal Certification, Food Safety & Standards Authority of India Certification)
- **Well Equipped & State-of-art Labs**
- **Qualified Customer Support Team**

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MESSAGE FROM THE MD

Dear All,

I am happy to have the opportunity to present our company and to welcome you all at our third volume of Magazine "Catalysts Connect".

Third quarter has been proved growth oriented & bought lots of positive change in the company like Face book presence, FSSC 22000 certification, new office at Hyderabad & remarkable performance at STAI's 71st Annual Convention & Sugar Expo. We are now more oriented towards the employee & customer friendly strategies as both are the inseparable part of any growing company.

Catalysts Group is consistently working towards its vision of "providing enzyme solutions by finding better methods of applications and work actively to achieve our common goals". All efforts in Catalysts Group is directed towards supporting our vision & mission and decisions are guided by their contribution they are likely to make towards enhancing and strengthening our vision and mission.

We have surpassed significant milestones in short period of time in the areas of bio-technology development, research, regulatory approvals, manufacturing & supply chain excellence and organizational culture as a whole.

Catalysts
making things happen...

We attribute our success to continued patronage of our valued customers and partners, who stood by us over the years and who has put in their trust in us. On the other hand, our internal driving force of dedicated & specialized team members including our regulatory and professional, who are working above and beyond the call of duty to drive Catalysts Group to next level, are certainly on an equal plane.

We are sure our unique business model, work practices, and culture of quality & excellence in everything we do will lead our relationships with business associate to a newer height, and ultimately will pave our way to a new growth trajectory and horizon of success. Catalysts Group consistent strategic direction is poised to project a recognizable organization across the world in the near future.

I would like to acknowledge the support and confidence extended by our customers & employees towards our endeavor. We hope to fulfill your expectations and continue to build a strong pathway for the future.

Warm Regards

Munish Madaan

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MYTHS OF MULTI GRAIN

If you thought brown bread was healthy, read the packaging

Source: The Crest Mumbai

Wholewheat, brown, multigrain, wholegrain — bakeries and manufacturers can slap any label on bread, but it doesn't guarantee that the bread in the package is much healthier than white bread. "Commercial brown bread is called that, because the colour is brown," says Manjit Singh, chef and owner of Bangalore restaurant Herbs and Spice. "But it is often made with refined wheat flour, and the colour comes from caramel." There are no regulations in India that specify how much wholewheat a loaf must contain before a manufacturer can label it thus. And multigrain only means that the bread contains more than one grain. If a loaf made with bleached, refined flour has a few ragi and flax seeds patted onto the surface just before it's put into the oven, it could still legally be called 'multigrain'.

How much whole grain does bread really have?

A wheat kernel consists of three parts: the outer layer of bran which contains B vitamins and fibre, the layer of living germ which is rich in protein, Omega-3s and antioxidants, and the inner endosperm which is mostly starch and gluten. To make white wheat flour or refined flour, the bran and the endosperm are removed, thus ridding the grain of all its nutrients. Wholewheat bread should contain a significant amount of flour made with the wholegrain to have any benefit.

"Bread which has only 20 per cent wholewheat is not making a difference toward improving your health," says *Nira Singh, owner of Delhi brasserie Chez Nini.* Manufacturers are required to list ingredients in order of decreasing amounts, so labels are good guides to what and how much of it goes into our packaged foods. "Big food businesses have their constraints," says *Farhad Bomanjee, owner of Kala Ghoda Café in Mumbai.*

Touch, look and taste - If the label doesn't reveal much, and you are not sure if your bread is wholewheat, eyeball it and prod at it. "With wholewheat you don't get a lot of leavening and it has a grainy texture, and it doesn't expand as much as maida," says *Alex Sanchez, Executive Chef of The Table in Mumbai.* Wholewheat bread looks less even than bread made with refined flour, it is denser, chewier and doesn't bounce back as easily when squeezed. Also, wholewheat spoils easily, because the oils in wheatgerm go rancid pretty fast. *John Paul Carmona, former chef de cuisine of Manresa* in California, who is visiting India, says that breads made from wholegrain rarely last more than a couple of days. "The more unrefined flour you use, the less moisture it holds," he says. "The only way to keep wholegrain bread longer is by slicing it, freezing it in portions, and then toasting it when you want to eat some."

Brown' bread, preservatives and other hidden ingredients - When wholewheat bread stays longer than a few days at room temperature or in the fridge, it's possible that it has been loaded with preservatives to increase its shelf life and emulsifiers to improve its texture. "If you eat bread with enzymes, bread improvers, and chemicals, you are putting garbage in your system," says *Nira Singh*. Enriched flour, unbleached flour, wheat flour are simply flour that has been stripped of its nutrients and then loaded with artificial vitamins and minerals.

The meaning of multigrain - If wholewheat flour sounds confusing, multigrain leaves room for a whole lot more interpretation."Multigrain merely refers to a food that contains more than one type of grain," says *Alain Coumont, founder of Belgian cafe chain Le Pain Quotidien.* "Common grains included in multigrain foods include rye, oats, buckwheat, cracked wheat, quinoa, barley, spelt, faro, millet and more.

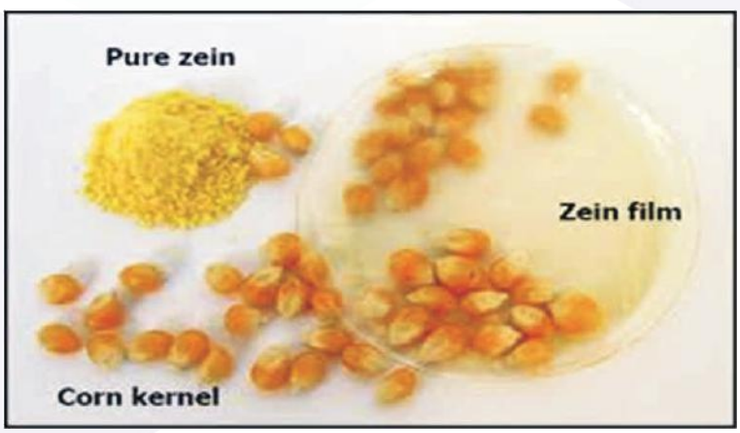
While some multigrain food may include whole grain ingredients, the term multigrain does not necessarily ensure that the food contains whole grain ingredients. "There aren't any set standards that are prevalent in the industry," says *Jaydeep Mukherjee, chef at Indigo Deli in Mumbai.*

PROTEIN POLYMER FROM CORN - ZEIN

Maize or corn is a major cereal grain across the world and has become the most utilized cereal for human consumption. The main component of the kernel is the endosperm, which is >85% starch.

The starch can be extracted in relatively pure form for various food and industrial uses. Starch has mostly been used in the food sweetener market.

Oils extracted from the germ can be utilized as cooking oils or in other food products. 7 - 9%Proteins are located mainly in endosperm and germ. Different types of proteins are found in the two main constituents: albumins and globulins, which are centralized primarily in the germ, while prolamin-type proteins are found mostly in the endosperm.



Prolamin proteins provide nitrogen for the growing corn kernel during germination. Zein, the main prolamin in corn, was first discovered by Gorham in 1821 inzea, otherwise known as "Indian corn".

Production of zein was commercialized in 1939 as many potential uses for zein were identified. Because of zein's insolubility in water, resistance to grease and glossy appearance, it was ideal for adhesives, plastics, and fiber applications.

Two companies producing it: Freeman Industries (Tuckahoe, NY) now owned by Flo Chemical Corp. (Ashburnham, MA) and Showa Sangyo (Tokyo, Japan). Recently POET Inc. (Sioux Falls, SD) and Prairie Gold Inc. (Bloomington, IL) have introduced zein prepared by using different processes.

The POET product called Inviz™ is extracted from POET's Dakota Gold® distillers' grains, and COPE-zein from Prairie Gold Inc. is extracted from ground corn prior to the dry-grind ethanol process. Zein is a protein that is only found in corn; however, there are proteins which share similar prolamin characteristics to that of the zein found in corn,but zein is favored because of higher yields and the large volume of corn co-products available for extraction.

Corn wet milling produces a protein-rich co-product (CGM) from which zein has been extracted commercially. Dry-milled corn (DMC) separates oil and fiber-rich materials from grits. The dry-grind ethanol processing is grinding corn, subsequent saccharification, and fermentation of glucose to ethanol, leaving behind the co-product DDGS. Because of the conversion of starch to sugars and subsequently to ethanol, components, such as cellulosic materials and protein, become concentrated in DDGS.

Zein has found uses in many products such as coatings, plastics, textiles, and adhesives. Newer applications are taking advantage of zein's biological properties for supporting growing cells, delivering drugs, producing degradable sutures, and producing biodegradable plastics.

Zein has normally sold for $10-40/kg with higher purities commanding higher prices. Until new extraction methods, which can prove themselves to be economically viable, zein will not likely be able to compete with synthetic plastics, which have a market price of approximately $2/kg.

— Milind Kulkarni
VP (Technical)

SCOPE OF ENZYME IN JUTE INDUSTRIES

Golden fibre, Jute, is the most important cash crop of great socio-economic importance in South Asian countries specially India, Bangladesh, Pakistan and Nepal. Jute is characterized specially with its silky lusture, high tensile strength, low extensibility, considerable resistance to fire and heat, good insulation to sound and heat etc

Jute being ligno-cellulosic, coarse bast fibres are traditionally processed by petroleum based fibre lubricant, known as Jute Batching oil (JBO) for the last couple of decades to improve their amenability in subsequent processing through machineries.

However, presence of some undesired toxic chemical constituents in JBO (e.g. Poly nuclear aromatic hydrocarbons such as pyrenes, benzpyrenes, benzanthracene etc. reported to be carcinogenic in nature) and its typical odour have posed some problems in terms of its wide acceptability in food contact application.

Although the threat perception of jute consuming countries with respect to JBO processed jute bags were not well founded in terms of human health aspects, nevertheless, market has demanded replacement of JBO. Considering the limitations of JBO, demand has been generated to replace Jute Batching Oil in jute processing by a suitable Eco-fibre lubricant.

To find out a suitable alternative of JBO various fibre lubricant formulations using Castor oil, Turkey Red Oil, Palm Oil, Polymers, rice bran oil (RBO) etc. Application of Rice Bran Oil based eco- fibre lubricant is mostly restricted to the production of specific exportable premium Jute items known as Food Grade Jute Products (FGJP) to pack cocoa, coffee and shelled nuts etc.

Due to shortage , price hike & rancidity problem Eco-fibre lubricant like vegetable oils or Rice bran oil are not viable for jute industry.

Its all unfavorable conduction given opportunities to use eco friendly , naturally occurring , protein molecules ENZYME.

Major advantages of enzyme applications are :

- It is eco-friendly & safe
- Works under mild conditions
- Very specific, efficient and effective in small quantities
- Amazing catalytic power, does not alter at the end of the reaction known as Bio-Catalyst
- Save precious energy

The fungus *Aspergillus terreus* has been selected by IJIRA (Indian Jute Industries' Research Association) for its stable biochemical nature. Aqueous extract of dried and fresh culture is used as the source of crude enzymes for the softening and cleaning of root cuttings and low grade jute fibres in mills.

Enzyme mixture present in the aqueous extract is compatible with oil-in-water emulsion and the activity profile present in the aqueous extract of the dry mouldy bran culture of *A. terreus*

Enzyme profile of 10% aqueous extract of *Aspergillus terreus*

Sr. No.	Enzyme Components	Activity per ml of extract
1.	Endo . β(1-4) Glucanase	80 -100 Units
2.	Exo . β(1-4) Glucanase	30 Units
3.	β - Glucosidase	90-95 Units
4.	Jute Hemicellulase	50-80 Units
5.	Pectinase	4-5 Units

Multiple facets of enzyme application in jute processing

★ **Softening & cleaning of barky root end of Jute**

Application of enzymes called hydrolases in presence of moisture enhances catalytic degradation of specific carbohydrates such as cellulose, hemicellulose and pectins present in hard barky root ends.

The synergistic effect of the two biological systems, enzymes and bacteria, brings about the ideal softening of barky tissue in a minimum period of piling. Enzyme application during jute piling causes accelerated maturation of pile Known as 'accelerated softening'.

★ **Enzyme in jute sizing (enzymatic modification of tkp size paste)**

Jute yarns are conventionally sized with a thick cooked paste of tamarind kernel powder, however, it is observed that enzymatic modification of TKP size paste not only reduces the cost of cooking of size but also helps in rapid drying of sized yarns.

Enzyme modification of size paste has been observed to reduce the viscosity of the size paste and improves yarn sizing and its overall quality. Enzyme application in jute yarn sizing has been observed to improve the weaving efficiency by 2-3% and hence considered as an eco-process technology related to the reduction of cost of jute processing

★ **Enzyme as bleaching aid of jute**

The art of bleaching jute has received fresh attention in diversified jute products. Among various methods suggested, bleaching of jute with peroxide has proven attractive since fibers retain adequate strength with reduced health hazards and pollution.

IJIRA developed a mixed enzyme based pretreatment procedure for enhancing the brightness of peroxide bleached jute. It has been observed that brightness index of bleached jute material is increased by 3% when pretreated with an enzyme mixture containing cellulase and xylanase.

Enzyme pretreatment being an eco-friendly approach in jute bleaching thus can reduce the consumption of harsh bleaching chemicals in order to attain equivalent brightness.

★ **Enzymes as dehairing agent of jute**

Small fibre ends, called 'fuzz', projected from the surface of yarn give an unpleasant feel to all cellulosic fabrics.

This problem has intensified with jute because of its inherent coarseness and rigidity of jute fuzz cause a pricking sensation.

Upgradation of jute fabric means reduction of Fuzz, thus imparting smoothness as well as making the product soft. IJIRA has developed a Bio-polishing technique by using specific enzymes and improved the handle and appearance of Jute–Cotton union fabric

★ **Optimum moisture retention in jute processing**

Role of moisture in Jute processing is very critical as almost all the physico-chemical properties of jute fibres are affected by its moisture content and these improved fiber properties plays a significant role in the conversion of fibers into yarns and fabrics.

To resolve this critical issue, IJIRA suggested a bio-chemical route based on specific organic polymers which are compatible to Oil-in-water emulsion. Judicious application of such organic humectants (e.g glycol derivatives) along with JBO or RBO etc.

—— **Mithlesh Kr. Chaubey**
Jr. Manager (BD)

ENZYMES – At a glance……

What are enzymes and what do they do?

Enzymes are proteins with highly specialized catalytic functions, produced by all living organisms. Enzymes are responsible for many essential biochemical reactions in microorganisms, plants, animals, and human beings. Enzymes are essential for all metabolic processes, but are not alive. Although like all other proteins, enzymes are composed of amino acids, they differ in function in that they have the unique ability to facilitate biochemical reactions without undergoing change themselves. This catalytic capability is what makes enzymes unique.

Enzymes are natural protein molecules that act as highly efficient catalysts in biochemical reactions, that is, they help a chemical reaction take place quickly and efficiently. Enzymes not only work efficiently and rapidly, they are also biodegradable. Enzymes are highly efficient in increasing the reaction rate of biochemical processes that otherwise proceed very slowly, or in some cases, not at all.

What types of enzymes are there?

Enzymes are categorized according to the compounds they act upon. Some of the most common include; proteases which break down proteins, cellulases which break down cellulose, lipases which split fats (lipids) into glycerol and fatty acids, and amylases which break down starch into simple sugars.

How are enzymes used?

Enzymes play a diversified role in many aspects of everyday life including aiding in digestion, the production of food and several industrial applications. Enzymes are nature's catalysts. Humankind has used them for thousands of years to carry out important chemical reactions for making products such as cheese, beer, and wine. Bread and yogurt also owe their flavour and texture to a range of enzyme producing organisms that were domesticated many years ago. Alcoholic beverages and several drinks like juices etc are also consume lot of enzymes in their processing.

What is the past of enzyme?

The three most important persons, who were the backbone of enzyme history named:

1. Eduard Buchner
2. James Sumner
3. J.B.S. Haldane

Buchner discovered in 1897 that yeast extracts could ferment sugar to alcohol: $C6H12O6 \rightarrow 2C2H5OH + 2CO2 + 2\ ATP$

Buchner's finding showed that fermentation was promoted by molecules that continued to function when removed from cells.

In 1926, Sumner isolated and crystallized jack bean urease, which catalyzes the reaction: $CH4N2O + H2O \rightarrow 2NH3 + Co2$. The urease crystals contained only protein, leading Sumner to propose that all enzymes are proteins. He received a Nobel Prize in 1946 for this discovery.

In the 1930s, Haldane postulated that weak bonding interactions between an enzyme and its substrate might be used to catalyze a reaction. This key insight lies at the heart of our current understanding of enzyme catalysis.

What is the history of industrial enzymes?

The history of industrial enzymes dates back to 1874 when Hansen manufactured chymosin from the stomach of calves for manufacture of cheese. Jokichi Takamine was the first person to manufacture an enzyme from a microbial source when he manufactured taka-diastase from Aspergillus as a digestive enzyme in 1894.

What is the source of industrial enzymes?

The source of industrial enzymes is plant or animal tissues and microbes. In these days, however, the manufacture of enzymes by fermentation using microbes is mainly employed for the reason of efficiency and economy. Microbes employed for the manufacture of enzymes are highly safe microorganisms that have been used for a long time in the manufacture of fermented foods such as beer, cheese, soy sauce, and yogurt. These microbes are bred by the use of traditional techniques or genetic recombination techniques.

How are industrial enzymes used?

The field of use for industrial enzymes has now extended to almost all industries handling organic compounds. Enzymes are used variably, for example, as ingredients of detergents, reagents for analysis of drugs or blood components, food use or food additives, fiber processing use or pulp processing in the paper industry, and environmental purification use. The method of enzyme use also varies, for example, as an enzyme preparation, on the surface of an insoluble carrier in a bioreactor, or a biosensor with the enzyme integrated into an electrode.

The industrial enzyme market (except for medicines) is about thousands of billion dollars and is composed largely of enzymes used as detergent ingredients and enzymes for food processing applications.

What is the present scenario of enzyme?

Enzyme technology is presently going through a phase of maturation and evolution. The maturation is shown by the development of the theory concerning how enzymes function and how this is related to their primary structure through the formation and configuration of their three-dimension structure. The evolution is shown by the ever-broadening range of enzymatic applications.

A goal of technology in the 21st century is to become more environmentally friendly. For this reason, industrial technology based on a viewpoint of green chemistry is indispensable, and this is why the 21st century is said to be the century of biotechnology. Expectations of biotechnology to solve various difficult problems such as destruction of the global environment, the serious food shortage, and the energy problem are quite high from the standpoint of safety, economy, and the environment.

What is the relation of enzymes and biotechnology?

Biotechnology and enzymes are inseparable. Enzyme based bio-catalytic reactions are a key technology from the viewpoint of green chemistry, and the expectations for the use of enzymes is wide-ranging over various fields including purifying the environment, reusing resources, creating new industrial processes, creating new functional foods, and contributing to medical treatments.

What is the future of enzyme?

The future of enzymes is bright judging from the viewpoint of expectations. The life sciences are rapidly progressing and will soon develop more powerful super-enzymes and allow the utilization of enzymes in harmony with other technologies. This will be possible with the search for new enzymes or highly functional enzyme proteins through analysis of structures and elucidation of mechanisms on a genetic level by the use of IT technology. All of these developments will contribute to an improvement of life for humankind.

There still remains much room for the development of useful processes a materials based on this hard-won understanding. Enzymes will clearly be more widely used in the future and this will be reflected in the number enzymes available on an industrial (and research) scale, the variety of reactions catalysed and the range of environmental conditions under which they will operate. Established enzymes will be put to new uses and novel enzymes, discovered within their biological niches or produced by design using enzyme engineering, will be used to catalyse hitherto unexploited reactions. This is just the start of the enzyme technology era.

—— **Dharmendra Pathak**
Jr. Manager (R & D)

Source: The Mayo Clinic

ANGER MANAGEMENT: 10 TIPS TO TAME YOUR TEMPER

Use simple anger management tips — from taking a timeout to using "I" statements — to stay in control.

Do you find yourself fuming when someone cuts you off in traffic? Does your blood pressure go through the roof when your child refuses to cooperate? Anger is a normal and even healthy emotion — but it's important to deal with it in a positive way. Uncontrolled anger can take a toll on both your health and your relationships.

Ready to get your anger under control? Start by considering these 10 anger management tips.

No. 1: Take a timeout

Counting to 10 isn't just for kids. Before reacting to a tense situation, take a few moments to breathe deeply and count to 10. Slowing down can help defuse your temper. If necessary, take a break from the person or situation until your frustration subsides a bit.

No. 2: Once you're calm, express your anger

As soon as you're thinking clearly, express your frustration in an assertive but non confrontational way. State your concerns and needs clearly and directly, without hurting others or trying to control them.

No. 3: Get some exercise

Physical activity can provide an outlet for your emotions, especially if you're about to erupt. If you feel your anger escalating, go for a brisk walk or run, or spend some time doing other favorite physical activities. Physical activity stimulates various brain chemicals that can leave you feeling happier and more relaxed than you were before you worked out.

No. 4: Think before you speak

In the heat of the moment, it's easy to say something you'll later regret. Take a few moments to collect your thoughts before saying anything — and allow others involved in the situation to do the same.

No. 5: Identify possible solutions

Instead of focusing on what made you mad, work on resolving the issue at hand. Does your child's messy room drive you crazy? Close the door. Is your partner late for dinner every night? Schedule meals later in the evening — or agree to eat on your own a few times a week. Remind yourself that anger won't fix anything, and might only make it worse. **Eating out is a strict NO!:** Eating out, especially street food

No. 6: Stick with 'I' statements

To avoid criticizing or placing blame — which might only increase tension — use "I" statements to describe the problem. Be respectful and specific. For example, say, "I'm upset that you left the table without offering to help with the dishes," instead of, "You never do any housework."

No. 7: Don't hold a grudge

Forgiveness is a powerful tool. If you allow anger and other negative feelings to crowd out positive feelings, you might find yourself swallowed up by your own bitterness or sense of injustice. But if you can forgive someone who angered you, you might both learn from the situation. It's unrealistic to expect everyone to behave exactly as you want at all times.

No. 8: Use humor to release tension

Lightening up can help diffuse tension. Don't use sarcasm, though — it can hurt feelings and make things worse.

No. 9: Practice relaxation skills

When your temper flares, put relaxation skills to work. Practice deep-breathing exercises, imagine a relaxing scene, or repeat a calming word or phrase, such as, "Take it easy." You might also listen to music, write in a journal or do a few yoga poses — whatever it takes to encourage relaxation.

No. 10: Know when to seek help

Learning to control anger is a challenge for everyone at times. Consider seeking help for anger issues if your anger seems out of control, causes you to do things you regret or hurts those around you. You might explore local anger management classes or anger management counseling.

BUSY WOOD CUTTER

Once upon a time a very strong woodcutter asked a job in a timber merchant, and he got it. His salary was really good and so were the working condition. For that reason, the woodcutter determined to do his best.

His boss gave him an axe and showed him the area where he supposes to fell the trees. The first day he bought 15 trees. "Congratulation!" The boss said." Carry on with your work!"

Highly motivated by the words of his boss, the woodcutter tried harder the next day, but he only could bring 10 trees. The third day he tried day he tried even harder. But he was only able to bring 7 trees day after day he was bringing less and lees trees." I must losing my strength "the woodcutter thought.

He went to boss and apologized, saying that he could not understand what is going on.

"When was last time you sharpened your axe? The boss asked". The woodcutter stated,

"Sharpen? I had no time for sharpening the axe and have been very busy trying to cut trees"

Most of us never update our skills. We think that whatever we have learned is very much enough. But good is not good enough when better is expected. Sharpening our skills from time to time is the key to success.

A foreman delivers a load of planks to the woodcutter, and instructed him to saw them. The woodcutter picks up his saw, heads over to the grindstone, and proceeds to start sharpening it.

Lunch hour comes; the woodcutter doesn't join the crew for lunch. Foreman figures he's putting' in extra hours.

5 PM comes around; foreman goes to check on the woodcutter. The pile of planks is still there, uncut. He is still at the grindstone, sharpening his saw, which by now has been whittled away to a nub.

"What are you doing?"

"Sharpening my saw, Boss, I figger that if I sharpen it for another half an hour, it'll be so good and sharp that I can cut through those planks like butter, an' get the whole pile o' wood done in the last half hour 'fore quitting' time."

The foreman replies – "Quitting time IS in the next half hour"

Although there are some of us who spend too much time preparing, planning and strategizing that no real work of any value is accomplished, ever.

—— **Sanjay Poddar**
Manager (Finance & Accounts)

SUN RISE

Source: Wisdom Pearls

Every Morning in Africa, when the sun rises, a Deer awakens, knowing it has to outrun the fastest Lion, or, be hunted to Death…..

Every Morning in Africa, when the sun rises, a Lion awakens, knowing it has to outrun the slowest Deer, or, be starved to Death…..

It does not matter whether you are a Deer or Lion, when the sun rises, better be running at your best!!!

—— **Sugandha Sharma**
Jr. Manager (HR)

HAPPY BIRTHDAY

Catalysts Group wishing you all the best today & throughout the coming year !

Name	Designation	Date of Birth
Kamal Kamboj	Sr. Executive (Accounts)	02 July
Rana Pratap Singh	Executive (BD)	08 July
Isha Goel	Dy. Mgr (Materials & Coordination)	13 July
Lalit Chandra	Jr. Manager (BD)	24 July
Manav Prakash Sharma	Sr. Executive (R&D)	10 Aug.
Gaurav Verma	Jr. Manager (Logistics)	15 Aug.
Priyanka Bansal	Executive (R & D)	27 Aug.
Anil Kumar	Executive (Stores)	30 Aug.
Abhishek Bhateja	Executive (Logistics)	30 Aug.
Mahendra Kr. Verma	Dy. Manager (BD)	15 Sept.
Santosh Kanaki	Asst. Manager (BD)	15 Sept.
Arindam Mondal	Dy. Manager (BD)	16 Sept.
Milind Kulkarni	VP (Technical)	22 Sept.
Sugandha Sharma	Jr. Manager (HR)	27 Sept.

HAPPY ANNIVERSARY

Catalysts Group is delighted to Congratulates & wishes you all a happy Anniversary & a perfect day.

Name	Designation	Date of Marriage
Push Kumar	Sr. Executive -Logistics	14 July
Isha Goel	Dy. Manager - Materials & Coordination	16 July

WELCOME TO THE CATALYSTS GROUP

Name	Designation	Date of Joining
Isha Goel	Dy. Mgr - Materials & Coordination	06 April
Satabdi Roy Choudhry	Executive – Front Office	13 Sept.

CATALYSTS NEWS

- Catalysts Group is now in Facebook also Join us : **www.facebook.com/thecatalystsgroup**

  Like the page to stay connected with Catalysts.

- Catalysts Group has achieved a benchmark in the field of Food Safety Management System by getting **FSSC 22000 certification**.

  It is a great value addition to Catalysts Group towards food safety in PAN India as well as globally.

- The winner of Raksha Bandhan quiz is Mr. Rishabh Khanna & the winner of Independence Day quiz is Mr. Sanjeev Raghuwanshi. Congratulations to both of you !!!

- Congratulations to Mr. Milind Kulkarni for winning the Saturday Debate Day on 18th August on the topic of **"Impact of Delay in Monsoon in Alcohol & Sugar Industry"**.

- Catalysts group has opened his new office at Hyderabad - **Shop No. 258, Survey No – 127/1, Sri krupa market, Mahboob mansion, Malakpet, Hyderabad – 500036, A.P.**

- Catalysts had a very successful experience at **SUGAR EXPO** organized by STAI in hyderabad, 2012.

  We enjoyed the inspiring conversations, and are impressed by the great number of visitors to our stall and their interest shown in our products.

  Our research paper on **"Application of Enzyme in Sugar"** presented by our sugar technocrat Mr. Bharat Chaudhry also created buzz in the market which exceeded all our expectations.

  Catalysts Group thanked to all for showing interest in our innovative products & service.

—— **News Desk**
Catalysts Group

Congratulations

To Mr. Kunal Jhelum (Groom) & Ms. Shikha (Bride) for tying knot on 24 September 2012.

May the two of you find everlasting love between you that will strengthen with each passing year.

Have a happy married life.

Laughter Therapy

1. From a woman's point of view

- The most perfect man in the world is her father. :)

- The most abused husband in the world is her brother. :p

- The most handsome man in the world is her son. ;)

- The luckiest and happiest man in the world is her sister's husband. :D

- The most thankful man in the world is her son in law.

- And the worst, most selfish, heartless, total jerk and the man with worst behavior in in the world in her husband.

2. An interview with God..

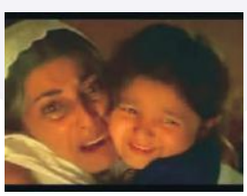
Man: What surprises you most about human kind?

God: That they get bored with childhood, they rush to grow up, and then long to be children again. That they lose their health to make money, and then lose their money to restore their health. That by thinking anxiously about the future, they forget the present, such that they live in neither the present, nor the future.

They live as if they will never die and die as though they had never lived.

Guess the Picture ?????

"She makes her Bollywood debut in a Karan Johar movie "



Start guessing the kid..... To win, email your entries - magazine@thecatalystsgroup.com

Vol 2 winner is **Mr. R.C. Agarwal , Dwarikesh Sugars (Afzalgarh)** and the correct answer is **Mr. Vijay Mallaya.** Congratulations !!! soon you'll receive your goody bag.

Find the Fault

Can you find the fault in the picture ? send your views/entries at magazine@thecatalystsgroup.com to win a surprize gift.

Vol 2 winner is **Mr. Dinesh Sharma (Manager)** & the correct answer is **2 engines in one train.**

Congratulations !!! soon you'll receive your surprise gift.

I Luv u my Dad

But you are much more than that

wonderful friend you are

my superstar....

I don't tell you

to me how important you are

but in my universe

you are a bright shining star....

on your birthday

I would like you to know

you are a perfect dad blend

& my love for you would never end...

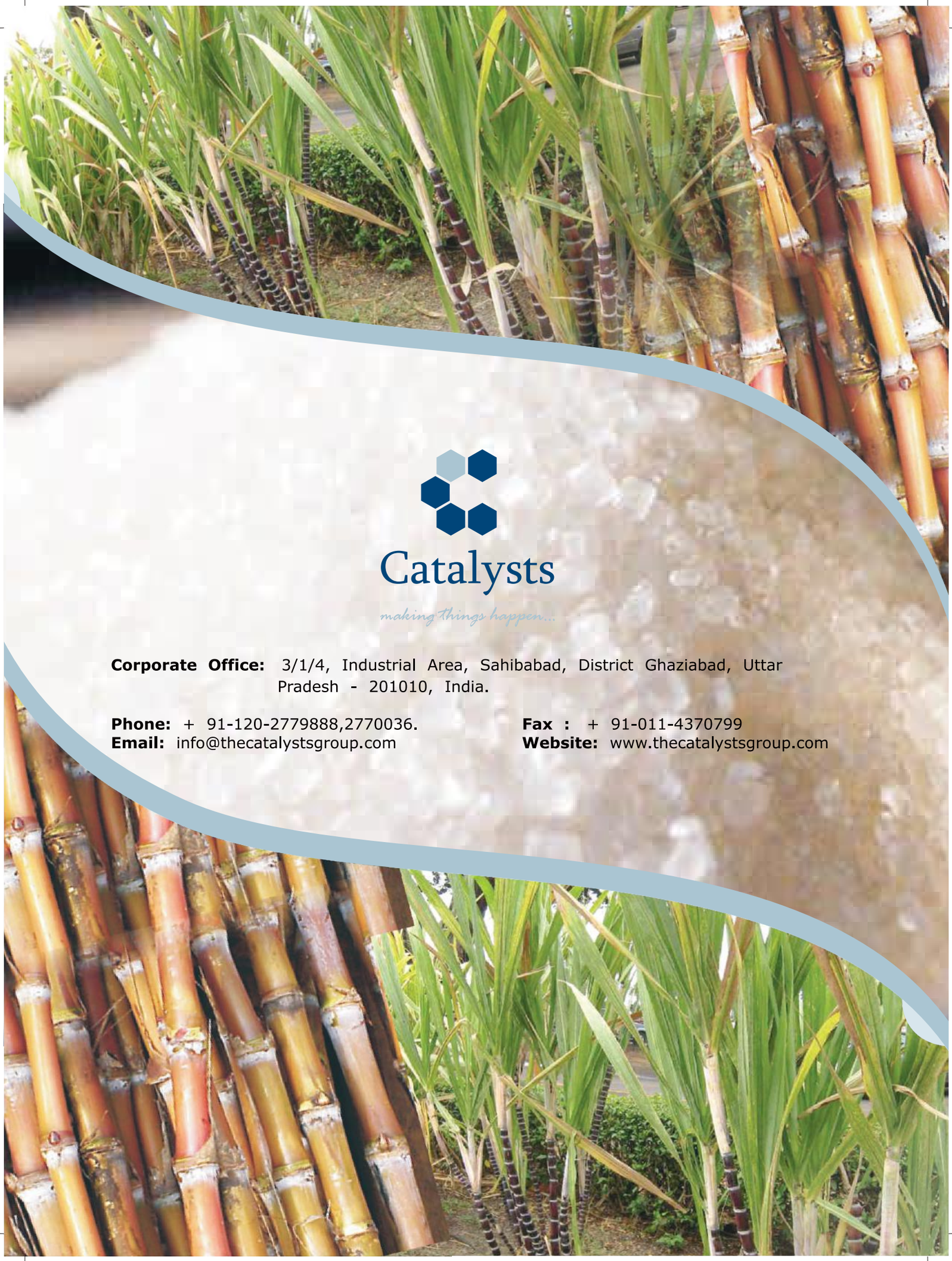
—— **Mitali Kulkarni**

(Daughter of Mr. Milind Kulkarni)

EVENTS @ CATALYSTS

71st Annual Convention & Sugar Expo 2012

Kids Painting Competititon



Catalysts

making things happen...

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