

AGRI-BUZZ

Improving Agriculture, Improving Lives



FROM THE DIRECTOR



Prof.(Dr.) Atmanand
Director-MDI Murshidabad

It gives me immense pleasure to welcome you all to MDI Murshidabad (MDIM). With an intention to impart quality management education, nurture talent, and groom them to become visionary leaders and game changers, the MDI Society had established its second campus at Murshidabad in West Bengal in 2014. After the laying of the foundation stone in October 2010, the building and infrastructure were launched by the then President of India, Shri Pranab Mukherjee in August 2014, with the simultaneous commencement of its flagship academic program, the Post Graduate Diploma in Management (PGDM), which is recognized by the All India Council for Technical Education (AICTE), New Delhi.

Since inception, MDI Murshidabad has been committed to achieving academic excellence and turning out quality managers and global leaders. Spread over 10 acres, the campus takes pride not only in terms of its state-of-the-art infrastructure and expert faculty, but also in terms of covering several milestones in cognate domains, including organizing MDPs, industrial visits, business symposia, corporate events, etc. in which our students and faculty members have played pivotal roles.

It has always been the endeavor of the Institute to strengthen the core faculty. Presently, we have a good mix of young, dynamic and experienced faculty members, who double up as institution builders and student mentors. While faculty from MDI Gurgaon (MDIG) regularly take classes at Murshidabad, our students also get the opportunity to interact with specialized faculty from other top institutions in the region like, IIM Calcutta, ISI Calcutta, Jadavpur University, Calcutta University, IIFT, etc. Distinguished personalities across India in the field of academics, industry, business, government, culture and international relations, pay frequent visits to MDIM to address and interact with the students.

We are highly focused to create an ethical and knowledge centric culture that values outstanding academic excellence, training, research and consultancy. We follow three pronged approach- connect, nurture and grow, with open doors at all levels.

MDIM vision is to be internationally excellent business school known for our academic ambition and influence in building a responsible future for both business and society globally.

About Our Mentors



Dr. Sunil Giri

Chairperson - PGDM and Associate Professor, Operations Management

Dr. Sunil Giri did B. Tech (Electrical Engineering) MBA and PhD in Supply Chain Management. He is associated with various Universities in various capacities. He is having 14 years of rich experience in management teaching, training & consulting and research. His research interest is Sustainable Supply Chain, QR Logistics, Humanitarian Logistics, Supply Chain visibility, etc. He offers Courses and sessions on the topic like operations Management, Supply chain Management, Global Logistics, Supplier Relationship management, Supply chain modeling Benchmarking both for academic and training mode.



Dr. Biranchi Narayan Swar

Dean-Continuing Education, Chairperson-Marketing Area and Professor-Marketing

Dr. Biranchi Narayan Swar is M.A. (Economics), MBA (Marketing) and Ph.D (Marketing of Services). He was ranked 3rd in order of merit in B.A (Economics) and M.A. (Economics) in the University Examination Dr. Swar has been awarded the National Scholarship from Ministry of HRD, Government of India. He is an alumnus of IIM, Indore and has more than 18 years of rich teaching, research and industry experience in reputed organizations. His areas of expertise in teaching are Marketing of Services, Sales and Distribution Management, Customer Relationship Management, Product and Brand Management, and Marketing Analytics and Intelligence etc.



Dr. Ravi Shankar Bhakat

Assistant Professor, Marketing

Dr. Ravi Shankar Bhakat has 11+ years of experience as researcher, practitioner and trainer. His major academic credentials include MBA, PhD and UGC NET. He has been primarily associated in the areas of marketing and general management. The research works undertaken by Dr. Ravi is related to contemporary consumer behavior in the modern marketing environment. Pertinent works of modern marketing and business practices have been presented and showcased in International Conferences at ICSSR , IIM-B, IIM-L, IIT-BHU and other renowned institutions. Dr. Ravi has published papers in indexed International and National Journals of repute with high citations.



About Us

VISION

Making Agribusiness sustainable by breakthrough contribution with motive of economic development of the country where as no agro produce is wasted and no one starves of food.

OBJECTIVES OF THE CENTRE

- To conduct action oriented research in agribusiness area.
- Focus on preparing plans and policies to help the government.
- Dissemination of business knowledge to agricultural sector.
- To impart education and training to individuals for developing managerial skills in the area of agri-business.
- To offer training courses for policy makers, executives and those in charge of various agribusiness plans.
- To run agribusiness incubation center.

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Demand vs fear of restriction in export! Who is a step ahead to be stronger for the Indian rice right now?

By- Shiva Sharma | Oct. 2022

Fertiliser production has been expected to grow by 3.4 per cent to a little over 45 million tonnes in 2022-23. Urea production, which accounts for more than 50 per cent of the total fertiliser consumption in India, has been expected to grow by 4 per cent to 26 million tonnes. The output of non-urea fertilisers, that consists NPK fertilisers, diammonium phosphate, and superphosphate among others, has been likely to grow by 2.6 per cent to 19 million tonnes during the year. An increase in demand backed by higher sowing will drive growth in production.

Fertiliser production rose by a 11.1 per cent during April-July 2022. A total of 15.4 million tonnes of fertilisers had been produced during the said period in comparison to 13.9 million tonnes produced during April-July 2021. While Urea production grew by 15.5 per cent to 9.1 million tonnes, that of non-urea fertilisers rose by 5.4 per cent to 6.3 million tonnes.

The fertiliser companies reported an unprecedented rise in production during the first 4 months of 2022-23 in anticipation of a rise in demand from the ongoing kharif season. Companies may have also ramped up production as the already high prices of inputs, especially natural gas, are likely to increase further going ahead. However, companies saw some pullback in demand during this said period because of weak kharif sowing. The area sown as of 9 September 2022 was 2 per cent lower compared to a year ago mainly because of a fall in paddy. Area sown under rice, which is the highest fertiliser consuming crop, declined by 5 per cent due to deficient rains in the key producing states. Rice consumes the bulk of fertilisers, around 35 per cent of the total consumption. Lower fertiliser demand is evident from the fertiliser sales volumes which declined by five per cent from April-July 2022.

We expect demand to pick up in the coming months with the onset of the rabi sowing. The country received 6.8 per cent surplus rainfall during 1 June - 15 September 2022. This resulted in higher reservoir levels. According to Central Water Commission, the current year's storage is 119 per cent of last year's storage and 118 per cent of the storage of average of the last ten years. Of the 143 reservoirs across the country, 130 have more than 80 per cent of normal storage. A rise in reservoir levels will lead to an improvement in soil moisture levels thereby setting a good base for rabi sowing. Production of major rabi crops is projected to grow in the rabi season 2022-23. The area under cultivation of wheat, the largest rabi crop, is expected to increase due to strong demand in the domestic as well as the global markets. The ongoing Russia-Ukraine war has led to a global shortage of wheat. India being the third largest producer of the crop can cash in on the rising demand globally by ramping up production. Wheat is the second largest fertilisers consuming crop. It consumes about a quarter of the total fertiliser consumption in India.



Success Story Of Amul: The Taste Of India

By- Zahid Maisoor | Oct. 2022

When we say Amul, the first thing that comes to our mind is Butter or Milk. Along with this, an animated baby girl cartoon has a bread-butter in her hand. But we all know what Amul is today in the field of dairy and food processing. Before looking at the growth of Amul let's first see how it has taken birth.

Anand Milk Union Limited (AMUL) is an Indian dairy cooperative society headquartered in Anand, Gujarat was established in the year 1946 to protect the farmers who are being exploited by the middleman and the British monopoly company Polson. A milk cooperative society is formed under the supervision of Dr. Verghese Kurien, who is popularly known as the father of the White Revolution in India. Every farmer is free to sell their milk to the cooperative society without being exploited. The strength of this society is their unity which ultimately breaks the monopoly of Polson company. Many a time Britishers step into the matter for the negotiation with the cooperative society but the society goes on becoming powerful and stronger day by day without negotiation. And hence the brand Amul came into the picture.



The Major success of Amul depends upon its core fundamental which is the unity between the farmers and their unselfish nature of work. Amul penetrated a diverse line of products targeting children too young age people. They use high-tech technology for their products which help them to minimize their cost. Where other dairy company makes around 30% expense on packaging Amul do this at 20% cost. As the old saying "change is the rule of the world" Amul follows this very efficiently and effectively as they kept on innovating themselves from time whether talking about technology or product diversification. We all see different types of Amul advertisements on different occasions. Yes, advertisement is another major key to their success. Where every company keeps on cutting their cost during the Covid-19 period Amul double their expenditure during the period. Their strong network and supply chain also help them perform exponentially well in the industry.

Today when the term Amul is pronounced the image of the country India reflects that. Amul is not only the brand in India but Amul is the winner in every category of the Indian dairy business; let it be in revenue generation, turnover, various product categories like ice cream, butter, and any other category, Amul beats the competition by a huge margin.

FUN FACT: - Amul is not owned by a single person but by 3.6 million milk producers of Gujarat.



Drones and the Indian agriculture industry

By- Rahul Kr. Chanda | Oct. 2022

According to current study, the global drone industry in agriculture would increase at a 35.9% CAGR and reach \$5.7 billion by 2025. Drone technology in agriculture is here to stay. This developing technology has the potential to save farmers time and boost their efficiency. Drone use in agriculture is likely to increase as the business evolves, so knowing how to use this technology wisely is essential

Advantages of Using Drones in Agriculture

Soil and field analysis: Drones can help with soil and field studies at the beginning of the agricultural cycle. They provide exact 3-D maps for early soil investigation, which is essential in planning seed planting patterns. Following planting, drone-driven soil analysis offers data for irrigation and nitrogen-level control. **Crop spraying:** Drones may scan the ground and spray the appropriate amount of liquid, regulating distance from the ground and spraying in real time for equal coverage. As a consequence, efficiency has risen while the amount of chemicals entering groundwater has decreased. Experts predict that aerial spraying with drones may be performed up to five times faster than with traditional technology.



Planting: Start-ups have developed drone-planting systems that achieve a 75 percent adoption rate while lowering planting expenses by 85 percent. These systems release pods containing seeds and plant nutrients into the soil, giving the plant with all of the nutrition it requires to survive.

Crop monitoring: The main challenge in farming is the combination of huge areas and low crop monitoring efficiency. Monitoring difficulties are increased by more unpredictable weather patterns, which increase risk and field maintenance costs.

Irrigation: Drones equipped with hyper-spectral, multispectral, or thermal sensors may detect whether areas of a field are dry or in need of renovation. Furthermore, after the crop is developing, drones can calculate the vegetation index, which represents the relative density and health of the crop, as well as reveal the heat signature, which is the amount of energy or heat emitted by the crop.

Health assessment: It is critical to check crop health and detect bacterial or fungal infestations on trees. Drone-borne equipment may distinguish which plants reflect various quantities of green light and near-infrared light by scanning a crop with both visible and near-infrared light. This data may be used to generate multispectral pictures that track changes in plants and indicate their health.

Livestock management: Drones may be used to monitor and manage large livestock since their sensors feature high-resolution infrared cameras that can spot a sick animal and take appropriate action. As a result, the influence of drones on precision dairy farming will soon become the new normal.



Apiculture: A Vital Industry

By- Hemant Kumar Korada | Oct. 2022

Apiculture is the human-maintained care of honey bee colonies in order to obtain goods such as honey, beeswax, propolis, and so on. An Apiary or Bee yard is a facility where bee colonies are housed. Honey is classified as a member of the Kingdom Animalia, Phylum Arthropoda, Class Insecta, Order Hymenoptera, Family Apidae, and Genus Apis. A honey bee colony is divided into three castes: Queen, Worker, and Drone. The only fertile female colony is the queen bee. This is the biggest size. There are no wax glands. Live for around 3-4 years. Eggs can be laid at a rate of 1500-2000 each day. Drones: Drones are the colony's male members. Drones may survive for up to 60 days. There is no sting or wax gland. Unfertilized egg development Drone's primary mission is to fertilise the virgin queen. Work Bees have a well-developed sting and a "Pollen Basket" on their hind legs for gathering pollen. They have distinct responsibilities based on their age: Day 1-14: Activities within the hive such as cleaning, feeding the larvae. Day 14-20: Watch over the hive's entrance. Day 21-35: Foraging, or gathering nectar and pollen from the environment.



Honey Bee Species: The biggest honey bee is

1. **Apis dorsata (the rock-bee).** Builds a single huge open comb on high tree and rock branches. This bee produces a big amount of honey, however it is difficult to domesticate.
2. **Apis cerana indica (The Indian Bee):** Medium-sized, hive consists of many parallel combs in hollow of tree trunks, earthen pots, and other similar structures. This bee is not as aggressive and may be domesticated.
3. **Apis florea (Little Bee):** Small in size. Creates solitary little combs in bushes, hedges, and so forth. The honey output is low.
4. **Apis ifera (European bee):** Similar to the Indian bee. This has been implemented in several countries throughout the world, including India. It is simple to domesticate.

Apiculture Products Include:

Honey: Bees generate honey from plant nectar by enzymatic activity, regurgitation, and water evaporation. Honey is a high-energy, vitamin-rich meal. It is used to prevent colds, coughs, and fevers. Honey comprises the following ingredients: Levulose (38.9%), Dextrose (21.28%), Maltose and other sugars (8.81%), Enzymes and pigments (2.21%), and Water (17.20%).

Bee Wax: Bee wax is generated by wax glands on the underside of the work bee's last four abdominal segments. Candle making. Bee wax is also utilised in the production of lotions, lipsticks, and creams.

Royal jelly: The glandular secretions of young worker bees produced by the hypopharyngeal gland in the head. Used in treatment of Diabetes etc. It is also used in healing wounds and boosts immunity

Funding of the Month



Agritech startup Deep Rooted raised \$12.5 million led by IvyCap

By- Niladri Sekhar Dutta | Oct. 2022

Farm-to-consumer startup Deep Rooted has raised \$12.5 million in a Series-A funding round led by IvyCap Ventures. Its existing investors Accel, Omnivore, and Mayfield also participated in the round. The Bengaluru-based startup was co-founded by Avinash B R, Gururaj Rao, Arvind Murali, and Santhosh Narasipura in 2020. Their aim is to become "India's first brand for fruits and vegetables (F&V)". The company currently operates in Bengaluru, Hyderabad, and Chennai, and provides urban consumers with good quality fruits and vegetables directly from farmers. They offer over 200 varieties of fruits and vegetables. They use traditional methods as well as new-age ones like greenhouse, net-house and open fields. They run the largest number of greenhouses across the country.



DeHaat in talks to raise nearly \$100 million and might become India's first agritech unicorn.

Agritech business from Patna is in discussions to raise its Series E round with a pre-money valuation of \$900 million, according to reports. Following the funding round, DeHaat's valuation is anticipated to exceed \$1 billion. The fundraise will help the Sequoia-backed startup leapfrog Flipkart-backed agritech startup Ninjacart in terms of valuation. Ninjacart was last valued at \$812 Mn. DeHaat was last valued at \$500-\$550 Mn after its Series D fundraise in October last year. The agritech startup had bagged \$115 Mn in the funding round led by Belgium-based investment firm Sofina and Lightrock India. The funding round, which also saw participation from Singapore-based Temasek holdings, Prosus Ventures, Sequoia Capital India and FMO, was the largest round by an agritech startup then. DeHaat, founded in 2012 by Amrendra Singh, Shyam Sundar, Adarsh Srivastav and Kumar, offers end-to-end agricultural services to farmers, including distribution of high-quality agri-inputs, customised farm advisory, access to financial services, and market linkages for selling their produce. The startup has created a rural retail network of more than 3,000 DeHaat micro-entrepreneurs for last-mile delivery. It claims to serve more than 650K farmers across Bihar, UP, Jharkhand and Odisha. The funding round can take DeHaat's post-money valuation to over \$1 Bn, making it the first agritech startup in the country to turn unicorn.



Quizomania



1. Royal Jelly is used for the treatment of which disease?

- a) Cancer b) HIV c) Diabetes d) Hypertension

2. How much time Kisan drones take to cover 1 acre land with pesticides?

- a) 45mins b) 30mins c) 10mins d) 15mins

3. Amul has _____ numbers of milk producers linked

- a) 3.6million b) 16million c) 5.2million d) 56.54million

4. The ongoing Russia-Ukraine war has led to a global shortage of _____

- a) Rice b) Wheat c) Barley d) Maize

Mail us your answers at: cabfp@mdim.ac.in
and win some exciting prizes.

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Kushagra



Niladri