

Letter from the Executive Director, Agribusinesses

Crop drying technology:

In Bangladesh more than 10% and 25% of maize and chilli respectively rot each year due to lack of drying facilities. Recognizing this acute problem, ACI Motors has launched new drying techniques- the **Flatbed Dryer** and **Collapsible Dryer** for maize and chilli farmers.

The **Flatbed dryer** will be particularly beneficial for the farmers in the highlands where the temperatures are low. To prevent this loss we have launched a machine which allows short duration drying facilities. Now the same amount of grain which previously took 12 hours to dry can be done in 5 hours only. This hot stove is particularly beneficial during the rush faced while harvesting. The equipment can also dry grain during rainy weather thus avoiding mildew as well as sprouting losses due to humidity.

We have also introduced the **Collapsible Dryer Case (CDC)**, which can be used for a range of agricultural grains. It is a low-cost solution for safe, effective and convenient drying. Since only sunlight is required the equipment can be used in any location as long as there is a flat surface. Maintenance of our dryer is also cost efficient as it is made of woven coated polyethylene (PE). We have also thought about the convenience of transportability and installation where tubing is inflated via foot pump. This acts as a grain retaining wall. A zipper system is also present to close the water resistant flaps in case of rain to keep the grains dry.

ACI promises to bring more such convenient technologies to modernize the agriculture industry of Bangladesh and make it more efficient.



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View exchange meeting between plumbers & retailers

ACI Motors held a Plumbers & Retailers view exchange meeting regarding **ACI Pump** on 17 May 2013 at Godarpar Bazar, Bogra. This meeting was the first of its kind in a series of programs designed to promote the “Pump” division of the business. Around 45 plumbers and 20 retailers attended the meeting, where they voiced their views regarding ACI pump and offered suggestions. The ACI corporate video and a presentation on product quality of ACI Motor’s were shown, through which a message of product superiority was successfully delivered. The presentation was made by Mr. Partha Biswas of ACI Motors. The participants appreciated ACI’s initiative to provide quality product at a competitive price and after sales service assurance. The meeting ended with a sumptuous lunch and gift distribution.



Participation in Agriculture & Livestock Technology Fair at Comilla

ACI Motors proudly received the first prize for their recent participation in the Agriculture & Livestock Technology Fair held at Comilla Town Hall, which was held from 4th to 6th May, 2013. The fair also continued in Brahmanbaria from 5th to 7th May, where a variety of products from ACI Motors was displayed including a new product, **ACI Reaper**. Additional Secretary of the Ministry of Agriculture, Mr. Anwar Faruque inaugurated the program, while the District Commissioner of Comilla and officers of DAE were also present.



ACI Fertilizer launches large scale promotional activities

Promoting Organic Fertilizer in Tea:

The tea gardens are expanding rapidly in Panchagarh district. Many new companies are coming in this sector with high expectations to meet the tea production as per desired level. **ACI's Organic Fertilizer** can support them to meet the desired production level through improving the soil condition of the gardens. Considering market potentiality, **ACI Fertilizer** is promoting Organic Fertilizer to tea gardens across the country. In May 2013, a formal meeting was arranged in Panchagarh where 15 tea garden managers actively participated in the program. Sales Manager, Zonal Sales Manager, Product Executive, Area Executive & Marketing Officer were also present in the program. The tea garden managers showed a positive response towards applying Organic Fertilizer during the running season. One bag of organic fertilizer has been given to every garden as a sample for exhibiting the efficacy of the product.



Promoting of Bumper Fishcal in Aquaculture:

ACI Fertilizer arranged training programs for fish farmers and retailers for the newly launched **Bumper Fishcal** in Rajshahi, Bogra, Rangpur & Comilla. The participants were happy to find a better solution for controlling pH & toxic constituents in their ponds. The Field Force conducted some demonstration in model farmers' ponds to show the efficiency of the product.



Promoting Bioferti & Excel Gold in Mango & Lychee Area:

Fruit farmers have been aggressively using liquid fertilizer and liquid humus. **ACI Fertilizer** understood the market potential here and started promoting their **Excel Gold & Bioferti** to mango and lychee growers. A training program was arranged amongst farmers and retailers in Rajshahi, Chapainawabganj and Pabna. After such rigorous promotional activities the two products saw 50% growth over last year.



Prize Giving Ceremony of Sulphur 90% among the Coupon Winners:

To promote Sulphur 90% a lottery program was held amongst stockiest and retailers. The program was an enormous success as prizes such as **motor cycle, power tiller, laptop, refrigerator, LED tv and diesel engines** were won. The winners were M/S Khan Enterprise, Pro: Md. Alauddin Khan, Manikgonj, M/s. Aklas Uddin Bhuyan, Pro: Aklas Uddin Bhuyan, Netrokona; M/s. Bappi Enterprise, Pro: Md. Golam Rosul, Satkhira; M/s. Mousumi Traders, Pro: Md. Abdul Hakim Mia, Dinajpur; M/s. J.L.B Traders, Pro: Dilip Borua, Chittagong; M/s. Sharmin Enterprise, Pro: Md. Shajalal, Gazipur; M/s. Baroicha Traders, Pro: Md. Mukter Hossain, Narshindi, M/s. M.S. Traders, Pro: Ashim Chakma, Khagrachori.



Trial of sunflower as a crop of choice for Southern Bangladesh

A single crop of T. aman rice is grown per calendar year under saline and water limited conditions in southern Bangladesh. So, there is scope to introduce saline and drought tolerant crops, e.g. wheat, maize, sunflower, sesame, etc as an additional crop. Sunflower is also a crop of choice for farmers due to its wider adaptability, high yield potential, shorter duration and profitability. The crop matures within 80-115 days. To select a good hybrid for farmers, ACI arranged trials of a variety SU 601 in Bogra, Rajshahi and Khulna. The crop matured at 90 days with 100g seed/inflorescence upon planting in late January, 2013. The average plant height was 2.0 m.



ACI Agribusinesses attended the International Conference on Biotechnology

The International Conference on Biotechnology took place at the Westin from 25-26 May 2013. On behalf of ACI Agribusinesses Mr. M Anis Ud Dowla, Chairman of ACI Limited, Prof. Lutfur Rahman, Advisor, M. Saifullah, Head of Strategy, Dr. ASM Nahyan, Sr. Scientific Officer and Adeeba Raihan, Business Information Analyst attended. A commendable speech was given by the Chairman of ACI Limited on the need for Biotechnology from the commercial perspective of the private sector.

The two day program included more speeches and presentations on Medical Biotechnology, Agricultural Biotechnology, Biotechnology and the Economy, Industry & Environment, Research & Development and Microbial Biotechnology. The program was preceded by an Inaugural Ceremony where the honorable Minister of Agriculture, Begum Matia Chowdhury was the Chief Guest.

Begum Matia Chowdhury mentioned the government's support of Biotechnology R&D to tackle the many issues in Bangladesh. Such support is of utmost importance esp. during the production and release of GM varieties. Dr. A Majeed Khan, Chairman of CARES reassured the scientific community that they will wholeheartedly support R&D for valuable causes and try to influence policies to favor Biotechnology. He also mentioned that since the public sector is not as aggressive as they should be regarding research; the entry of private sector into Biotechnology is a must.



ACI Animal Health constantly strives to introduce new kinds of products

ACI Animal Health constantly strives to introduce new kinds of products in the market through innovation in order to solve persisting problems of poultry, cattle & aqua sectors. In May 2013, the business launched five new products. Out of these two were oral solutions for poultry. The **Betamune (50ml)** is an Immunostimulator and **Cocci-Tol Plus (100 ml)** is an Anticoccidial Drug.

Bonacal P (1 lt & 5 lt) is a mineral preparation serving as an oral suspension for dairy, while **Lacto-Spray Standard (25 kg)** is a milk replacer for calves in the dairy industry. For the Aqua portfolio **Feed Gel (1 lt)** was introduced which is a combination of vitamin & amino acids.



Introducing the Collapsible Dryer as a solution for drying chilli, wheat & other grains

ACI Motors has added a new model of Collapsible Dryer, known as **Grain-Pro Dryer**, from Philippines to their long portfolio of products. The device can provide proper drying solution to farmers in the Char areas where manual drying is difficult due to natural disasters, e.g. river damage. The dryer has the ability of reaching temperatures up to 60°C and can accelerate drying time by 60-70% without any operating or maintenance cost. This low cost device has a convenient zipper system which can cover the grain easily, esp. during rainfall thus preventing decomposition.

To promote this product ACI Motors had arranged 4 field demonstration programs at Char Simultar, Sariakandi Bogra district, Char Girish, Kazipur, Sirajgonj district, Char Hizla, Gaibanda district, Char Monia, Islampur and Ja malpur district. Potential farmers, traders, contract growers, UAO, SAO, block supervisors, NDP officers, agri-scientists and researchers witnessed the demonstration.



ACI Seed retailers completed training focused on farmer support

ACI Seed retailers completed a one day training course on Crop production and Seed Marketing to help them identify ways of catering better to the unique needs of the farmers. These retailers are operating small businesses and reaching poor farmers in remote areas. They will pass this knowledge on to the farmers. The training held on May 25, 2013 at Noakhali, attracted 35 seed retailers from Noakhali, Lakshmipur and Feni. Through this program they also learnt about the updated product range on vegetables, rice, maize watermelon etc. The training program was successfully arranged by Area Sales Manager, Comilla with advice and guidance from Dr. Shafiqul Aktar, Business Manager-Seed.

A similar retailer program involving 45 retailers was held on May 28, 2013 at Bogra. The presence of Sales Manager-Seed, Asst. Product Managers and seed marketing expert of BADC made the training much more informative and helpful for the retailers. Mr. Md Shahidullah, Advisor, SEBA Ltd monitored the program on behalf of IFC. Though retailer development is an ongoing event of the company, however, a total 900 retailers will be trained under ACI-IFC sponsorship in 2013. Sales Manager, Mr. Sharfuddin Ahmed said 'The program empowered retailers to perform better and win bigger in market share and seed sales.' At the end of the program, he distributed certificates among the retailers.



Aman Hybrid Rice trial plot visit by foreign Principes

Principles from China visited **ACI Hybrid Rice** plot at BSMRAU in May 2013. A total of forty two exotic materials were evaluated and characterized based on its morphological as well as yield contributing traits. The delegates and **ACI Seed** jointly evaluated the materials and found suitable varieties for Multi Location Trial (MLT) in different geographical locations. From these, ACI Seed will select varieties for commercial purpose and apply for Variety Evaluation and Registration Trial at the Seed Certification Agency.



Deputy Director General of IRRI visits ACI Centre

Deputy Director General (Research) International Rice Research Institute Dr. Achim Dobermann along with Dr. Noel P. Magor, Agricultural Development Specialist and Dr. Timothy Russel, IRRI Representative of Bangladesh paid a visit to ACI Center and discussed ACI's contribution in the rice sector including the present rice research status of ACI Seed. Dr. F.H. Ansarey, Executive Director of ACI Agribusinesses, Prof. Lutfur Rahman, Advisor, Dr. Shafiqul Akhtar, Business Manager of ACI Seed, M. Saifullah, Head of Strategy and Prof. Khaleque Mian, eminent scientist of Bangladesh Sheikh Mujibur Rahman Agriculture University enlightened the delegates on the rice R&D situation and requirements in Bangladesh and ACI.

After a detailed discussion both sides expressed their interest to collaborate regarding rice research and rice market development in Bangladesh. IRRI also showed their willingness to work with ACI and transform Rice Breeding programs in Bangladesh.

The Honorable Chairman, of ACI, Mr. M Anis Dowla and Dr. Arif Dowla, Managing Director of ACI was also present during the meetings and expressed their opinion by accentuating ACI rice research and sought IRRI's cooperation to meet the country's challenges in the 21st Century.

ACI Agribusinesses has arranged an exhibition at ACI Centre's conference room in the honor of the IRRI delegate's where each business unit of ACI Agribusinesses displayed their innovations.



Visit by Director General of AVRDC

Later in the month, Dr. Dyno Keatinge, Director General of the Asian Vegetable Research Development Centre along with his team also graced ACI Centre with their visit on 20th May 2013. Dr. Keatinge shared his global experience with the ACI Seed team led by Dr. F. H. Ansarey, Executive Director of ACI Agribusinesses. Professor Lutfur Rahman, Advisor of ACI Agribusinesses, Dr. Md. Shafiqul Akhtar, Business Manager, managers and breeder of ACI Seed were also present to share their innovation with the DG.

ACI Motors strengthen service facilities

ACI Motors delivered 40 Motor cycles to their service team to materialize its motto "SERVICE WITHIN SIX HOURS". This initiative will mobilize our service and increase the brand value of ACI Motors' products. Proper utilization of time will be ensured through efficient field force on motorcycles, which will allow them to enhance service quality and customer focus.



ACI exhibits top rice varieties to farmers at field days

As part of long-standing and ongoing promotional support, **ACI seed** held 4 field days on hybrid rice at Barisal in May 2013 to share information on the latest and best-performing hybrid varieties, which will help farmers produce more rice. The varieties were **ACI-1** and **Rajkumar**. More than 500 participants, mostly farmers, toured Wazirpur, Barisal, ignoring inclement weather, to see the record breaking yield of these varieties in the fields. The estimated yield was 110 mound/acre at harvest for both the varieties. The farmers were very happy with this yield. DAE personnel, field forces, dealers and retailers of Barishal territory also attended the field days. Area Sales Manager, Barisal

Mr. Obaedur Rahman said "Quality seed matched with good management is the only way farmers can increase their rice yields." He concluded by saying that "ACI delivers quality seed to farmers by selecting high-yielding and locally adapted hybrid rice varieties and assisting them in wide-scale dissemination".

Apart from Barisal, another 40 field days were held in May on hybrid rice: **ACI-1, ACI-2, Folon-2, Rajkumar, Sera, Sampad** and **Sankor-3** in another 14 districts in 7 territories of ACI Seed. It may however be mentioned that, May is the main harvesting month of ACI's hybrid rice and nationwide field days in this month will evidently promote the adoption and dissemination of these best rice varieties to the farmers. All these field days were financed by ACI-IFC together.



Installation and demonstration program of Shallow Tube Well (STW)

ACI Motors recently held a program on installation and demonstration of **Shallow Tube Well (STW)** at Rajendrapur and Rangpur. Such a program was the first of its kind from ACI and was completed successfully in the presence of beneficiary farmers, UAO, SAAO, block supervisors and IAPP high officials.

Earlier ACI Motors had won a tender from Integrated Agricultural Productivity Project (IAPP) for 200 sets of STW, which will be set at 28 upazilas of Rangpur, Lalmonirhat, Nilphamary and Kurigram Districts.



Basic Science may yield crop gains in developing nations

Identifying genes that control how plants absorb and transport nutrients can be a key to improving food security by increasing crop tolerance to poor soils and disease, enriching food with nutrients and reducing fertilizer use. A series of recent advances have been made in locating specific genes that regulate plants' protein channels — the pathways through which substances pass into the root systems and travel around plants. Once identified in a plant species, genes responsible for desirable traits can be inserted into commercial crop varieties using either molecular breeding or genetic modification. Idupulapati Rao, a senior crop scientist at CGIAR's International Centre for Tropical Agriculture, in Colombia, believes it could be up to a decade before these basic science advances reach farmers in developing nations. With funding for crop improvement programs markedly improved in recent years, it is now up to national policymakers to invest more resources in capacity building for these initiatives, particularly in developing nations, where the benefits could be greatest, Rao says.



Common bacteria pinned down as cause of shrimp die-off

A cause of a mysterious disease also referred to as acute hepatopancreatic necrosis syndrome has been devastating shrimp farms across Asia since 2009. The disease has been tracked back to a strain of a bacteria native to coastlines around the world. A research partially financed by the UN Food and Agriculture Organization (FAO) discovered the bacteria, *Vibrio parahaemolyticus*. The new discovery is significant because previous disease outbreaks on shrimp farms have always been caused by viruses, rather than bacteria.

"To find out the cause of the syndrome gives us a more suitable way to prevent and deal with the problem," said Phan Thi Van, vice director of the government-funded Research Institute for Aquaculture No. 1 in Vietnam, which is also one of the affected countries. "As we know the causative agent, we can try to develop more focused as well as precise programs and strategies," he says, adding that new quarantining and sampling requirements may eventually be necessary. She

says the pilot interventions, which largely focus on improving management and water and shrimp quality at shrimp ponds, will require further testing before a large-scale intervention can begin. Fortunately, freezing the shrimp kills the bacterial strain that has caused mass die-offs, Subasinghe says. But he warns that although the vast majority of the world's shrimp is shipped frozen, a small percentage is shipped fresh, posing potential risks for disease transfer.



Scientists develop Superwheat to increase yield by 30%

The new variety of wheat combines an ancient ancestor of wheat with a modern variety. In early trials, the resulting crop seemed bigger and stronger than the current modern wheat varieties, 'BBC News' reported.

Researchers said it will take at least five years of tests and regulatory approval before the wheat reaches the farms. According to the report, one in five of all the calories consumed round the world come from wheat. However, despite steady improvement in the late 20th century, the last 15 years have seen little growth in the average wheat yields.

Scientists used cross-pollination and seed embryo transfer technology to transfer some of the resilience of the ancient ancestor of wheat into modern varieties. The process required no genetic modification of the crops.



Fertilizer provides mixed benefit to Soil in a 50 Year Study

In the present study, Blanco and co-author Alan Schlegel studied a randomized and replicated experiment that was set up in 1961 at Kansas State University's Southwest Research-Extension Center in Tribune. The experimental plots of irrigated and tilled (disk/chisel) continuous corn have received six different rates of ammonium nitrate fertilizer (range 0 to 200 pounds/acre) for 50 years. The plots also received two rates of triple superphosphate fertilizer (0 and 18 pounds/acre) for 50 years, and a higher phosphorus rate (36 lb/acre) for 19 years. When he tested soils from the experimental plots, he saw soil organic carbon concentrations rise gradually with increases in nitrogen fertilization at soil depths from 0 to 6 inches, although not at deeper ones. Similarly, phosphorus fertilization increased soil organic carbon at depths of 0 to 3 inches and 6 to 12 inches. But Blanco observed a different trend in soil aggregate stability, especially when nitrogen and phosphorus were applied together at high rates. At a depth of three to 12 inches, e.g. adding more than 80 pounds

of nitrogen per acre reduced the number of stable soil aggregates by 1.5 times when no phosphorus was applied.

"It's clear that we need inorganic fertilizers to meet the increasing demands for food production, so it's important to look at how the extensive use of inorganic fertilizers affects soil properties in the long term," he says. "The hypothesis is that inorganic fertilization combined with conservation tillage -- strip till, no-till, and others -- may improve soil structural properties relative to conventional tillage systems."



Upcoming Events

1. ACI Cropex organizes "chemical free" mango fair

Date: 1 June onwards

Venue: Road 8, Niketan Housing Society

2. ACI Seed organizes Development Training on Rice & Vegetable Production Technology

Date: 2-4 June 2013

Venue: Bangladesh Agricultural Research Institute, Gazipur

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ACI Agribusinesses

Creating Wealth for Farmers

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