

# Advanced tech brings in farming revolution

SHYKH SERAJ

Dear readers, a few days back I went to Faogan village in Gazipur's Sripur. An industrialist, Sakhawat Hossain, bought lands here many years ago to use for farming. Later, he took the farming to an advanced level and started modern agricultural practice at this farm. For the past couple of years, I've been broadcasting on TV, the high-tech farming happening round the world. I have travelled frequently to Europe, USA, Africa and Asia to broadcast these modern technology examples. These include farming inside a controlled temperature greenhouse without doing it on vast lands and using the world's best and effective farming methods in the age of vertical expansion.

Soiless agriculture and drip water irrigation thus became popular where great entrepreneurs like Sakhawat Hossain came up with challenging ideas and also came along well-educated post-graduate farmers at his greenhouse in Gazipur.

During many years of showcasing hydroponic agriculture, mineral and nutrient solutions, I have always sought investment from the farsighted entrepreneurs so that our farming can keep pace with the most modern and unique farming technologies, practiced around the world. Sakhawat Hossain has followed these intensely and travelled to different parts of the



Shykh Seraj with agricultural entrepreneur Sakhawat Hossain at the latter's innovative greenhouse in Gazipur.

PHOTO: HRIDOYE MATI O MANUSH

Then, I started my own." "I have been watching your show for a long time, since initiation of BTV's Mati O Manush. You also featured the latest greenhouses in Hridoye Mati O Manush from around the world, which really caught my attention to take this big challenge of doing it in my own country."

He asks for the government's sincere help to make fertilizer and other materials easier to import.

I have been showcasing the modern evolution of agriculture for the last fifteen years. If you consider BTV's Mati O Manush, then I have been showing you this gradual change for more than three decades. I have seen the evolution and future of agriculture, its multifaceted and diverse research and practices from up close. Bangladesh, where farming is the central force of our development and economy, needs more and more large investors in modern technology based agriculture. There is enough possibility of business here. The government has to ensure that right now. Sakhawat Hossain's passion is farming and it needs to move into others who have the capacity to make a real change.

Adding a very significant issue at the very end of this article, I would say, farming will advance to the path of mechanization every single day. Bangladesh will be introduced to the modern farming system and due to the contribution of large greenhouse spaces, production will also increase in future. The question remains, these greenhouses spaces or lands are bought from farmers who would sell it at some price of satisfaction. Perhaps, that temporary money will give him a good time for a few months or years. But when his money will be used up and reality will stand in front of that land-lost farmer, he will turn into a labourer of the greenhouse, which was built over his own land. I have seen farmers losing their land rights in many ways in Tongi, Gazipur and Sreepur. However, we as a nation don't want to see this happening. The government should take proper measures so that a farmer can give lease of his lands, and the money that he'll earn from the leasing as per size and value of the land, shouldn't be temporary. He has to be a partner in the greenhouse production initiative and must have a share in it. Through this farmer's life will be secured and also the entrepreneurs can expand their farming business. Eventually, we will see the holistic development in modern farming system of Bangladesh and effective farmer support, if the government takes note of this proposal.

**Shykh Seraj is a Media and Agriculture Development Activist. He is an Ashoka Fellow and recipient of Ekushey Padak, FAO A.H. Boerma Award and many other prestigious accolades. At Channel i, he is Director and Head of News. He is also Director and Host of the popular agro-documentary, "Hridoye Mati O Manush".**



Sakhawat built two greenhouses, full of organic and healthy crops. He is cultivating watermelon, tomato, cherry, cucumber etc. I strongly believe that in the next two to four years, the scenario of Bangladesh's agriculture will go through drastic changes. It will be astounding. Foreign or joint investment will also take place. Food security and safe food are given great importance throughout the world. Here, it is very hard for a general farmer to invest. Because, farming is being commercialised worldwide at a rapid pace. And, Bangladesh cannot trail behind in this process. During past few years, I have observed that investment in farming sector was decreasing, since the poor farmers don't have the capacity for investment. At this critical juncture, when the inception of hi-tech farming came along, businessmen started coming forward with investments, because the key to business is to make profit against the investment.

That's why, big entrepreneurs like Sakhawat came forward with a foresight in his investment.

Paramount Agro Farm has two large greenhouses here, each being 22 thousand square feet. The whole place is totally covered. Seasons don't matter

anymore in Bangladesh. Cultivation goes on throughout the year in every greenhouse, for each crop inside. Crops are growing without the touch of soil. Something I have shown you on my TV shows filming examples from many countries of Middle East, Europe, USA and Asia. That is exactly what is being implemented right here. A year back, the construction of the greenhouses started. Already they are harvesting the crops and marketing is in full swing. The lemons are so lush and fresh and they have the same size and colour. They also ensure exact amount of nutrition for each crop at the times when they require it. Nutrient solution is put into the central water system, it comes through the water pipes set inside the greenhouses. Then it starts dripping from the nozzle to the seedling. Thus, the seedling gets nutrition. If the amount of water becomes excessive, then it will go out from below through an outer pipe to the reserve tank. There is no wastage of water, not a drop.

Planned agriculture is another feature of the greenhouses -- things like, how you want it, what the size should be, what the quantity and quality would be. For example, here, if you

want four fruits in a tree, you will get four; if you want five, then you will get five. Most importantly, there is full guarantee that the production will run as you want. But to fulfill that you need to provide the necessary input accordingly. In brief, everything is done based on precise calculation and demand of quality and quantity.

The tray/bed is 133 feet in length and 10 inches in width. On the tray, there are 148 muskmelon plants. So, basically, there are 148 plants planted on 110 square feet. Each tree grows five fruits. Thus, 740 fruits will be produced in a season. Moreover, you will get harvests from this place four times in a year, every three months. There will be 2960 fruits from four harvests in a year. This is what I have shown earlier at Netherlands' consultancy farm, GreenQ. They are following the same exact method.

I also noticed colour traps inside the greenhouse. They are actually sex pheromone colour traps. There were also blue, yellow coloured traps for insects. This colour trap technology was also broadcast on Hridoye Mati O Manush, where I featured Russell IPM, located in Chester, England.

This is very inspiring. The whole

farming system runs here automatically. They are growing delicious foreign fruits, which also has demand in Bangladesh. There are different varieties of muskmelons here. They are doing one that comes from The Netherlands.

They also do the fusion between modern and old technology. They do hand pollination (wearing safety jackets and gloves).

Sakhawat Hossain shared his story behind this initiative. "In 2008, my mother became a dialysis patient. Doctors said she must eat organic food, not toxic at all. Then I started working on how to grow non-toxic food.

Initially, he learned the works of this greenhouse agriculture by himself. He travelled to many countries for learning and experience. Then he trained workers to turn them into skilled ones.

"I went to countries such as Thailand, Japan to see how hydroponic cultivation takes place. I also went to Malaysia. There is an area called Cameron Highland. Many agricultural works happen there. Many Bangladeshis work on agricultural farms there. I observed and learned.

world to bring in the latest farming practices to Bangladesh and employed many people. To establish his ultra-modern technology based greenhouses, he already invested 2,50,000 USD.

On one and a half bighas of land

## Injured flapshell turtle found in Sreemangal

OUR CORRESPONDENT, Moulvibazar

An injured Indian flapshell turtle, found in Masterpara area under Sreemangal upazila headquarters of the district on Tuesday night, was released to the wild after treatment yesterday.

"Hearing from journalists that the turtle, caught by a local on Tuesday night, was sold to a man, we rescued it today and arranged its primary treatment. Later we released it to Lawachhara forest," said Tabibur Rahman, assistant conservator of forests Wildlife Management and Nature Conservation Department.

The scientific name of flapshell turtle is *lissemys punctata*, he added.

Md Nurul Mohaiman Milton, general secretary of environmentalist journalists forum, said, "We appreciate that the turtle was left in Lawachhara. We should think about the ecological health of this forest. There are many cases where wild animals have been found in the villages around Lawachhara."

Earlier on September 8 in 2015, a

freshwater turtle was rescued from a local who bought it from a fisherman in the upazila, said sources at Wildlife Management and Nature Conservation Department.

In the same way, a fisherman sold a turtle in Sreemangal fish market on October 25 the same year and locals released it later.

Environmentalists have demanded proper steps for protection of forests and biodiversity spots, in addition to implementation of the legal frameworks under Wildlife Protection Act.

Divisional Forest Officer (wildlife) Mihir Kumar Doe said the Indian flapshell turtle eats frogs, fishes, shrimp, snails, aquatic vegetation, plant leaves, flowers, fruits and grass. Its population is threatened due to destruction of wetlands.

The Indian flapshell turtle lives in shallow, quiet, and often stagnant water bodies and tends to burrow into the soft sandy or muddy bottoms. It plays an important role in aquatic ecosystems by feeding on snails, insects, and fragments of dead animals, he said.



Forest officials rescue this injured Indian flapshell turtle from Masterpara area in Moulvibazar's Sreemangal upazila on Tuesday. PHOTO: STAR



Pheromone traps, set at a pumpkin field in Jessore's Keshobpur upazila, successfully checks pest attack on the vegetable plants without the use of harmful chemicals. PHOTO: STAR

## Organic pest control a hit with Jessore farmers

MOHSIN MILON with ANDREW EAGLE

In the villages of Bagda and Majidpur in Jessore's Keshobpur upazila these days, the key word is 'organic'. With chemical pesticides on the nose, over 200 farmers have been using sex pheromone traps to protect their crops from insect attack, with admirable success.

Each trap consists of a capsule containing the female sex hormone of insects, suspended in a plastic bottle with one inch of soapy water. Two holes are added to the middle of the container to allow insects to enter and become trapped. Set on two bamboo sticks in crop fields, the traps prevent pests from mating and thus keep their numbers in check.

According to Keshobpur agriculture officials, all kinds of vegetables including brinjals and pumpkins as well as legumes and kidney beans, are being grown organically in several villages of Majidpur union. As well as being a more natural production method, the strategy saves money for farmers. The cost of expensive chemical pesti-

cides is eliminated. "I have been growing organic pumpkins for the last four years," says Mashiur Gazi, a farmer from Bagda. He's not alone. Organic pumpkin gardens already cover 170 bighas of land in the upazila, with the number of farmers adopting organic methods increasing every day.

At a recent Farmer's Field Day event hosted by the upazila's agriculture extension department office at the council headquarters recently, officials further promoted organic farming. With sex pheromone traps, they advised, expenditure of around Tk 12,000 can effectively protect a pumpkin crop worth up to Tk 45,000 from insect damage.

"The event was aimed at raising awareness about organic technology," says Mahadev Chandra Sana from the department. "We hope to see the expansion of pumpkin production in particular by encouraging farmers' interest in both organic methodologies and in high-yielding pumpkin varieties." Pumpkin is usually harvested within ninety days of being planted, he adds.

## INSTIGATING WIFE'S SUICIDE Cop husband on three-day remand

OUR CORRESPONDENT, Gaibandha

A court here yesterday granted three days remand for Sub-Inspector Debasis Chandra Saha for instigating his wife to commit suicide.

Additional Chief Judicial Magistrate Mainul Hasan Yusuf yesterday granted the remand after a hearing.

Laboni Saha, 28, wife of Debasis, committed suicide by jumping under Lalmoni Express train on August 10 after she was beaten allegedly by her husband.

Gobinda Saha, father of the victim, filed a case with Government Railway Police Station Bonarpara on August 12 against six people -- Debasis, his father Nirmol Chandra Saha, mother Alo Rani Saha, sister Pritilata Saha, Tapon Kumar Saha and Purno Chandra Saha -- on charge of instigating his daughter to commit suicide. Police arrested Debasis and his maternal uncle in this connection.

Altercations between Laboni and Debasis over extramarital affair of Debasis took place frequently since their marriage, locals said.

On August 10, the quarrel intensified further. Debasis beat up Laboni, locked her in a room and went to work, locals said. The victim called a neighbour on cellphone, who unlocked the door. A little later, Laboni went to the nearby railway track and jumped under a running train.

## Bank guard killed by robbers

OUR CORRESPONDENT, Lalmonirhat

A night guard of Rajshahi Krishi Unnayan Bank's Teesta branch was hacked to death by robbers in Lalmonirhat Sadar upazila early yesterday.

The deceased was freedom fighter Abdur Rashid, 65, of Teesta village in the upazila.

Branch Manager Mohammad Al-Quani said a gang killed the night guard and then tried to break the bank locker.

The robbers removed three to four bricks of the locker but failed to loot money from there, he said.

Night guard Rashid was inside the bank. The robbers entered the bank breaking its main gate, said the manager.