

# Growing dragon fruits using LED lights

SHYKH SERAJ

Dear readers, a few days back I went to Comfit Composite Knit Ltd, located in Gorai Industrial Area in Tangail's Mirzapur upazila. The reason to visit the place was that its premises is covered with full of green that attracted me a lot. The owner of the factory has a deep passion for greenery. The factory has a fish farm, a pigeon farm, lemon orchard and dragon fruit orchard alongside some mango trees. Among those, dragon fruits caught my attention the most. There was also another reason to be there.

On a Hridoye Mati O Manush (HMOM) episode you have watched from Shin Shin village in China's Guangdong province where farmers are growing dragon fruit under LED lights during the evening time. They were using the LED lights to make the daylight longer. You probably know that dragon fruit only grows from April to July. For the rest of the year, it is not that much profitable for a farmer to grow the fruit. However, the Chinese farmer used LED lights to produce more fruits and by doing that he could grow the fruit for at least nine months.

The Chinese farmer in Shin Shin told me that he had 800 dragon fruit trees on each acre of land. In a total, he has 32,000 dragon trees on 40 acres of land. He was claiming that he is the only farmer in Guangdong province using LED lights to grow dragon fruits.

"In winter, the day is short. So, to increase the length of the day, I turn on the LED lights at evening and dawn for two hours," said the Chinese farmer.

Many entrepreneurs in Bangladesh have been inspired by watching the documentary. I have heard many have already done it and others to start it. It's very inspiring to see the same thing while I visited Comfit Composite Knit Ltd. It's very similar to the farms I have been across the world that use LED lights to increase the daylight which allows higher production. As Comfit did the same thing watching HMOM, it would certainly be an extension of good agricultural practice through



LED bulbs are lit at the dragon fruit orchard on the premises of Comfit Composite Knit Ltd in Tangail's Mirzapur upazila.

PHOTO: HRIDOYE MATI O MANUSH

media. I discussed with Engineer Kawser Ali, chief operating officer (COO) of the factory.

"When did you start?"

"In 2012."

"Have you seen this tree before?"

"No, I mean I have, but I didn't know that it grew fruits."

"You only saw the tree."

"Yes, we used to call it cactus."

"I have seen the fruits for the first time at Kamruzzaman's orchard in Natore," Kawser said.

"Did an episode on his orchard back in 2009," I said.

"Yes, I brought the seedlings from him," added Kawser.

Comfit is doing their dragon fruit orchard experimentally with only 125 trees. There are pillars, each carrying white LED bulbs hanging from above. This technology has increased production, says the authority.

"Where did you first see this LED technology?" I asked Kawser.

"First through your episode on China. We were highly inspired to try it and we did it this year," replied Kawser.

"Now, what is the result of using this light?" I asked.

"Well, we started this year before monsoon and so far it's going pretty well," he replied.

"You turn the lights on at evening, right?"

"Yes."

"How long do you keep them on?"

"Till 10:00pm to 10:30pm."

This garments management has also started rooftop farming. They have constructed another building just beside the factory. I could see the green rooftop from the dragon orchard. I have seen many other factories where roofs are left abandoned. The owner is highly conscious about ensuring a green environment.

They are cultivating different varieties of fish in a pond and have a lemon orchard as well.

"So, where did this motivation come from?" I asked Kawser.

"Our Managing Director Firoz Alam felt that there is no better tool for natural beautification than greenery. Another reason is to meet our nutrition demand. It is risky to have vegetables from outside. They are adulterated. We are also doing rooftop farming as you can see which we distribute among the employees," said Kawser.

They have planted Vietnamese coconut trees, different varieties of vegetables, flower, mango and cultivated fish alongside pigeon and bird firm.

Dear readers, let me tell you that the use of LED lights started in the farming sector at Pasona O2, an underground farm located in a former bank vault within the bowels of Japan's

business district Tokyo back in 2005.

Also in the Netherlands, crops are grown under controlled light system, temperature and humidity at GreenQ since 2016. With usual sunlight farmers of the Netherlands could grow 80 kilogram of tomato from a single plant. However, using LED lights they can grow 90 kilogram tomato in the greenhouse of GreenQ.

Kawser says they're getting great results using LED lights.

"What benefits are you getting using LED lights?"

"More yields and size and quantity both far better."

"Do you think the lights played a role here?"

"Yes, this change took place in a year. Compared to the last year, we're getting better yields, using the lights."

"We have already harvested three times this year and preparing to get the fourth," says Kawser.

"How much a tree produces in a season?" I asked.

"30 kilogram from start to finish," Kawser replied.

"And, the size?" I asked.

"Each weighs around 400 to 500 grams," he said.

"What fertilizer do you use?" I asked.

"We use TSP, urea, potash, cow dung and compost fertiliser," he replied.

Finally, the sun was about to set in the

western sky and as soon as the sun went down, the lights switched on. It was beautiful to watch from up close. It felt like farming has changed drastically in our country and the global use of technology is gradually reaching the fields of Bangladesh.

Through trial and error, Comfit Composite Knit Ltd is moving onwards with dragon fruit farming under LED lights. Indeed, we are in the age of technology now. Thousands of technologies are being used in the farming sector. Every day something new is arriving. Those who are welcoming technology out of passion or commercial purpose, new dimensions farming are opening for them. However, it is very important to have a clear concept of technology. It is essential to know what is good or bad. I believe that educated and progressive entrepreneurs will go far ahead using technology in the farming sector. I also hope these technologies will also reach the farmers across the country. When all our farmers would be able to use diversified technologies in different crops, the production will be boosted for sure.

Dear readers, while documenting the video at Comfit, its Managing Director Firoz Alam was very sick and that is why I couldn't interview him. Firoz passed away before the programme was broadcast on Channel i and he won't be able to read this article either. May his green soul rest in peace.

Shykh Seraj is Bangladesh's pioneer development journalist. He received country's two highest civilian honours, Swadhinata Puroshkar and Ekushey Padak, respectively. He is an Ashoka and Bangla Academy Fellow. He also received highest award for agricultural journalism from the United Nations, FAO A.H. Boerma Award, Gusi Peace Prize (Philippines) and many other prestigious accolades at home and abroad. At Channel i, he's the Founder Director and Head of News. He's also Director and Host of Channel i's popular agro-documentary, Hridoye Mati O Manush.




Buyers and sellers at the weekly boat market in Narail's Dohar Ramsidhi village recently.

PHOTO: COLLECTED

## Crunch time for Narail boat makers

PARTHA CHAKRABORTY, Bagerhat

During monsoon, when there is water everywhere, people need dinghy or small open boats that are easier for rowing in shallow water by just one person. And the boat craftsmen of Dohar Ramsidhi are specialised in making just that.

As many as 25 families are still holding onto their ancestral trade of boatmaking from wood in the village, under Banshgram union of Narail's Sadar upazila.

Nasim Sheikh came to the Dohar Ramsidhi boat market from Mirzapur in Kalia upazila. While browsing through boats at the market, he said during monsoon, a dinghy comes in handy to move about, using only one paddle, from one house to another and also for other chores such as transporting crops, fishing or plucking water lily.

The unique village is surrounded by small canals and wetlands such as haors and baors that remain submerged during most parts of the monsoon. Besides, there are many fish enclosures in the region.

Although small wooden boats are still high in demand in the region and people from even

surrounding districts come to the village to buy the boats, the boat craftsmen there have been facing severe cash crunch over the past few years.

Continued rise in the price of its key component, wood, has lowered the profit margin of the boat makers, resulting in a shortage of capital that they need to cater to the demand that soars during the monsoon.

There used to be three boat markets in Abalgati in Khulna and Pairoli and Kharia in Narail many years ago, but the one in Dohar Ramsidhi village has been the only surviving boat market in the region over the last ten years, said locals.

On an average, 80 to 90 dinghies are put on sale at the market, held on Wednesdays only, they also said.

Boat craftsman Shishu Sikdar said the earnings they made from sales during monsoon used to be enough for their family throughout the rest of the year, but it is becoming increasingly difficult to survive with the dwindling profit.

Their profit used to be good when they could sell a boat for Tk 4,000 to Tk 4,500 after spending Tk 3,000 on each. But lately, when the

demand reaches its peak during the monsoon, they fall short of the demand due to fund shortage. During off-peak season, they do not have any other option but to sell each boat for as low as Tk 3,100.

Many boat makers are going bankrupt after getting loans at high interest rates from local non-government organisations, Shishu said, adding that government organisations like Bangladesh Small and Cottage Industries Corporation (BSCIC) should extend their assistance by introducing low-interest loans for the boat makers.

Susen, another boat maker from the village, said they could keep up with the demand during peak season if they could engage three hired hands on each boat, but now they cannot afford to pay the workers as their profits have been shrinking day by day.

He also hoped that the government would come forward with easy loan facilities for them.

Contacted, ME Mashrabi Shams, deputy manager (in Charge) of BSCIC in Narail, said he also came to learn about the financial troubles of boat makers in Dohar Ramsidhi recently and he would draw attention of the higher authorities on the matter.

## Missing girl's body recovered

OUR CORRESPONDENT, Tangail

The body of a five-year-old girl was recovered from the Louhajang river in Kalihati upazila yesterday, two days after she went missing on Monday.

The deceased, Bhabna Akter, was daughter of Babu Miah of Noyapara village in the upazila.

Officer in Charge of Kalihati Police Station Hasan Al Mamun said local fishermen spotted the body while fishing on the river near Elenga area in the morning.

The girl went missing after she fell into the Louhajang river from a boat on her way home from a local madrasa.

Firefighters launched a rescue operation the same day, but failed to recover the body, said the police officer.

## Youth beaten for protesting stalking of sister

OUR CORRESPONDENT, Lalmonirhat

Stalkers beat up a youth mercilessly as he protested stalking of his sister at Bherberhat village in Patgram upazila of the district on Tuesday.

The victim is Sumon Islam, 25, son of Abdul Gafur of the village.

He is now undergoing treatment at the upazila health complex, said Sumon Kumar Mohanta, officer-in-charge (OC) of Patgram Police Station.

Sumon said their neighbour Rana Islam, 24, son of Abdur Rahman of the area, used to stalk his younger sister for long.

"I made protest several times but Rana did not stop stalking his sister," said Sumon.

"On Tuesday afternoon, Rana and his five to six cohorts started beating me with iron rods and wooden sticks on the village road when I protested against stalking my sister," he said.

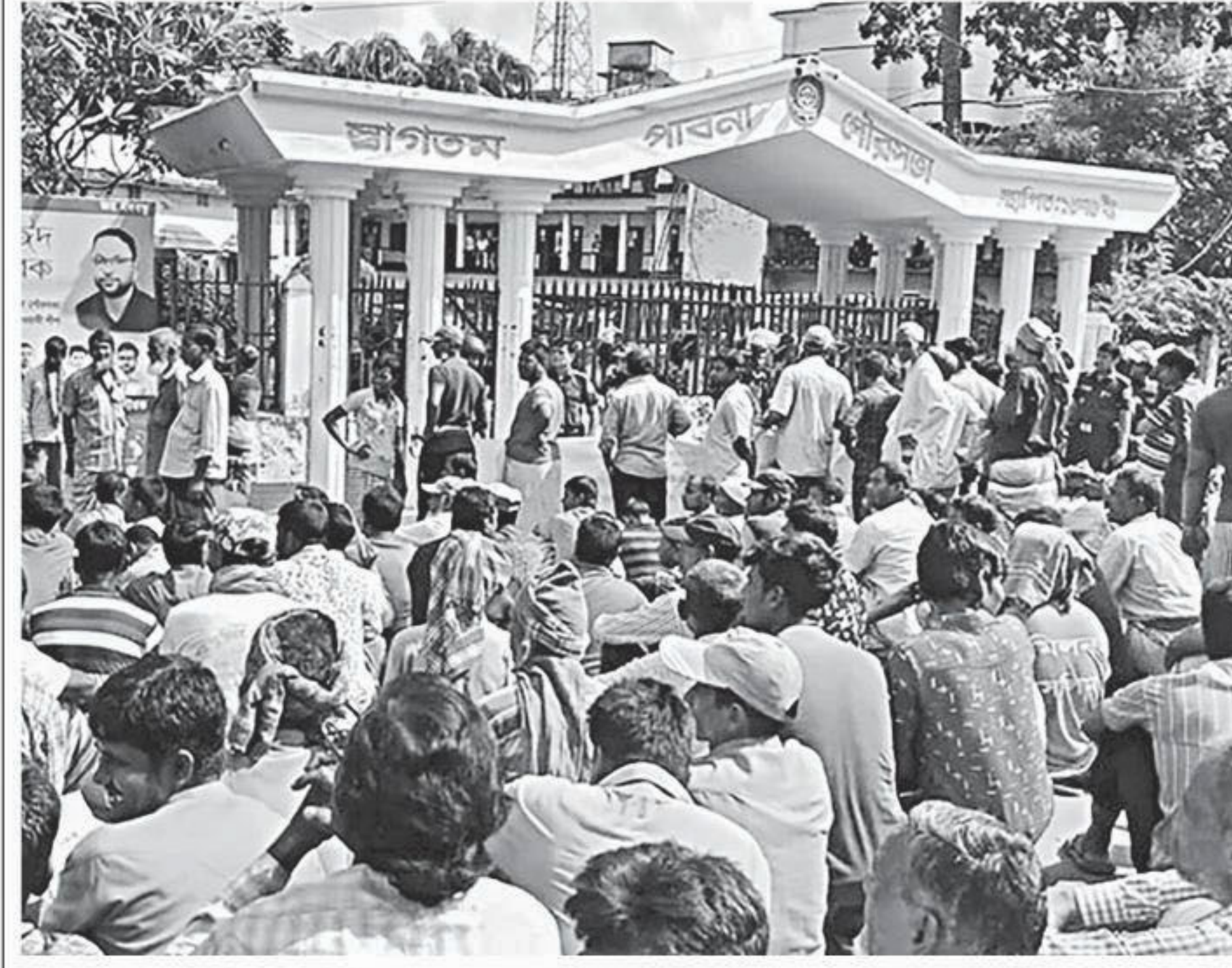
Earlier, they informed local union parishad member and chairman about staking of her daughter, said the victim's mother.

On Tuesday night, the girl's father lodged a case with the police station against Rana and his cohorts.

The father said police assured him of taking action against the culprits after investigation.

Contacted, accused Rana said it was a matter of love. Sumon was not beaten with iron rods or wooden sticks. He was slapped only.

The OC said they will take action after investigating into the matter soon.



Owners and drivers of rickshaws and rickshaw-vans stage demonstration in front of Pabna municipality office yesterday demanding arrangement for smooth movement of the non-motorised vehicles in the district town.

PHOTO: STA